

Seward Airport Improvements Project (Project No. Z548570000)

Public and Agency Scoping Materials January 2017 through August 2018 [This page intentionally left blank.]

Public Scoping Contents

Public Correspondence

Date	Communication Type	From (Name)
March 1, 2017	Project status email	SolsticeAK on DOT&PF's behalf
March 1, 2017 –	Public comments	C. Griswold with SolsticeAK on DOT&PF's behalf
May 3, 2017		
September 8, 2017	Public comment	C. Griswold
October 30, 2017	Public comment	C. Griswold to SolsticeAK
October 30, 2017	Public comment	C. Griswold to DOT&PF
November 15, 2017	DOT&PF response	DOT&PF
March 1, 2017	Public comment	J. Hunt
June 7, 2017	DOT&PF response	SolsticeAK on DOT&PF's behalf
May 1, 2017	Telephone conversation	R. Linville with SolsticeAK
October 4, 2017	Project status email	SolsticeAK on DOT&PF's behalf
October 4, 2017	Public comment	B. Snowden
October 14, 2017	Public response	B. Snowden
November 10, 2017	DOT&PF response	SolsticeAK on DOT&PF's behalf
November 12, 2017	Public response	B. Snowden
December 7, 2017	DOT&PF response	SolsticeAK on DOT&PF's behalf
October 5, 2017	Public comment	J. Olive
December 7, 2017	DOT&PF response	SolsticeAK on DOT&PF's behalf
December 11, 2017	Public response	J. Olive
February 12, 2018	DOT&PF response	SolsticeAK on DOT&PF's behalf
October 12, 2017	DOT&PF inquiry	DOT&PF
October 13, 2017	Public comment	T. DiMarzio
Stakeholder Working Group Meeting #4 Correspondence and Documentation		
	Communication/	
Date	Documentation Type	From (Organization, Name)
September 15 and 29, 2017	Meeting invitation and reminder emails	SolsticeAK on DOT&PF's behalf
October 2, 2017	Meeting notes	Compiled by SolsticeAK
October 3, 2017	Telephone conversation	City of Seward, R. Long with DOT&PF

Agency Correspondence Contents

Agency Scoping Comments and Correspondence

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Date	Communication Type	From (Organization, Name)
January 24, 2017	Scoping materials	Alaska Dept. of Transportation & Public Facilities (DOT&PF)
January 25, 2017	Agency comment	Alaska Dept. of Fish and Game, Soldotna Office, J. Selinger
February 3, 2017	Agency comment	U.S. Army Corps of Engineers (USACE), L. Speerstra
February 15, 2017	Agency comment	Kenai Peninsula Borough (KPB), Seward/Bear Creek Flood
		Service Area (SBCFSA), S. Presley
February 15, 2017	Agency comment	KPB, SBCFSA, W. Williamson
April 19, 2017	DOT&PF response	DOT&PF
February 17, 2017	Meeting invitation	Solstice Alaska Consulting (SolsticeAK) on DOT&PF's behalf
March 1, 2017	Reminder and materials	SolsticeAK on DOT&PF's behalf
February 22, 2017	Agency comment	City of Seward, D. Atwood and D. Glenz (for R. Long)
April 19, 2017	DOT&PF response	DOT&PF
February 23, 2017	Agency comment	Alaska Dept. of Natural Resources, Division of Mining, Land,
		and Water, C. Kindred
February 23, 2017	Agency comment	USACE, J. Hyslop
May 26, 2017	Teleconference	USACE with DOT&PF, PDC Engineers, SolsticeAK
February 24, 2017	Agency comment	Alaska Railroad Corporation, B. Lindamood
April 18, 2017	DOT&PF response	DOT&PF
March 1, 2017	Agency comment	KPB/River Center, B. Harris
March 22, 2017	Scoping materials	DOT&PF to U.S. Fish and Wildlife Service (USFWS)
March 23, 2017	Agency comment	USFWS, Anchorage Field Office, L. Kenney
May 10, 2017	Scoping meeting notes	SolsticeAK on DOT&PF's behalf
July 26, 2018	Federal Emergency Management Agency (FEMA) Scoping email	Hydraulic Mapping and Modeling (HMM), K. Karle on DOT&PF's behalf
July 26, 2018	Agency comment	FEMA, T. Perkins
July 27, 2018	Agency comment	FEMA, K. Wood-McGuinness
July 27 & 30, 2018	Consultant responses	HMM, K. Karle for DOT&PF
August 8, 2018	Scoping email	HMM, K. Karle Re: tele. communication with Dept. of Commerce, Community, & Econ. Development, J. Smith
August 10, 2018	Consultant response	HMM, K. Karle
August 10, 2018	Consultant response	HMM, K. Karle Re: tele. communication with City of Seward, A. Bacon
August 23, 2018	Agency comment	FEMA, P. Janke

Section 106 Comments and Correspondence

Date	Communication Type	From (Organization, Name)
January 29, 2018	Consultation initiation	DOT&PF, Wanzenried, M.
February 14, 2018	Agency comment	Alaska State Historic Preservation Office (SHPO), Rollins, M.
June 5, 2018	Findings letter	DOT&PF, Wanzenried, M.
June 14, 2018	Concurrence letter	SHPO, Bittner, J.

Public Correspondence

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From: Solstice AK <solsticeak@solsticeak.com>
To: Solstice AK <solsticeak@solsticeak.com>
Sent: Wednesday, March 1, 2017 12:55 PM

Subject: Seward Airport Improvement Project Update, February 2017

Thank you for your continued interest in the Alaska Department of Transportation and Public Facilities (DOT&PF) Seward Airport Improvement Project. You received this email because you have previously indicated interest in this project.

The project website has been updated and the following materials are now available on the Seward Airport Improvement Project website at www.dot.state.ak.us/creg/sewardairport:

- Project Frequently Asked Questions (FAQs) and Responses: See the project FAQs page www.dot.state.ak.us/creg/sewardairport/faq.shtml
- Resurrection River Dredging Memo.: See the project Document Library <u>www.dot.state.ak.us/creg/sewardairport/documents.shtml</u> for an analysis of river channel dredging considerations

You will continue to receive updates as new information is available for this project. Meanwhile, feel free to contact Robin Reich, public involvement coordinator, at solsticeak.com with questions.

Thank you.

Solstice Alaska Consulting, Inc 2607 Fairbanks Street, Suite B, Anchorage, AK 99503 www.solsticeak.com



From: rainyday <c_griz@yahoo.com>
Sent: Wednesday, March 1, 2017 3:16 PM

To: Solstice AK

Subject: Re: Seward Airport Improvement Project Update, February 2017

Attachments: Screen Shot 2017-03-01 at 2.55.45 PM.png

Hi Robin,

I noticed the date on the flyer says 2016 in two places, screen shot attached.

As an avid birder, I would be happy to help compile data on the use of the wetlands/tidal flats/estuary areas. These areas are important year-round for birds and other wildlife, not just during migration. Please let me know what data would be significant.

Best, Carol Griswold Seward, Alaska From: Solstice AK < solsticeak@solsticeak.com >

To: rainyday <<u>c griz@yahoo.com</u>>
Sent: Tuesday, April 4, 2017 12:53 PM

Subject: RE: Seward Airport Improvement Project Update, February 2017

Thank you, Carol. This email is to let you know that your email has been received. Also, any data that you have/would be willing to share would be helpful, thank you. Would it be easier to discuss it over the telephone (907-929-5960) or send it via email?

Please also note that the flyer that says 2016 was for a 2016 meeting; thank you for letting us know that it was misleading! Hopefully, the website is now easier to understand, thanks to your catch.

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



From: rainyday [mailto:c_griz@yahoo.com]
Sent: Tuesday, April 4, 2017 2:37 PM

To: Solstice AK < solsticeak@solsticeak.com >

Subject: Re: Seward Airport Improvement Project Update, February 2017

Hi Solstice.

The bird list would be easier by email. Is just a list sufficient? Or do you need year-round, migratory, nesting data?

Carol

From: Solstice AK < solsticeak@solsticeak.com >

To: rainyday <<u>c griz@yahoo.com</u>>
Sent: Tuesday, April 4, 2017 2:39 PM

Subject: RE: Seward Airport Improvement Project Update, February 2017

Hello Carol.

The bird list would be great. If you have other data that is easily shareable, we would be glad to have it, as well.

Thank you.

-

From: rainyday [mailto:c griz@yahoo.com]
Sent: Thursday, April 13, 2017 10:06 PM
To: Solstice AK <solsticeak@solsticeak.com>

Subject: Re: Seward Airport Improvement Project Update, February 2017

Hi Solstice,

I haven't forgotten you!

I made a draft bird list and am waiting for another birder to look it over before I send it. There are over 100 species of birds!

Best, Carol

From: Solstice AK <solsticeak@solsticeak.com>

To: rainyday < c griz@yahoo.com > Sent: Friday, April 14, 2017 9:09 AM

Subject: RE: Seward Airport Improvement Project Update, February 2017

Wonderful. Thank you very much!

From: rainyday [mailto:c_griz@yahoo.com]
Sent: Thursday, April 20, 2017 5:29 PM
To: Solstice AK <solsticeak@solsticeak.com>

Subject: Seward Airport Improvement Project Open House?

Hi Robin,

Is there an open house public meeting scheduled for Seward any time soon? I only see the April 20, 2016 meeting on the website.

Thank you, Carol Griswold

From: Solstice AK < solsticeak@solsticeak.com >

To: rainyday < c griz@yahoo.com >

Cc: "Beaton, Barbara J (DOT)" < barbara.beaton@alaska.gov >

Sent: Wednesday, May 3, 2017 9:43 AM

Subject: RE: Seward Airport Improvement Project Open House?

Hello Carol,

There will be another public open house after the draft Environmental Assessment has been released for comment around the end of the year.

Your continued interest and input on the project have been helpful, and we are looking forward to seeing the bird information you are compiling.

Thanks.

Robin Reich

Office: 907.929.5960

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



From: rainyday <c_griz@yahoo.com>
Sent: Wednesday, May 3, 2017 10:47 AM

To: Solstice AK

Cc:Beaton, Barbara J (DOT)Subject:Seward Airport bird list v 1.1

Attachments: 2017 Seward Airport Birds compiled by Carol Griswold.docx

Hi Robin,

Attached is version 1.1. The other birder has been very busy traveling and birding, but if she has any suggestions, I will send those along as V 1.2.

Please let me know if I can be of further assistance.

Best, Carol

Attachment to May 3, 2017 C. Griswold Email

2017 Seward Airport Birds Checklist V 1.1 compiled by Carol Griswold c_griz@yahoo.com Listed in taxonomic order.

The Seward Airport meadows, estuaries, tidal sloughs, saltwater marsh, wetlands, and mudflats provide a vital habitat for resident birds, northern Alaska nesters, Oceanics, Neotropicals, Canada and Western US birds, and Asiastics. Birds and other wildlife depend on the specialized plants that grow in this habitat. Several streams in this area are habitat for salmon, dolly varden, sculpin, flounders, and other fish. Mitigation of developmental impacts to protect the integrity of this ecosystem also protects the Seward Airport from erosion and flooding.

Note that the area directly south of the existing short runway is an extremely important habitat not only for migrating birds, but is the location of a large Arctic Tern nesting colony. This is one of the few in the Seward area, and one of the largest in the Kenai Peninsula.

Ducks, Geese, Swans

Greater White-fronted Goose

Snow Goose

Ross's Goose

Brant

Cackling Goose

Canada Goose

Trumpeter Swan

Tundra Swan

Gadwall

Eurasian Wigeon

American Wigeon

Mallard

Blue-winged Teal

Cinnamon Teal

Northern Shoveler

Northern Pintail

Green-winged Teal

Canvasback

Ring-necked Duck

Greater Scaup

Lesser Scaup

Bufflehead

Common Goldeneye Barrow's Goldeneye Common Merganser

Herons

Great Blue Heron

Hawks, Eagles

Bald Eagle Northern Harrier Sharp-shinned Hawk Northern Goshawk Red-tailed Hawk (Harlan's) Golden Eagle

Cranes

Sandhill Crane

Lapwings, Plovers

Black-bellied Plover American Golden-Plover Pacific Golden-Plover Semipalmated Plover

Sandpipers, Phalaropes

Spotted Sandpiper Solitary Sandpiper Greater Yellowlegs Lesser Yellowlegs Upland Sandpiper Whimbrel **Hudsonian Godwit** Bar-tailed Godwit Marbled Godwit Black Turnstone Sanderling Semipalmated Sandpiper Western Sandpiper Least Sandpiper Baird's Sandpiper Pectoral Sandpiper

Sharp-tailed Sandpiper

Rock Sandpiper

Dunlin

Short-billed Dowitcher

Long-billed Dowitcher

Wilson's Snipe

Phalarope sp

Gulls, Terns

Black-legged Kittiwake

Bonaparte's Gull

Mew Gull

Herring Gull

Glaucous-winged Gull

Caspian Tern

Arctic Tern

Pomarine Jaeger

Auks, Murres, Puffins

Common Murre

Crested Auklet

Pigeons, Doves

Rock Pigeon

Owls

Great Horned Owl

Short-eared Owl

Kingfishers

Belted Kingfisher

Woodpeckers

Downy Woodpecker

Falcons

Merlin

Peregrine Falcon

Tyrant Flycatchers

Alder Flycatcher

Shrikes

Northern Shrike

Crows, Jays

Black-billed Magpie Northwestern Crow Common Raven

Swallows

Tree Swallow Violet-green Swallow Bank Swallow Cliff Swallow Barn Swallow

Chickadees

Black-capped Chickadees Chestnut-backed Chickadees

Nuthatches

Red-breasted Nuthatch

Creepers

Brown Creeper

Wren

Pacific Wren

Dippers

American Dipper

Kinglets

Golden-crowned Kinglet Ruby-crowned Kinglet

Old World Flycatchers

Northern Wheatear

Thrushes

American Robin Varied Thrush Hermit Thrush

Wagtails, Pipits

Red-throated Pipit American Pipit

Longspurs, Snow Buntings

Lapland Longspur Smith's Longspur Snow Bunting McKay's Bunting

Wood-Warblers

Orange-crowned Warbler Yellow Warbler Yellow-rumped Warbler Townsend's Warbler Wilson's Warbler

Emberizids

Savannah Sparrow Song Sparrow Lincoln's Sparrow Dark-eyed Junco

Blackbirds

Red-winged Blackbird Rusty Blackbird

Fringilline, Card. Finches

Red Crossbill White-winged Crossbill Common Redpoll Pine Siskin From: rainyday <c_griz@yahoo.com>
Sent: Friday, September 8, 2017 4:02 PM

To: Solstice AK

Subject:Seward Airport Improvement Project commentsAttachments:09-07-17 Seward Airport Improvement Plan.docx

Hi Robin,

I noticed in Seward City News that our city manager is lobbying the Governor for an extension of the Crosswind Runway.

I'd like to lobby against it. Comments attached.

Thank you, Carol

Attachment to September 8, 2017 C. Griswold Email

September 7, 2017

Hi Angelle-Leigh,

Re: Seward Airport Improvement Plan

I have great concern about preferred Alternative 2.2 which would shift the existing, 2,289' x 75' Crosswind Runway (16-34) to the east and extend it by 1, 011 feet to 3,300'x75'. This plan would also abandon the existing 4,249' x 100' Main Runway (13-31) that also serves as a levee to protect the rest of the infrastructure to the west from the Resurrection River.

I. The Seward Airport was built in an alluvial floodplain created by the powerful glacially fed Resurrection River. Like a fire hose, it sprays water laden with tons of silt, gravel, and larger rock across its many braided channels. When the Airport was built, the river channels were far to the east. Now the river, channeled through the three highway bridges, has turned to point directly at the Main Runway. Redirecting the river away from the runway by dredging is not one of the options, as, according to the Seward Airport Improvement Plan, it would require continual maintenance and permitting, a dedicated funding source and staff with no guarantee that the excavated channel would remain stable.

Any solution will require continual funding source and staff with no guarantees of success; dredging and/or gravel extraction should be an option. A very successful gravel extraction operation sits right in between channels of the Resurrection River upstream of the highway bridges. As far as I know, their considerable operation has never flooded. They are permitted to extract gravel from the dry areas as the river allows. Why isn't gravel extraction to control the river's channels an option?

II. Closing and abandoning the Main Runway will allow Resurrection River to continue to undercut the runway. Continuing accelerated melting of Exit Glacier will increase the amount of gravel and power of the river, and result in the failure of the levee. Sooner or later, the river will move west until it is once again threatening to erode and demolish the Crosswind Runway and over a million dollars of infrastructure built next to Airport Road. Only about 1000 feet separate the two runways at the cross taxiway.

Flooding, erosion, and sediment dump will continue, if not controlled, around the end of the Crosswind Runway directly to many more millions of dollars of infrastructure at the Alaska Railroad freight dock, cruise ship dock, and port. That is only a matter of time, and could happen quickly.

The long runway must be raised, fortified, and maintained as a levee with the runway on top to protect the rest of the airport and infrastructure to the west. It is risky and shortsighted to abandon it.

III. The Seward Airport is surrounded by meadows, estuaries, tidal sloughs, saltwater marsh, wetlands, and mudflats that provide a vital habitat and specialized plants for wildlife including black and brown bears, moose, coyotes, and river otters. Bird observations compiled over the years list 120 species at the Seward Airport, including resident species, northern Alaska nesters, Oceanics, Neotropicals, Canada and Western US birds, and Asiatics.

The Crosswind Runway points directly at an extremely important habitat for resident and migrating birds, and the location of a large Arctic Tern nesting colony. This is one of the few in the Seward area, and one of the largest in the Kenai Peninsula. Extending the runway will bring all the fixed wing aircraft, including small jets, much closer and lower to the wetlands and ponds upon approach and departure. This will unnecessarily increase the risk of bird-aircraft collisions, and jeopardize the aircraft and wildlife.

Several streams in this area are habitat for salmon, Dolly Varden, sculpin, flounders, and other fish. Not far to the west of the Crosswind Runway is a salmon stream. What is the impact of a raised and lengthened runway on this salmon stream?

Mitigation of all developmental impacts are critical to protect the integrity of this wetlands ecosystem that also protects the Seward Airport and adjacent Alaska Railroad property from erosion, flooding, siltation, and the threats of continuing sea level rise. Extending the Crosswind Runway will negatively impact this delicate ecosystem.

Ironically, every September the Kenai Peninsula Borough issues a Proclamation supporting National Estuaries Week wherein all estuaries are integral to the State of Alaska; estuaries are unique coastal environments that support more life per square inch than any other ecosystem on Earth, providing habitat for countless species of fish, shellfish, birds, and marine mammals; this annual celebration of the vibrant coastal areas where rivers meet the sea presents an opportunity to learn more about these coastal ecosystems and how Alaska's citizens can help to protect them; estuaries provide numerous protection benefits to coastal populations, acting as a first line of defense against storms, rising sea levels, and the effects of a changing climate as well as a natural water filtration system; protecting our local fish habitats and populations will benefit Alaska's commercial fishing industries; the state is committed to protecting coastal ecosystems; protecting and restoring our estuaries is vital to our local and national economy.

Abandoning the main runway and extending the short runway contradicts every point of this National Estuaries Week Proclamation.

IV. The only alternative that best supports small jet traffic is Alternative 1.1: retain the Main Runway. Small jets require at least 4,000 feet. A longer runway is needed for medevac jets, Coast Guard C-130s, State Trooper helicopters, business and private jet traffic.

The Main Runway is 4,249 feet long and 100 feet wide. Extending the Crosswind Runway by 600' or 1,011' would not support small jet traffic. The runway would still only be 75 feet wide, which reduces the margin of safety. Extending the Crosswind Runway by 1,711 feet to 4,000 feet requires an additional funding source, which has not been identified or secured. The additional 700 feet does not qualify for federal funding.

V. Alternative 2.2 may be "the most viable alternative in terms of design and engineering considerations, and meet the community's near-term aviation needs for general aviation and medevac operations" but all the issues impacting the existing Main Runway and worse will soon be those of a longer, Crosswind Runway. This is a short-term, and expensive choice that ignores the looming, real issue of Resurrection River.

The only viable alternative, if dredging the main channel is not an option, is Alternative 1.1, Reconstruct the Existing Main Runway 13-31 above the 100-year flood level, install riprap to protect the embankment from flooding AND bring it up to its previous weight-bearing standards.

Thank you, Carol Griswold Seward, Alaska

Solstice AK

From: rainyday <c_griz@yahoo.com>
Sent: Monday, October 30, 2017 11:39 AM
To: Beaton Barbara J (DOT); Mark Boydston

Cc: Solstice AK

Subject: Seward Airport Alternative comments

Attachments: 10-30-17 Seward Airport Improvement Plan.docx

Hello All,

Attached please find my comments about the Seward Airport preferred Alternative 2.2.

Thank you, Carol Griswold Seward, AK

Attachment to October 30, 2017 C. Griswold Email

October 30, 2017

Mark Boydston Environmental Impact Analyst II, ADOT 907-269-0524, FAX 907-243-6927 mark.boydston@alaska.gov

Barbara Beaton, PE Project Manager Dot and PF barbara.beaton@alaska.gov 907-269-0617

Robin Reich, Public Involvement Coordinator robin@solsticeak.com
http://www.solsticeak.com/

Re: Seward Airport Improvement Plan

I have great concern about preferred Alternative 2.2 which would shift the existing, 2,289' x 75' Crosswind Runway (16-34) to the east and extend it by 1, 011 feet to 3,300'x75'. This plan would also abandon the existing 4,249' x 100' Main Runway (13-31) that also serves as a levee to protect the rest of the infrastructure to the west from the Resurrection River.

I. The Seward Airport was built in an alluvial floodplain created by the powerful glacially fed Resurrection River. Like a fire hose, it sprays water laden with tons of silt, gravel, and larger rock across its many braided channels. When the Airport was built, the river channels were far to the east. Now the river, channeled through the three highway bridges, has turned to point directly at the Main Runway. Redirecting the river away from the runway by dredging is not one of the options, as, according to the Seward Airport Improvement Plan, it would require continual maintenance and permitting, a dedicated funding source and staff with no guarantee that the excavated channel would remain stable.

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Extending the Crosswind Runway also places it in an area that experiences flooding, extreme high tides, surf and ice impacts, overflow from the adjacent slough and ponds. Impacts and maintenance throughout the year including dramatically different winter conditions must be evaluated.

V. Alternative 2.2 may be "the most viable alternative in terms of design and engineering considerations, and meet the community's near-term aviation needs for general aviation and medevac operations" but all the issues impacting the existing Main Runway and worse will soon be those of a longer, Crosswind Runway. This is a short-term, and expensive choice that ignores the looming, real issue of Resurrection River.

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Thank you, Carol Griswold Seward, Alaska From: rainyday <c_griz@yahoo.com>
Sent: Monday, October 30, 2017 11:40 AM
To: Mark Boydston; Beaton Barbara J (DOT)

Cc: Solstice AK

Subject: Fw: Seward Airport high tide photos

Attachments: P1040167-Seward-airport-at-high-tide.jpg; P1040171-Seward-Airport-at-high-tide.jpg;

Screen Shot 2016-04-27 at 7.42.20 PM.png; P1040171-Seward-Airport-at-high-tide-

comments.jpg

Hi Mark,

I hope you will find these photos of interest.

Thank you, Carol Griswold

---- Forwarded Message -----

From: rainyday <c_griz@yahoo.com>

To: "Carla@solsticeak.com" < Carla@solsticeak.com>; "Robin@solsticeak.com" < Robin@solsticeak.com>

Sent: Wednesday, April 27, 2016 9:08 PM **Subject:** Seward Airport high tide photos

Hi Carla and Robin,

Attached are some photos of the Seward Airport taken on March 10, 2016 near the high tide of day of 11.9'. As you know, this is not the highest tide, which can reach 13.7'.

I am very concerned that closing main Runway 13-31 will indeed allow floodwater to have better access to the existing floodplain as stated. This is not a reasonable or desirable direction. I fear that without maintaining the main runway as a levee, the floodwater will quickly overrun it and flow into the center portion of the airport. Then the river will start eroding the other runway 16-34 in the same way as it does now. That brings the impact of flood damage very close to the existing infrastructure of hangars, buildings, and Airport Road, resulting in an extremely expensive alternative.

I understand Dieckgraeff Road aka Levee Road, just across the highway from the airport, was designed and constructed in a flood plain. Similarly, raising the elevation, adding armor protection, and reconstructing Runway 13-31as a protective levee/runway is a superior alternative to closing Runway 13-31 and improving Runway 16-34.

This project must also consider the impending sea level rise in which the high tide shown in my photo may become the normal scenario for a moderate to low tide. The protective beach berm, reduced to an island, may be submerged more frequently, resulting in reduced protection from storm erosion.

The next protective barrier is the former road to the Naval Radio Station. It is submerged at high tides now. Close mowing along this former road reduces the ability of plants to maintain their roots, and thus their function to control erosion. The Airport Plan should include restrictions on mowing along this former road.

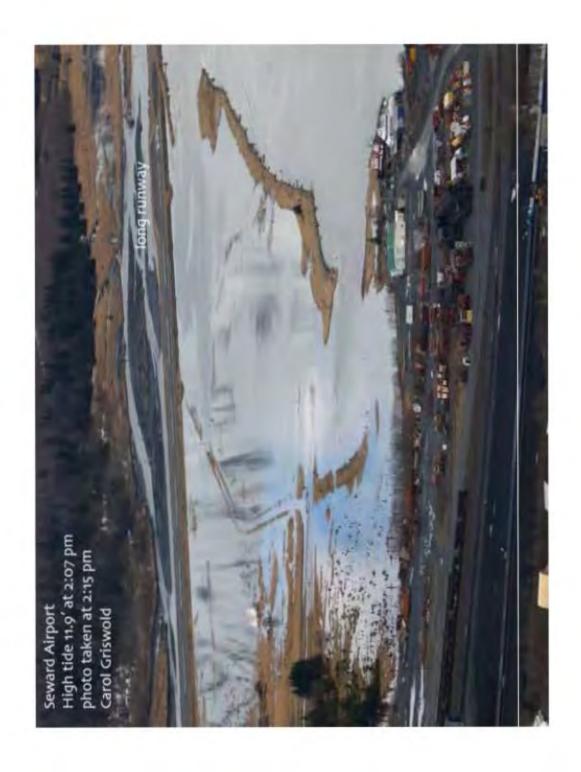
Note that the Alaska Railroad Master Plan proposes dredging for a boat barge basin between the airport and the AKRR property. This wetlands, with its layers of stable clay and compacted silt is very important for reducing flood impacts by controlling and filtering both flood waters and high tides. Removal of this stable wetlands, which includes a salmon stream complex, will bring the ocean permanently to the airport property line.

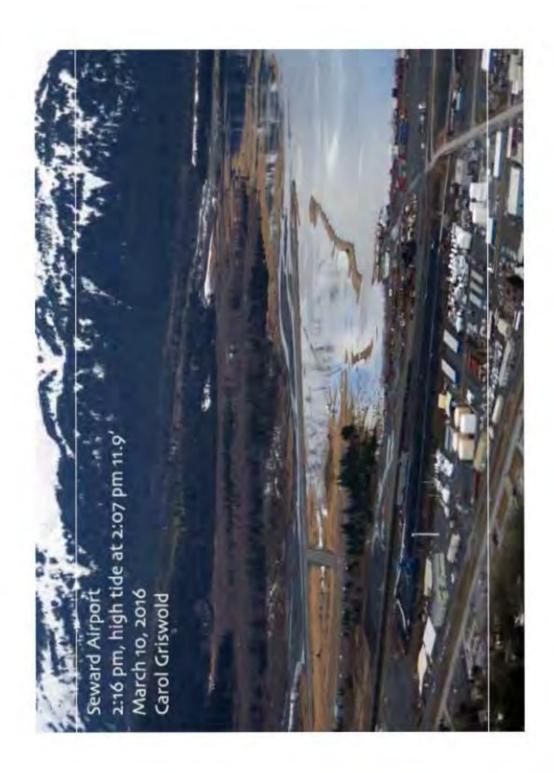
Extending Runway 13-31 will bring it extremely close to this property line, proposed boat barge basin, and ocean impacts. Consider the high costs of construction in wetlands, raising the elevation, and adding protective armoring for this alternative. Consider too, the negative impacts to wildlife and the environment.

Historic photos show the wild glacial Resurrection River created the entire alluvial fan from one side of the bay to the other. Artificial fill has extended development from the AKRR yard to the boat harbor, highway, and Lagoon. Allowing the river to have "better access to the existing floodplain" means utter destruction of all the infrastructure now in this floodplain.

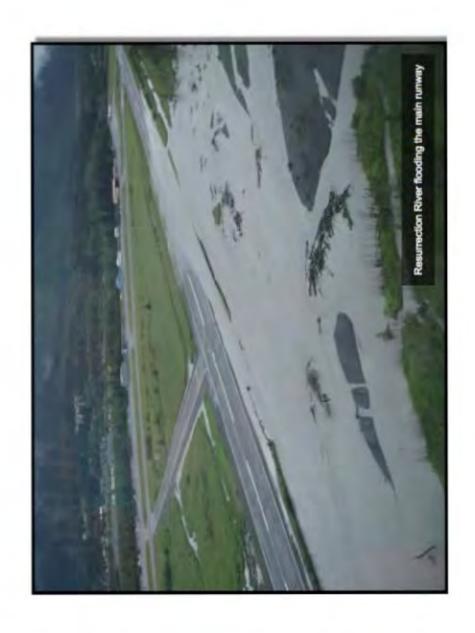
I believe the most cost-effective and viable alternative is to maintain and improve existing Runway 13-31 as a levee/runway, and maintain the rest of the current infrastructure.

Thank you for your consideration, Carol Griswold Seward, Alaska











Department of Transportation and Public Facilities

DESIGN & ENGINEERING SERVICES
Aviation Design

PO Box 196900 Anchorage, AK 99519-6900 Phone Number, 907 269 0617

Toll Free: 800 770 5263 TDD: 907 269 0473

TTY: 800 770 8973 Fax Number: 907 248 1573 Web Site: dof.state.ak,us

November 15, 2017

Carol Griswold P.O. Box 1342 Seward, Alaska 99664 Email: c_griz@yahoo.com

Dear Ms. Griswold:

Thank you for your thoughtful correspondence regarding the Seward Airport Improvements Project. We understand that you have concerns regarding our selected alternative (Alternative 2.2 - upgrading Runway 16/34 from an A-I facility to a B-II facility). The Department of Transportation and Public Facilities (DOT&PF) recognizes the gravity of this project, its potential impacts as well as opportunities for improved safety and services in Seward. In acknowledgement of these facts, we chose an alternative that is reasonable and responsibly meets the project needs.

Selecting an alternative that addresses the complexities at the airport (safety issues, the airport's aircraft demand/capacity, and environmental considerations) required considerable analysis. Extensive research was completed, including public input, to develop three alternatives for the project. These alternatives were evaluated based on widespread evaluation criteria such costs (construction, property acquisition, maintenance); ability to serve community needs (medivac, economic development); environmental impacts (wetlands, flooding and associated property impacts); and engineering considerations (airspace, wind, construction ease, reliability, long term risks). This analysis is summarized in an "Alternatives Memorandum", the "Seward Airport Improvements Scoping Report" and a "Position Paper", all available on the project website at

www.dot.state.ak.us/creg/sewardairport/documents.

We sought public, agency, and stakeholder input throughout the alternative selection process. A Stakeholder Working Group (SWG) was established which included the Alaska Railroad Corporation (ARRC); Alaska Wing Civil Air Patrol; City of Seward; Federal Aviation Administration; Kenai Peninsula Borough (KPB); Seward/Bear Creek Flood Service Area; and local pilots. Agency consultations were conducted with the Alaska Department of Environmental Conservation (ADEC); Alaska Department of Fish and Game (ADF&G); Alaska Department of Natural Resources (ADNR); ARRC; City of Seward; State Historic Preservation Officer; KPB; Kenai River Center; National Marine Fisheries Service (NMFS); U.S. Army Corps of Engineers (USACE); and U.S. Fish and Wildlife Service (USFWS).

[&]quot;Keep Alaska Moving through service and infrustructure."

Frequent flooding of airport facilities during precipitation events, including the recent flooding on September 6, 2017, continues to make this project a high priority. We appreciate your continual interest in the project. Next, please find responses to the specific points raised in your letter.

1. You are concerned with losing the levee effect of Runway 13-31 and resulting potential impacts to infrastructure. Further, you recommend that dredging is pursued as an option and ask why gravel extraction is not an option.

The main runway (Runway 13-31) will be left in place to provide some flood protection for the airport. The smaller runway will be raised two feet above the design flood event (the 100 year event). Armor protection will be installed along this runway to fortify it against flooding, in the event river waters reach this runway. To date, flood waters have reached but have not overtopped the existing small runway.

Your interest in pursuing dredging as an option for this project is consistent with other feedback that has been received for this project. We examined river dredging as an option, discussing this possibility in depth with the two Hydrologists on the project team. After considerable consideration it was concluded that excavations in a braided river, such as the Resurrection River, could exhibit "irregular and unpredictable morphologic development". Also there would be "no guarantee" that the excavations would remain stable or redirect flows. As a result, we decided that dredging was not a viable solution. (Please see the Resurrection River excavation memo for additional information at

www.dot.state.ak.us/creg/sewardairport/documents/Resurrection-River-Excavation Memo-final.pdf.)

2. You recommend that the long runway (Runway 13-31) be raised, fortified, and maintained as a levee given continued glacial melt and river erosion, and you feel that it is dangerous if it is abandoned.

As discussed previously, Runway 13-31 will be closed, but not removed and is expected to continue to function as a levee for some time into the future. The smaller runway (Runway 16-34) will be raised and armored, as noted above, to serve as a levee and barrier against potential future floods of adjacent private property.

A flood model was developed for the project which used the same design parameters for all three alternatives: raising the respective runway two feet (per an Executive Order) above the design flood (100 year flood). The modeling showed that the main runway, due to its location next to the river, produced significantly more flooding impacts to adjacent properties than the other two. Flood waters would increase up to 4 feet in some locations. Flood modeling results are presented in the "...Scoping Report".

3. You expressed concern that the extension of Runway 16-34 will impact wildlife and habitat. In particular, you expressed concern for impacts to: birds, especially migratory birds and Arctic Tern nesting habitat, and potential bird-aircraft collisions; salmon streams and specifically a stream west of the runway; and erosion from loss of wetlands and impacts to and potential loss of estuary protection.

The proximity of this project to important habitats and wildlife necessitated consultations with ADEC, ADNR, ADF&G, Kenai River Center, NMFS, and USFWS, who we looked to for wildlife expertise during the alternatives analysis.

• <u>Birds</u>: The USFWS, the federal agency with statutory authority that is responsible for enforcing the Migratory Bird Treaty Act, the Fish and Wildlife Improvement Act, and the Fish and Wildlife Act, did not express

concerns about bird impacts with regard to Alternative 2.2. There are risks for bird-aircraft collisions with all the airport alternatives that were analyzed and the safe operation of aircraft is our priority.

- Thank you for providing information on the birds observed in and near the airport area. We are
 currently using your data along with other bird sighting and habitat information at the airport to determine
 potential impacts to birds. If the analysis indicates there are significant impacts to bird habitat, as a result of
 project construction, we will provide mitigation to offset any impacts.
- <u>Fish</u>: ADF&G, the state agency responsible for enforcement of the Alaska Anadromous Fish Act and Fishway Act, stated during a recent agency scoping meeting that ADF&G prefers Alternative 2.2, because it avoids impacts to fish and fish habitat within the Resurrection River.
- Wetlands and estuaries: We are proceeding with the project by avoiding and minimizing impacts to
 wetlands as much as possible and will obtain a wetland permit from the USACE. The USACE has given us
 guidance that it selects the alternative with the least environmental impact. Given all the arguments presented
 in this letter as well as the "Position Paper", we believe that Alternative 2.2 is the alternative that satisfies the
 project's purpose and need while incurring the least amount of environmental impacts.
- 4. You state that Alternative 1.1 is the only alternative that supports small jets and that a longer runway is needed for medivac jets, Coast Guard C-130s, State Trooper helicopters, and business and private jet traffic.

We completed a detailed Aviation Activity & Facility Requirements Technical Memorandum that studied the existing and forecasted aircraft demand at the Seward Airport. This document shows that Alternative 2.2 will meet the current and future demand at the airport, including the most demanding aircraft (largest wingspan and longest required runway length) in steady use at the airport – the King Air B200, which is used for medical evacuations. Other aircraft that you mention do not use the airport often enough to justify the selection of Alternative 1.1. (Note that the Trooper helicopter does not require a runway to land.) Please refer to the "....Scoping Report" and the "Position Paper" on the website for additional information.

5. You expressed support for Alternative 1.1 and concern that Alternative 2.2 is a short-term, expensive choice.

Alternative 1.1 was discarded for numerous reasons including the fact that it significantly increases flooding to adjacent properties. Compensation for properties impacted by flooding would be costly and would outweigh other alternative expenses. In addition, construction activities associated with Alternative 1.1 (requiring placement of fill in the river) would disrupt existing fish habitat as well as impair navigability, a concern expressed by ADNR. Finally the impacts to medivac traffic, during construction, would be an issue for this alternative, as the small runway is not currently long enough to service these aircraft.

Alternative 2.2 was selected to move forward for several reasons. Among these reasons are the fact that the flood impacts are significantly less than Alternative 1.1 and that it avoids impacts to fish habitat in the river. In addition, Runway 16/34 has better wind coverage than Runway 13/31.

Please note that Alternative 3, (close Runway 13-31 and reconstruct Runway 16-34 to 4,000 feet), was developed based upon potential economic activity. Currently the aircraft demand at the airport does not warrant a runway longer than 3,300 feet. However, the new Airport Layout Plan will include this option as an Ultimate condition, and development of Alternative 2.2 will not preclude a future runway extension.

Additionally, the City of Seward is seeking investors to use private funds to extend this runway in the near future.

Again, additional information pertaining to all these answers can be found in the "....Scoping Report" and the "Position Paper" on the project's website. The "Position Paper" goes into more detail of why Alternative 2.2 was selected over Alternative 1.1.

Your continued thoughts and input have been appreciated. While Alternative 2.2 has been selected to move forward at this time, your comments have been documented. At any point in this process, please feel free to contact me directly. I can be reached at (907) 269-0617 or barbara.beaton@alaska.gov.

Sincerely,

Barbara J. Beaton, P.E.

Project Manager

cc: Shannon McCarthy, ADOT/PF, Public Involvement Representative

From: Jim Hunt <jhunt@cityofseward.net>
Sent: Wednesday, March 1, 2017 1:43 PM

To: Solstice AK

Subject: RE: Seward Airport Improvement Project Update, February 2017

Hi,

I noticed an incorrect population for Seward on your webpage. The number stated is for Seward only. There are about that number again living just out of the city limits.

Thanks,

Jim

Jim Hunt City Manager Seward, Alaska 907.224.4047



From: Solstice AK

Sent: Wednesday, June 7, 2017 3:38 PM

To: 'Jim Hunt'

Cc: Beaton, Barbara J (DOT); 'Royce Conlon'

Subject: RE: Seward Airport Improvement Project Update, February 2017

Hello Jim:

Per your email, we have updated the website language to read, "The airport serves the residents of Seward (pop. 2,754 [2012]) and nearby communities, including Moose Pass, Bear Creek, and Lowell Point."

See the updated website here: www.dot.state.ak.us/creg/sewardairport

Thank you.

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



From: Robin Reich

Sent: Monday, May 1, 2017 2:43 PM

To: Royce Conlon <RoyceConlon@pdceng.com>; Erica Betts <EricaBetts@pdceng.com>; 'Angela Smith'

<AngelaSmith@pdceng.com>

Cc: Olivia Cohn <olivia@solsticeak.com> **Subject:** Seward Airport Comment

Bob Linville called today (May 1, 2017) at 2:00 pm. He also left a message on Saturday. Here is a summary of his comments:

- He missed the meeting. I told him that the most recent meeting was over a year ago, and he said that there must be some confusion in Seward because a lot of people thought there was a recent meeting.
- He asked whether the alternatives and the preferred alternatives had changed since the last meeting. I told him that DOT&PF was still thinking that the preferred alternative remains 2.2 (crosswind runway shifting and lengthening) and closing the longer main runway.
- He said that he didn't agree with closing the main runway. He said that pilots need two runways in order have options, especially with the wind conditions and weather in Seward.
- He said that he didn't agree with closing/no improving the main runway just to avoid flooding impacts. He said that there is nothing left to be flooded in the area and that flooding damage was done years ago. He said that letting the river take over additional area didn't make sense.
- He said that he had made these comments previously and doesn't think that anyone is listening. He asked whether the FAA had seen the comments that the public had on the alternatives.
- He said that he has used the airport as a pilot and that his son now uses the airport. He is concerned local resident and lives in the area all year.

• He said that he would like to know when the next meeting would be held and expects to hear about it because he is on the mailing list. (I checked and he is on the list.)

Robin Reich, President Environmental Planner

Solstice Alaska Consulting, Inc. 2607 Fairbanks St. #B Anchorage, AK 99503 907.929.5960 Cell: 907.903.0597



www.solsticeak.com

From: Solstice AK

Sent: Wednesday, October 4, 2017 3:49 PM

To: Solstice AK

Subject: Seward Airport Update: Scoping Complete, Scoping Report Online, Alternative Selected

Thank you for your continued interest in the Seward Airport Improvement Project. You are receiving this email as a project update to inform you that project scoping is complete, the scoping report is now online, and a preferred build alternative has been selected.

The Department of Transportation and Public Facilities (DOT&PF) completed Phase I. Project Scoping. The Seward Airport Improvements Scoping Report, summarizing the project background (scope, project history, purpose and need, project team); existing conditions; aviation activity and forecast; facility requirements; project alternatives; and environmental conditions is available on the project website Document Library online at www.dot.state.ak.us/creg/sewardairport/documents.shtml. Alternative 2.2 was selected as the preferred build alternative for this project. A position paper summarizing selection of this alternative is available on the project website at www.dot.state.ak.us/creg/sewardairport/documents/Position-Paper.pdf.

DOT&PF has started Phase II. Environmental Documentation. PDC Inc. Engineers, in conjunction with DOT&PF, is preparing the Environmental Assessment for the project. Please check the project website Current Events page at www.dot.state.ak.us/creg/sewardairport/current events.shtml for updates.

For more information, contact Barbara Beaton, P.E., Project Manager, DOT&PF, at barbara.beaton@alaska.gov or telephone at 907-269-0617 or Robin Reich, Public Involvement, Solstice Alaska Consulting, Inc. at robin@solsticeak.com or 907-929-5960.

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Solstice AK

From: Brad Snowden <brad@seward.net>
Sent: Wednesday, October 4, 2017 4:10 PM

To: Solstice AK
Subject: Sewards Future
Attachments: Airport Runway.jpg

Don Young told me he would help if the City of Seward would simply send him a letter asking for it. Brad Snowden

From: Brad Snowden [mailto:brad@seward.net]
Sent: Saturday, October 14, 2017 9:20 PM

To: Beaton, Barbara J (DOT)

Cc: 'Brad Snowden'

Subject: Seward Airport and the future!

Hello Barbara,

I used Paint to copy and past this photo here.

PN&D did this overlay for me years ago.I asked them to put a 6,000 foot runway at "our" airport. Fine tuning is required of course but...

HERE IS SEWARDS FUTURE!!!

CRUISE SHIP PASSANGERS IN THE SUMMER AND ??? WINTER TOURISIM, CONVENTIONS, MEETING and IMAGINATION IN

THE WINTER



If you find interest in my findings and Alaska Airlines. Princess Cruises and Holland America's response to using Seward just ask!

Thank you

Brad S.

PS; Brad Snowden Hotel Seward

221 5th Avenue, Seward Alaska

Airport Expansion

November 1, 2004 Report to the people of Seward

On Friday, October 29, 2004, at 2:00 pm, a meeting was held at Alaska Airlines Corporate Office, Seattle, WA. In attendance at the meeting were:

Don Garvett, Vice President, Alaska Airlnes Charlie Ball, President Princess Tours David E Beagle, Vice President Holland America Brad Walker, Director Leisure Marketing, Alaska Airlines Brad Snowden, Owner/Manager Hotel Seward

Telephonic Attendees:

Vanta Shafer, Seward Mayor
Phil Shealy, Seward City Manager
Brad Garland, FAA/Airports
Mark Mayo, Transportation Planner, State Of Alaska
Todd VanHove, Area Planner, DOT, State Of Alaska Airport Design

Subject discussed was the potential of Alaska Airlines flying their jets and landing in Seward, for the purpose of transporting tour ship passangers.

- Don Garvett stated that Alaska Airlines would haul passengers out of Seward if there were an airport that could handle their jets.
- Chralie Ball and Dave Beagle would use that airport to haul their passengers if the cost was comparable to Anchorage or less.
- Brad Garland expressed support.
- Vanta Shafer felt that Seward would support this airport.
- Todd Vanhove stated that there would be some difficulties.
 - a) The physical characteristics of the airport.
 - b) Establishing the importance of the expansion to rise up on the State's list of airport projects.

In conclusion, I find that if Seward would like to see continued cruise ship dockings in Seward. And numerous possibilities that it would be in Seward's best interest to pursue this further.

Sincerely,

Brad Snowden

From: Solstice AK

Sent: Friday, November 10, 2017 9:36 AM

To: brad@seward.net
Cc: Beaton, Barbara J (DOT)

Subject: RE: Seward Airport and the future!

Dear Mr. Snowden:

Thank you for your comments regarding the Department of Transportation and Public Facilities (DOT&PF) Seward Airport Improvement Project on October 4 and October 14. You have been added to the project mailing list, and your comments have been recorded and passed along to the project team.

We understand that you support construction of a longer runway and appreciate your vision looking towards Seward's future. At this time, Alternative 2.2, upgrading Runway 16/34 from an A-I facility to a B-II facility, has been selected to move forward into the environmental document phase of the project. The Position Paper online at www.dot.state.ak.us/creg/sewardairport/documents/Position-Paper.pdf summarizes the selection of the design alternative.

With that said, please be aware that extensive research and interviews were conducted during the scoping process for this project, including options to extend the runway. Alternative 3, close Runway 13-31 and Reconstruct Runway 16-34 to a runway length of 4,000 feet, was developed based upon potential economic activity. Commercial airlines were contacted during the initial scoping process for this project, and interviews and research indicated that there is not currently sufficient demand for a longer runway.

Without sufficient demand, the Federal Aviation Administration, the federal agency funding the majority of the Seward Airport Improvements Project, indicated that a "build it, and they will come" scenario would not meet this project's needs. Without funding, this Alternative was dropped from further consideration. However, the new Airport Layout Plan will include this option, and development of Alternative 2.2 will not preclude a future runway extension. See the Seward Airport Improvements Scoping Report online at www.dot.state.ak.us/creg/sewardairport/documents.shtml for additional information about the scoping process and the research, interviews, and consultations that occurred.

While Alternative 2.2 has been selected to move forward at this time, your comments have been documented. Please respond if you would like additional information.

Thank you.

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



From: Brad Snowden <brad@seward.net>
Sent: Sunday, November 12, 2017 3:43 AM

To: Solstice AK

Subject: RE: Seward Airport and the future!

Having read the below I find myself remembering an Airport I built on an Island just a short time ago that you folks did that meets non of the criteria you listed. Perhaps you remember it? It was for a village that had a population of what? 89 people. It was built on Akun for Akutan.

Now, with that being said, and with the proper research your office, well funded I might add, would find what I found. In the years I have spent in researching the viability of such an airport for Seward. Some number of years ago, driven by an insatiable appetite to help, in this case, my town and my home. The help I speak of is Seward's economy. I have lived in Seward since 1964. I have seen our town as I have seen a number of towns and cities grow. This growth happens where there is the opportunity for economic development. This opportunity is what provides the jobs that allow us to feed both ourselves and our families. It allows us to provide a roof over our heads. It allows us to put clothes on both, our backs, and also our families. Quite frankly, without those opportunities one would have to ask, "Where would we be?" Imagine, if you will. Where would you and your department be? Where would the money come from? As we know, if it wasn't for those that had foresight to see, given the tremendous size of our state and the meager population, coupled with the high cost associated with the often remoteness of many communities that we Alaskans could not afford the cost of providing those essential ingredients that are needed. Among these ingrediants are a transportation link that is appropriate to facilitate meeting the highest and best use in order to take advantage of the many locations and their possibilities.

Seward has suffered, like so many communities in our state with low employment and high cost in the winter time. Through the years I have often heard and experienced (over 50 years now) these winters.

The possibilities are endless with the building of an Airport of the size I have forwarded to you.

I can and will at a later date, provide some of those possibilities. For now I simply want to respond to your letter with what I took as condescending although I doubt that there was any intent in that direction. My response is motivated more by my love for Seward and knowing the importance of our desperate need for a robust winter.

If one takes a look at the Air transportation needs in Seward it probably can be easily overlooked the incredibly large demand for larger jets to bring passengers that arrive and depart from Seward all Summer long. Because, in it's need to be answered the need does not become as apparent as it truly is.

Early on in it's infancy and remember, I was here, there were many "work around" that were done to help facilitate a "new" business to Alaska! That business was and is Cruise Ship.

While there was need for a dock large enough to dock these ships, the cost and bureaucratic hurdles were more difficult to overcome than to make do with what we could. So...rather than building a new dock, located in a more desirable location for the customer who, let us remember, what that industry is about. The work around solve was to use the freight dock in an industrial area. This is not the best location but it has served itself well. A conversion has been made of The warehouse in order to facilitate the needs of those passengers and services of those ships.

In order to get those passengers both in and out of town, couches were provided to transport these people to the nearest airport, Anchorage. This puts more pressure on an already over burdened highway with the seasonally natural high demand. All the ramifications of what that does is almost worthy of a full page addressing them but simply, it is not safe!

When they were asked in a meeting that was set up over 10 years ago, in Seattle, !. Princess "Would you use an airport that landed Alaska Airlines 737's the answer was yes!" 2. Holland America, "Would you use an Airport that landed Alaska Airlines 737's,? The answer was Yes!". 3. Alaska Airlines, "Would you fly in and carry those passengers if there was an airport large enough to land your planes and the answer was yes!".

Now... When the right answer is so obvious why is it that we need to do the old "political process of Politics as usual?" This is the right thing. In every direction I have looked through the years the answer has come back YES! Times have changed. That wich we did 20 years ago as a work around has com to "Now is the time to build for today".

As I continue to work on all the avenues that one can think of and build a consensuses of the INFLUENTIAL, can your office please take another look at Seward. You do not have to set up a meeting in Seattle like I did. You can simply pick up the phone and call Alaska Airlines CEO, Princess President, Charlie Ball and The President of Holland America. Thank you for your courteous response and opening the door to receive this response. I believe that if you give this the thought that I have you will reach the same conclusion I have. There is no other reasonable conclusion based on the criteria that I have provided.

Again, I thank you

Brad Snowden
Alaskan and Seward resident
PO Box 670
Seward, Alaska 99664
brad@seward.net
bradsnowdenalaska@gmail.com
907-310-7610

From: Solstice AK

Sent: Thursday, December 7, 2017 2:10 PM

To: Brad Snowden

Subject: RE: Seward Airport and the future!

Mr. Snowden:

Thank you for your further comments. They have been added to the project record and shared with the project team.

Thank you.

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



Email Received from Jerry Olive on October 5, 2017

From: <<u>iolive@gci.net</u>>

name	Jerry Olive
satisfied	add to list
comments	Please let me know when there will be public hearings on this project. Extending the short airstrip in Seward will permanently demolish one of the most beautiful estuaries in this area. You will displace thousands of migrating birds, including a mating and nesting area for Arctic terns! Please consider putting the \$3,000,000 into repair the existing long airstrip in Seward. Please! personally invite you to go with me on a trip around the small lakes and beach that this project will effect. I'm serious, I personally invite you to go with me on a guided walk in the area that is proposed to be destroyed. I wait for your acceptance of this invitation. Thank you! Jerry OliveSeward
zipcode	99664
comments1	
email	iolive@gci.net

From: Solstice AK

Sent: Thursday, December 7, 2017 1:30 PM

To: jolive@gci.net

Subject: RE: Seward Airport Improvements feedback

Hello Mr. Olive:

Thank you for your email regarding the Department of Transportation and Public Facilities (DOT&PF) Seward Airport Improvement Project and your invitation to walk the airport site. Your comments have been documented. We understand that you have environmental impact concerns regarding Alternative 2.2, upgrading Runway 16/34 from an A-I facility to a B-II facility, which has been selected to move forward into the environmental document phase of the project.

The DOT&PF recognizes the gravity of this project and its potential impacts and opportunities for improved safety and services in Seward. Recognizing the safety and service needs at hand, DOT&PF chose a Seward Airport Improvement Project alternative that is reasonable and responsibly meets the project needs. A summary of the design alternative selection is on the project website (see www.dot.state.ak.us/creg/sewardairport/documents/Position-Paper.pdf), which provides context regarding how Alternative 2.2 was selected. Responses to the specific points raised in your email are below.

The next public meeting will be scheduled once the draft Environmental Assessment is released, which will likely be summer of 2018.

The proximity of this project to important habitats and wildlife has necessitated consultations with regulatory agencies including the U.S. Fish and Wildlife Service (USFWS). DOT&PF believes that Alternative 2.2 is the alternative that satisfies the project's purpose and need while providing the least environmental impact. The USFWS, the federal agency with statutory authority that is responsible for enforcing the Migratory Bird Treaty Act and other environmental laws, did not express concerns about bird impacts with regard to Alternative 2.2. We are currently using bird species sightings, documentation, and habitat information to determine potential impacts to birds. If the analysis indicates there are considerable impacts to bird habitat as a result of project construction, we will provide mitigation to offset any impacts.

The extensive research completed to date has included many airport site visits and onsite field studies. While we appreciate your offer to tour the project area, we must decline at this time.

Thank you.

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



From: gci <jolive@gci.net>

Sent: Sunday, December 10, 2017 9:33 AM

To: Solstice AK

Subject: Re: Seward Airport Improvements feedback

I would like to know specifically what the U.S. Fish and Wildlife Service had to say concerning this project. Thank you. Can you also please provide specific names of people from this agency whom I may contact for they stand on this issue. Thanks

From: Solstice AK

Sent: Monday, February 12, 2018 4:21 PM

To: jolive@gci.net

Subject: RE: Seward Airport Improvements feedback

Thank you for the questions.

Following the January 24, 2017 Alaska Department of Transportation and Public Facilities agency scoping letter (that identified the project's purpose and need, described project alternatives, detailed site conditions, identified preliminary environmental research, and requested agency scoping comments), an agency scoping meeting was held on March 2, 2017. At this meeting, USFWS noted the need to identify active eagle nests in the environmental document and emphasized the importance of considering impacts of the project on nests. USFWS provided written scoping comments on March 23, 2017 that commented that the project is following the recommended time period for avoiding land disturbance and vegetative clearing for nesting migratory species and is coordinating with USFWS for bald eagle nests, thus USFWS had no further comment. The USFWS contact who attended the March 2, 2017 meeting and provided comment on March 23, 2017 is Leah Kenney, Biologist, (USFWS, Fisheries and Ecological Services, Anchorage Fish and Wildlife Conservation Office). Note that Doug Cooper, Branch Chief, (USFWS, Fisheries and Ecological Services, Anchorage Fish and Wildlife Conservation Office), was also invited to the meeting, expressed interest in the project, and received project information but was unable to attend the agency scoping meeting. No other comments were provided from USFWS other than those summarized from Ms. Kenney.

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



On Thursday, October 12, 2017, 2:56:08 PM AKDT, Boydston, Mark A (DOT) < mark.boydston@alaska.gov > wrote:
Thansay, Goods 12, 2011, 2.00.00 1 in 71.01, Doyadidi, Mark 7 (DOT) Ana Riboyadid Reducing and Micros.
Tasha,
I am working on the draft Environmental Assessment for the proposed Seward Airport Improvements project (project # 54857). In your June 2, 2016 email (attached) which you cc'd Robin Reich at Solstice (who forwarded it to me). You

mention an Arctic term nesting colony apparently on airport property. Do you have Lat/long coordinates for the nesting colony?

Do the tems tend to nest in the same area each year or is the nesting location spatially separated over seasons? The eBird has one lat/long for all observations so I cannot tell where the nesting colony might be.



Riferit Boydeton, Emilronamental Impact Analyst II

Alaska Dags, of Transportation and Public Facilities

Proliminary Design and Environmental Section P.O. Box 196800, Anchorago, Alaska 19519-6900

Phone 907.269.0524 Fee: 907.243.6927

From: Tasha DiMarzio [mailto:tjbluebird@yahoo.com]

Sent: Friday, October 13, 2017 5:32 PM

To: Boydston, Mark A (DOT) <mark.boydston@alaska.gov>

Cc: Robin Reich < robin@solsticeak.com>

Subject: Re: Seward Airport Improvements project /

Hi Mark,

Thank you for contacting me.

The Arctic Terns that nest on the beach rye dune on the south side of the pond nest in the same area every year. There have been two years that I know of, that there has been major disturbances to the colony and people thought that they may move to another location or re-nest; this colony does not do that.

They are easily disturbed and do not adapt to changes.

GPS coordinates are as follows:

Main Arctic Tern Colony Critical Habitat:

60 728.58 N 149 2513.72W

Sub-Colony 1 60 727.30 N 149 2443.58 W

Sub-Colony 2 60 727.57 N 149 2427.87 W

I have attached a map of the location of the main colony, there are also 2 areas that I am calling "sub-colonies" that small numbers of terns sporadically nest in but their nest are not in ideal habitat and seem to fail each year. The main colony area is very important as it is the only adequate habitat in the greater Seward/ Kenai Peninsula area for Arctic Terns.

I also read the 2008 Environmental Assessment Plan and in section 3.4.4 Wildlife Hazards, this chapter failed to address that this stream and pond area is a Pink and Chum salmon spawning area, Bears and River otters, coyotes fish in the ponds and creeks, and many species of birds nest in this area besides Arctic Terns.

Birds that have or currently nest in the airport pond area are: Northern Pintail, Gadwall, Mallard, American Wigeon, Green-winged Teal, Savanna Sparrow, Lapland Longspur, Semi-palmated Plovers, Least Sandpipers, Common Snipe, Greater Yellowlegs, warblers, Great Horned Owl, and Bald Eagle

Not only is this area and important habitat for wildlife but it is also a very important migration stop over for many species of birds from around the world of which their numbers are in decline.

Banded Dusky Canada Geese have been spotted here along with a Banded/Flagged Bar-Tailed Godwit from New Zealand and Flagged and Banded Western Sandpiper from Chile!

Many species of shorebirds utilize this area along with Sandhill Cranes this past spring there was a fallout (when weather conditions drastically change during migration forcing birds to be grounded) over 1100 Sandhill Cranes, Hudsonian Godwits, Bar-tailed Godwits, Cackling Geese, Greater white-fronted, Whimbrel, Blackbellied plovers, Snow Geese and any species of songbirds were seen at the pond area. If this land was not their these birds most likely would have perished as some of the birds remained grounded for up to seven days.

There is also a large family group of Trumpeter Swans that nest nearby and each year as soon as their cygnets can fly they move them to the airport ponds to feed and continue to grow.

It is also key to know that these birds can be a major hazard to aircraft. If a runway is built in the only suitable habitat in this migration corridor birds will have no where to land to refuel and will become large displace flying hazards.

On top of the wildlife concerns is the hydrology of the area. Winter and summer are very different in this area; flooding, extreme high tides, surf and ice build up push water past the ponds, overflowing the sloughs and southern field each winter. A run way that extends out into and past the pond would be destroyed in a matter of years. A through environmental assessment needs to be conducted in the each of the seasons especially the Spring and Winter.

I am surprised at how few public comments were submitted. I believe people have not been properly informed of this project and its implications. I would speculate that more recreational users visit the airport, ponds and beaches then pilots, and if the hunters, dog walkers, birders, beach combers ect new about this project ("Airport Improvements" vs Habitat loss and recreational area loss) you would have more input.

Its really is a special area to "Sewardites" and other Alaskans, it is the only remaining inter-tidal wetlands in Resurrection Bay.

If there is any other information I can give you I will be happy to help. Thank you for reading my response and taking the time to research this project.

Tasha

Stakeholder Working Group Meeting #4 Correspondence and Documentation

[This page intentionally left blank.]

Frame Robin Reich

Sent: Friday, September 15, 2017 10:23 AM

To: bca.alaska@gmail.com; mike.edelmann@faa.gov; terryc@akrr.com;

rlong@cityofseward.net; kubitzj@akrr.com; spresley@kpb.us;

sean.montgomery@alaska.gov; BearLakePilot@gmail.com; dennis.perry@alaska.gov;

hendricksonc@akrr.com

Cc: Olivia Cohn; barbara.beaton@alaska.gov; RoyceConion@pdceng.com;

joy.vaughn@alaska.gov; kevin.knotek@alaska.gov; Angela Smith; Erica Betts

Subject: October 4, 1:00 PM Seward Airport Improvements Projects Telcon

Good morning-

Thank you for responding to the Seward Airport Improvements Project Stakeholder Working Group (SWG) Doodle poll.

Please save the date for the Seward Airport Improvements Project SWG teleconference meeting that will take place on: Monday, October 2, 2017 at 1:00 p.m.

Conference Call Line: 800-315-6338

Access Code: 58571

The status of the Seward Airport Improvements Project, including alternative selection and future tasks, will be discussed. An agenda and meeting materials are forthcoming.

Thank you,

Robin Reich, President Environmental Planner

Solstice Alaska Consulting, Inc. 2607 Fairbanks St. #8 Anchorage, AK 99503 907.929.5960 Cell: 907.903.0597



www.solsticeak.com

From: Olivia Cohn

Sent: Friday, September 29, 2017 10:36 AM

To: bca.alaska@gmail.com; mike.edelmann@faa.gov; terryc@akrr.com;

rlong@cityofseward.net; kubitzj@akrr.com; spresley@kpb.us;

sean.montgomery@alaska.gov; BearLakePilot@gmail.com; dennis.perry@alaska.gov;

hendricksonc@akrr.com

Cc: barbara.beaton@alaska.gov; RoyceConlon@pdceng.com; joy.vaughn@alaska.gov;

kevin.knotek@alaska.gov; Angela Smith; Erica Betts; Robin Reich

Subject: Reminder: October 2, 1:00 PM Seward Airport Improvement Project Telcon

Attachments: SWGMtg_4_AgendaforOct2,2017.pdf; SWG Mtg 3_04-20-2016_MtgNotes_07262016.pdf

Good morning:

We look forward to the Seward Airport Improvement Project Stakeholder Working Group (SWG) teleconference meeting on Monday, October 2, 2017 at 1:00 p.m. At that time, call 800-315-6338, and use access code 58571.

Attached, please find a meeting agenda as well as April 2017 SWG meeting #3 notes.

In advance of this call, please take time to review the Seward Airport Improvement Scoping Report, which is now online here: http://www.dot.state.ak.us/creg/sewardairport/documents.shtml.

Prior to the meeting, you will also receive a copy of the Seward Airport Improvement Alternatives Position Paper.

Thank you.

MEMORANDUM

Date: October 2, 2017

To: Barbara Beaton, Project Manager

Department of Transportation and Public Facilities (DOT&PF)

From: Robin Reich and Olivia Cohn (Solstice Alaska Consulting, Inc) with input and

review from Angela Smith and Royce Conlon (PDC Engineers, Inc.)

Subject: Summary of 10/02/2017 Stakeholder Working Group Meeting #4 -

Seward Airport Improvement Project (#Z548570000)

This document provides a summary of the fourth Seward Airport Improvement Project Stakeholder Working Group (SWG) meeting held on October 2, 2017, which was held via teleconference. The SWG meeting began at 1:00 pm and ended at approximately 2:30 pm.

Materials distributed in advance of the meeting included the meeting agenda (Figure 1); Scoping Report; Alternatives Position Paper; and April 20, 2016 SWG Meeting #3 notes. These items were distributed via email (project website link and attachments) on September 29, 2017. Note: post-meeting follow-up information is provided in brackets throughout this document.

Introductions and Purpose

Robin Reich, Solstice Alaska Consulting, Inc (SolsticeAK), began the meeting with a welcome and introductions. Table 1 lists the meeting participants.

Table 1. Meeting Participants (via teleconference)

SWG Membership	Name
Alaska Railroad Corporation (ARRC)	Jim Kubitz, Brian Lindamood, Dwayne Atwood
Alaska Wing Civil Air Patrol	Brandon Anderson
City of Seward	Invited; [Ran Lang provided input through a post-mtg. telephone call (see attached telephone log)]
Federal Aviation Administration (FAA)	Mike Edelmann
Kenai Peninsula Borough Seward/Bear Creek Flood Service Area, Water Resource Manager	Stephanie Presley
Lease Holder, General Aviation Pilot, Community Member	Dennis Perry
Alaska Department of Transportation and Public Facilities (DOT&PF) Maintenance	Sean Montgomery
DOT&PF Project Management, Central Region Design and Engineering	Barbara Beaton, P.E., Project Manager, Joy Vaughn
DOT&PF, Peninsula District	Kevin Knotek
Consultant: PDC Engineers, Inc.	Royce Conlon, P.E., Consultant Team Project Manager, Angela Smith, P.E., Project Engineer
Consultant: SoisticeAK	Robin Reich, Olivia Cohn

Following introductions, Ms. Reich reminded participants that this was the fourth SWG meeting and articulated the meeting's purpose: to regroup on the process and review alternatives moving forward. Figure 1 presents the agenda, which documents the meeting's format.

Figure 1, SWG Meeting #4 Agenda and Overview



Meeting Agenda and Overview



- Introductions and Purpose of the Meeting (Robin Reich, Solstice Alaska Consulting) (1:00 – 1:10 pm)
- Recap. of the Project (Barbara Beaton, DOT Project Manager) (1:10 – 1:20 pm)
- Project Alternatives Position Paper (Barbara Beaton) (1:20 – 1:50 pm)
- Status of Project Activities and Next Steps (Royce Conlon, P.E., PDC Engineers) (1:50 – 2:10 pm)
- Adjourn (2:15 pm)

Pre-meeting packet: Alternatives Position Paper, SWG meeting #3 notes

Barbara Beaton, DOT&PF, reiterated the meeting welcome saying that she would provide a project recap., introduce the position paper, and that Royce Conlon, PDC Engineers, would summarize the project status and next steps.

Recap. of the Project

Ms. Beaton reviewed progress to date, noting that the planning process included the following.

 Reviewing alternatives from the 2008 Seward Airport Master Plan and Environmental Assessment [online at www.dot.state.ak.us/creg/sewardairport/documents.shtml].

- DOT&PF consultations with a hydrologist following continued flooding events.
- An aviation activity and forecast, which included extensive interviews.
- Refinement and carrying forward three alternatives that meet existing and future aircraft operations and were designed to meet Federal Aviation Administration (FAA) guidance.
 - o The three alternatives fit within the primary constraints of the geographic locations of the river, bay, railroad, and highway.
 - o FAA is providing approximately 94 percent (%) of the project funding, which impacts the need to follow FAA guidelines.
- Extensive research and interviews, that identified that the main runway (RW) was more than sufficient for meeting airport operations' needs.
- A flood forecast, which included determining how to raise the RW to meet design.
 - With a two-foot freeboard, flooding was modeled at three feet to look at impacts to surrounding properties.
- · Creation of a Public Involvement Plan.
 - Public and stakeholder insight was gathered through two public meetings and three
 SWG meetings. The input from these meetings is documented in the scoping report.

The planning process is documented in detail in the Scoping Report, which is now online [<www.dot.state.ak.us/creg/sewardairport/documents.shtml>]. To simplify documentation of the process for selecting the design alternative in a readable format, an alternatives position paper was also written, [which was made available online after the meeting <www.dot.state.ak.us/creg/sewardairport/documents/Position-Paper.pdf>]. This document summarizes the project and shows how feedback was acknowledged and considered.

Project Alternatives Position Paper

Ms. Beaton introduced the position paper. She highlighted the following points that are explained further in the position paper.

- The Resurrection River floodway continues to move, and the main channel is now adjacent to the main RW.
- · The river continues to flood and overtop the main RW.
- The main RW's safe weight changed, as determined from a thumping test, and it continues to decline in capacity.
- The preferred alternative design would satisfy all general aviation aircraft operations, including the B200 aircraft, which was used as the aircraft for developing design.
- The project could not justify enough demand for a long RW. The City expressed interest in the long RW; however, there are currently not more than 500 operations per year. More than 500 operations per year are needed to show need for the longer RW.
- During interviews, commercial operators said they needed increased demand, which is not likely, and a better approach to the airport to justify regular flights into Seward.
 - A non-circle public approach is not feasible with the existing terrain; a private approach could be possible but would require additional equipment in the airplane and additional equipment training.

- An alternatives analysis detailed the three alternatives: Alternative 1.1, reconstruct RW 13/31 (main RW) and raise it above the 100-year flood level; Alternative 2.2, upgrade RW 16/34 (crosswind RW) from an A-I facility to a B-II facility; and Alternative 3, close RW 13-31 and reconstruct RW 16-34.
 - Per the scoring criteria for this process, it was determined that Alternative 2.2 had more advantages and less disadvantages than the other alternatives.
 - o The longer RW was kept as the ultimate condition in the airport master plan.
- Impacts from flooding are a project concern.
 - Alternative 1.1 would require fill in the regulatory floodway that would significantly raise the base flood elevation (BFE) for a 100-year flood event up to four feet in some locations. Raising the BFE would: affect about 160 acres more than Alternative 2.2; require a FIRM (flood insurance rate map) revision; require undergoing the LOMR (letter of map revision) process; and increase flood insurance rates for those who would be impacted.
 - Alternative 2.2 does not have as many flood impacts. It is a better fit than Alternative 1.1 and would impact about 22 acres, much less than the area potentially impacted by Alternative 1.1.
- Environmental impacts are a project concern.
 - o Alternative 1.1 has impacts to the River's navigability and fish habitat.
 - Alaska Department of Fish & Game (ADF&G) had stated it prefers Alternative 2.2.
 - U.S. Army Corps of Engineers (USACE) must permit the least environmentallydamaging alternative and had stated preference for Alternative 2.2.
- Last winter, airport maintenance was difficult due to budget cuts.
 - Although most DOT&PF funding is federal; maintenance work is state-funded, and more budget cuts are expected.
 - o The main RW by the river could have more flooding than Alternative 2.2, which is not within flooding on the FIRM map. Alternative 2.2 would require less maintenance.
- The project studied wind coverage at the airport.
 - o The crosswind RW orientation wind coverage is preferred aside from occasional winter winds when the long RW is preferable.
 - FAA requires 95% wind coverage; Alternative 2.2 has more than sufficient wind coverage.
 - Tour operators were interviewed regarding wind. They primarily operate during summer. Of the two operators that operate during winter, one did not have winter wind issues, and the other sometimes has to wait out winter winds. Medivac providers said that they send an ambulance from Anchorage. Seward's hospital is available for emergencies.
- Runway Protection Zone (RPZ) issues are a safety concern.
 - For Alternative 1.1, the Alaska Railroad and Seward Highway are within the RPZ, creating a safety hazard.
 - o For Alternative 2.2, shifting the RW and RPZ removes this danger, and the Seward Highway and Railroad penetrate the far corner of the RPZ and is much safer.

 Under Alternative 2.2, the main RW would be available during construction work on the shorter RW; therefore, medivac service would remain available while the project is implemented.

Ms. Beaton summarized the position paper conclusion [online at www.dot.state.ak.us/creg/sewardairport/documents/Position-Paper.pdf] describing how significant research was completed resulting in the development of three alternatives, and ultimately resulting in the selection of Alternative 2.2 as the preferred alternative. An Environmental Assessment is now being prepared.

Ms. Beaton offered an opportunity for questions and indicated that follow-up questions and comments may be directed to her by telephone [907-269-0617] and email [barbara.beaton@alaska.gov]. Ms. Conlon offered the floor for questions before she summarized next steps.

SWG questions/comments

Glide slope intersection ARRC property: Jim Kubitz, ARRC asked whether the glide slope of Alternative 2.2 intersects ARRC property. Mr. Kubitz further noted that ARRC may complete a project that may utilize ARRC property to keep river sedimentation out of the property.

 Ms. Conlon noted that there should be no public gathering in this area and said that Brian Lindamood was given the airspace alternatives that detail contours. Ms. Beaton noted that these documents are not final but are current and are very close to final.

Long RW potential: Dennis Perry asked if the RW ends up at 4,000 ft, would the railroad projects be within the RPZ, and if so, would that prevent the extension?

Ms. Beaton said it would not really prevent extension because of the airport contours.

Taxiway length: Mr. Perry further asked if, under Alternative 2.2, the taxiway would extend to the end of the RW, and Ms. Conlon responded that no, it would be in the first one-third of the RW and not at the end.

 Mr. Perry expressed concerned with RW back-taxiing safety; Ms. Conlon noted that this is not a concern because of Seward airport traffic. She commented that a parallel taxiway usually makes sense for airports with more than 20,000 operations.

South/Bear Lake access: Mr. Perry commented that he flies out of Bear Lake in the summer and winters his float plane at his hangar at the Seward Airport. When he has to launch his float plane at the south end of the airport, he must back downward to avoid water. He asked if this area will be impacted and whether float plane access will be maintained.

 Ms. Beaton answered that there will be an access road to tidelands, but there would be a new design. Mr. Perry noted that he is concerned with the length.

Corporate pilot operations: Mr. Perry commented that the project does not see the traffic from corporate pilots because corporate pilots must plan based on the existing approach and access.

He is working on an approach with AOPA and wants a future opportunity to increase the RW length to 4,000 ft.

- Ms. Beaton said that the intention is to maintain an opportunity to increase the RW length to 4,000 ft when demand increases to meet FAA requirements, and it will be shown in the updated airport layout plan.
- Mr. Perry further commented that, based on a previous business example, airplanes can
 depart with average precision instruments. Getting into Seward requires more precision.
 When pilots were stationed in Seward and flights originated there, they were able to fly
 more often in the morning. When pilots were pulled out of Seward, ridership was
 significant, but when it changed, the utilization and demand decreased. Ms. Beaton
 clarified that the project must plan by the lack of demand information that is available.

Next Steps

Ms. Conlon noted that the next steps will include the following.

- Alternative 2.2 will be carried forward as the preferred build alternative. An impacts
 analysis will be conducted for Alternative 2.2 versus a No Build Alternative, which would
 not meet the project's purpose and need. Natural and environmental impacts, including
 impacts to wetlands, will be assessed.
- To expedite collecting public input, the environmental document will be released in sections to the SWG. The first chapters will be available in approximately one month. The project team aims to complete the environmental document by August of 2018.
- The project will undergo the permitting process concurrently with design development.
- The project will require a field survey and geotechnical work. The aerial survey was previously completed.
- The project is working through erosion protection.
- The project will undergo a Right-of-Way acquisition and mapping process, which will take approximately eight months and could impact the project schedule.
- The project is estimated to go to bid in April 2019. The property acquisition process could change this schedule. During this process, the project team will work with FAA to redesign the circling approach and move visual approach slope indicators (VASIs) from the second RW to the new RW.
- A public meeting allowing comments from the SWG and public will be conducted once the environmental document draft is available.
- An environmental document is needed before property may be acquired.
- The airport access road to the highway may change as part of the railroad permit effort.

The floor was opened for additional questions and comments, and none were given. It was noted that community members expressed interest in pursuing the long RW, and the process to select the best preferred alternative for the airport has been long and detailed.

Adjourn

The meeting concluded at approximately 2:30 p.m.

TELEPHONE CONVERSATION LOG

Date: October 3, 2017

Project: Seward Airport Improvement Project

Subject: Follow-Up to Stakeholder Working Group October 2, 2017 Meeting

Comments/Questions After Not Being Available to Attend Meeting

Call From: Ron Long, City of Seward

Call To: Barbara Beaton, Department of Transportation and Public Facilities (DOT&PF)

Conversation Notes:

DOT&PF spoke with Mr. Long, who wanted to let DOT&PF know that the City of Seward is still interested in the 4,000-foot (ft) runway option.

Mr. Long is looking at generating funding for the option. DOT&PF relayed that the project would need to have this information (regarding availability of funding) very soon. DOT&PF discussed reaching the 4,000-ft option at some point in the future.

Ms. Beaton explained that the project would look at obtaining tidelands interest to accommodate the runway extension in the future and that the new airport layout plan (ALP) would show the 4,000-ft runway as an ultimate condition.

Ms. Beaton also explained that DOT&PF had discussed the issue with the Federal Emergency Management Agency as it would result in a Conditional Letter of Map Revision/Letter of Map Revision action to adjust the location of the VE Zone. Mr. Long confirmed he understood and wanted to verify.

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Agency Scoping Comments and Correspondence

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From: Boydston, Mark A (DOT)

Sent: Tuesday, January 24, 2017 11:00 AM

To: ak_fisheries@fws.gov; erin_knoll@fws.gov; Moore, Eric A (DNR); DNR, Parks OHA Review Compliance (DNR sponsored); Ashton, William S (DEC); Lidren, Grant M (DEC); Heil, Cynthia L (DEC); Litchfield, Virginia P (DFG); Smith, Jimmy C (CED); Lidren, Grant M (DEC); Davis, Tammy J (DFG); Selinger, Jeff S (DFG); Kubitzj@akrr.com; Brian Lindamood; Hcd.Anchorage@noaa.gov; jeanne.hanson@noaa.gov; dglenz@cityofseward.net; cepoa-rd-kenai@usace.army.mil; MBest@kpb.us; bharris@kpb.us; ncarver@kpb.us; knoyes@kpb.us; tdearlove@kpb.us

Cc: Elliott, Brian A (DOT); Beaton, Barbara J (DOT); ak-airport-env@faa.gov

Subject: Seward Airport Improvements / Agency scoping letter

To All:

The Alaska Department of Transportation and Public Facilities Central Region is requesting comments on the proposed Seward Airport Improvements project. See the attached Agency Scoping letter, Preliminary Environmental Research and Figures 1 through 8. Comments are due no later than February 24, 2017.



Mark Boydston, Environmental Impact Analyst II Alaska Dept. of Transportation and Public Facilities Preliminary Design and Environmental Section P.O. Box 196900, Anchorage, Alaska 99519-6900 Phone 907.269.0524 Fax 907.243.6927



Department of Transportation and Public Facilities

DESIGN & ENGINEERING SERVICES PRELIMINARY DESIGN & ENVIRONMENTAL

PO Box 196900 Anchorage, Alaska 99519-6900

> Main: 907.269.0542 Toll Free: 800.770.5263 TDD: 907.269.0473

January 24, 2017

Project: Seward Airport Improvements Project No.: TBD / Z548570000

Re: Request for scoping comments

The Alaska Department of Transportation and Public Facilities (DOT&PF), in cooperation with the Federal Aviation Administration (FAA), is soliciting comments and information on a proposed project which seeks to upgrade airport facilities as well as protect the airport from further damage caused by recurrent flooding. The proposed project is located within Section(s) 34-35, T1N, R1W and Sections 2-3, T1S., R1W, on USGS Quad Map Seward A-7, Seward Meridian; Latitude 60.1307°N, Longitude -149.4188°W, in Seward, Alaska (Figure 1).

Purpose and Need

The Seward Airport is located within the floodplain of the Resurrection River; portions of the airport are within the defined Floodway. The main runway (R/W 13/31) is located adjacent to the river and as a result, has been overtopped 18 times in the last 5 years (2011-2016), resulting in damage to all the airport facilities. Erosion from the river and regular flood damage require a continued maintenance effort to keep the airport usable, especially R/W 13/31. The purpose of the Seward Airport Improvements Project is to provide a reliable working airport that satisfies current FAA design standards for an Aircraft Design Group (ADG) II facility and that also conforms to the state's requirements for a Community Class Airport. These improvements should meet the near term aviation demands as well as plan for future demand. Specifically the airport needs to:

- Maintain a minimum R/W length of 3,300 feet, to accommodate current and near term aircraft including medevac operations.
- Meet the R/W width and taxiway (T/W) dimensional standards of ADG II.
- Construct flood protection to prevent erosion damage from the 100-year flood.
- Provide a minimum of 95% wind coverage for the ADG II aircraft; cross-winds.
- Construct a R/W with sufficient bearing capacity to allow for occasional operations by larger aircraft such as Beech 1900, Dash 8, and small charter type Business jets.
- Provide reliable airport lighting for night operations.
- Mitigate approach obstructions and incompatible RPZ uses to the extent practicable. Accommodate the need for aircraft owners to change out from floats to wheels
- Ensure the airport has sufficient service roads.

Alternatives under Evaluation

Airport Construction

Two build alternatives are under consideration. Both Alternative 1.1 and Alternative 2.2 satisfy the purpose and need outlined above.

Alternative 1.1 would include the following (see Figure 2):

- Reconstruct and raise R/W 13/31 above the 100-year flood level (up to 4 feet).
- Install riprap to protect the embankment. Adjust elevations of R/W 16/34 and T/Ws B and C to match the new R/W 13/31 elevation.
- Eliminate or reconfigure T/Ws A, D, and E to comply with new FAA guidance.

Alternative 2.2 would include the following (see Figure 3):

- Close R/W 13/31 and discontinue maintenance.
- Reconstruct and raise R/W 16/34 above the 100-year flood level (less than 1 foot). This includes shifting the R/W east to provide the required R/W and T/W separation.
- Install riprap to protect the embankment from flooding.
- Relocate T/W B and adjust T/W F to match new R/W elevation.
- Eliminate or reconfigure T/Ws A, C, D and E to comply with the new FAA guidance.

Both Alternatives would include the following:

- Repave other airport surfaces as needed.
- Install new airfield lighting and an 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

Material Site

No material sites are included for evaluation as part of this project. There are commercial material sources available near the project area.

Existing Site Conditions or Facilities

The State of Alaska owns and operates the Seward Airport, which includes a paved main R/W (R/W 13/31), a paved secondary R/W (R/W 16/34), multiple T/Ws, and two aprons. R/W 13/31 is 4,533ft x75ft and R/W 16/34 is 2,289ft x 75ft. The Seward Airport primarily serves the City of Seward and residents in the area between Seward and Moose Pass. Local residents use the airport for travel to Anchorage and Prince William Sound. Tour operators also use the airport as a base for sightseeing tours of Kenai Fjords National Park via airplane and helicopter. There is no scheduled commercial service. The number of operations at the airport is much higher in the summer than in the winter. Although Seward is connected to other communities by rail, road and the marine highway, the airport provides essential access during medical emergency or disaster situations when other access (single rail line and single highway) may be vulnerable.

Most of the Seward Airport is located within the floodplain of the Resurrection River Delta. A significant portion of R/W 13/31 lies within the floodway. The frequency with which R/W 13/31 has been overtopped by the Resurrection River has increased significantly in recent years. These instances were limited initially to the fall, but they are now occurring in the summer as well (June to November). Recent changes in channel morphology have rendered the existing riprap along the eastern side of the R/W inadequate. Without raising this R/W and installing additional erosion protection, overtopping of the R/W will continue and DOT&PF will keep pouring maintenance funds into the airport.

Recent testing of the main R/W embankment shows an insufficient bearing capacity to support large aircraft. Frequent flooding is thought to have contributed to a weakened embankment under the pavement. As a result, use of the R/W has been restricted to small aircraft with a weight of 12,500 lbs or less.

Preliminary Environmental Research

The environmental impacts of the two alternatives are not clearly established at this time so an Environmental Assessment (EA) will be prepared. An EA was completed in 2008 for improvements outlined in the Seward Airport Master Plan. A Finding of No Significant Impacts was issued on July 1, 2008. Since then various factors have delayed long term improvements to the Seward Airport. Due to the lapse of time, increases in the flooding frequency, as well as revisions to environmental regulations and proposed actions, DOT&PF in coordination with the FAA, plan to prepare a new focused EA that will cover changes to the proposed Airport improvements and current environmental conditions in Seward. DOT&PF conducted preliminary research using the most current available data to identify environmental resources within the proposed project vicinity (attached). To ensure that all factors are considered in developing the proposed project, please provide your written comments, recommendations, and the additional requested information to our office no later than February 24, 2017.

If you have any questions on the environmental effects, please contact Mark Boydston, Environmental Impact Analyst, at (907) 269-0524, or via email at mark.boydston@alaska.gov. Questions concerning the engineering aspects of the proposed project can be directed to Barbara Beaton, P.E., Project Manager, at (907) 269-0617 or via email at barbara.beaton@alaska.gov.

Sincerely,

Brian Elliott

Regional Environmental Manager

Attachments:

Figure 1 Location and Vicinity Map

Figure 2 Alternative 1.1 Plan View

Figure 3 Alternative 2.2 Plan View

Figure 4 Existing Conditions -100 year Flood Map

Figure 5 Alternative 1.1 - 100 year Flood Map

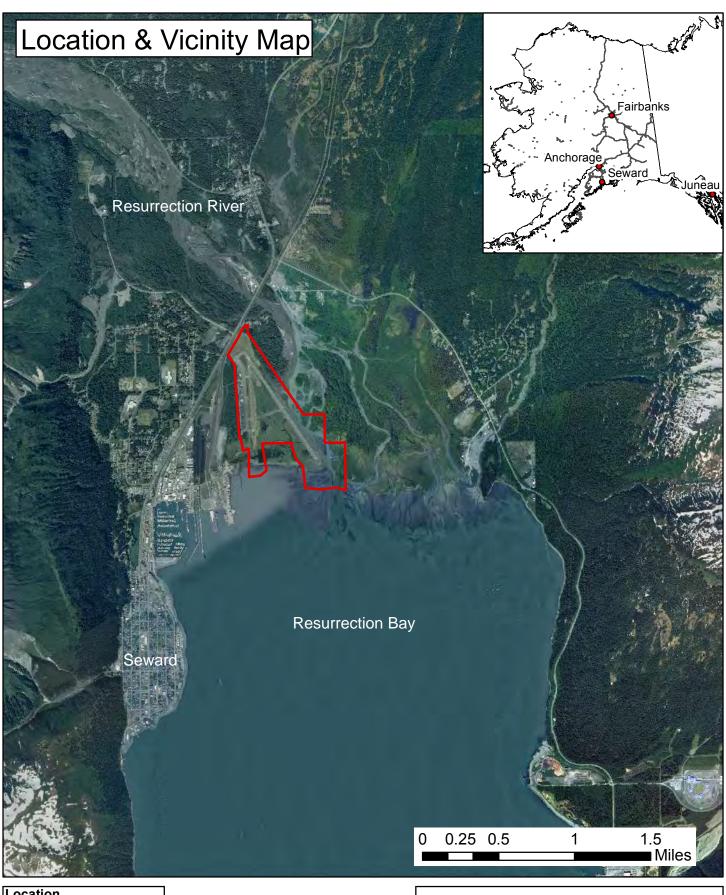
Figure 6 Alternative 2.2 - 100 year Flood Map

Figure 7 Alternative 1.1 - 2016 updated wetlands and imagery

Figure 8 Alternative 2.2 - 2016 updated wetlands and imagery

Preliminary Environmental Research

cc: Barbara Beaton, Project Manager, DOT&PF Aviation Design Leslie Grey, Environmental Program Manager, FAA Alaskan Region, Airports Division



Location

Section: 34, 35 - 2, 3 Township: 1N - 1S Range: 1W

Meridian: Seward

USGS Quad: Seward A-7



State of Alaska Department of Transportation and Public Facilities Central Region

Seward Airport Improvements

12/12/16 Date: Figure:

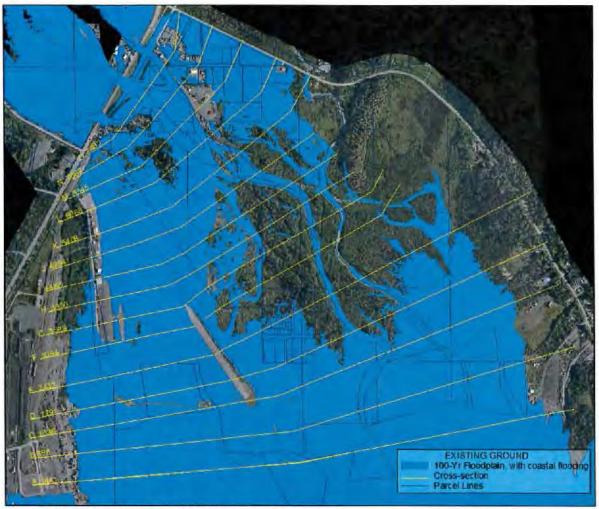


Figure 14. 100-year flood map for Existing Conditions.

EG-Figure \$\frac{4}{4}\$ shows that the 100-year flood will inundate most of the Seward Airport, including the upper half of Runway 13/31 and most of Runway 16/34. The private parcels in the middle of the Resurrection River floodplain are almost completely inundated as well, but that inundation is primarily due to the effects of coastal flooding from the 1-percent-annual chance tide event, which govern up to Cross-section E on the Resurrection River.

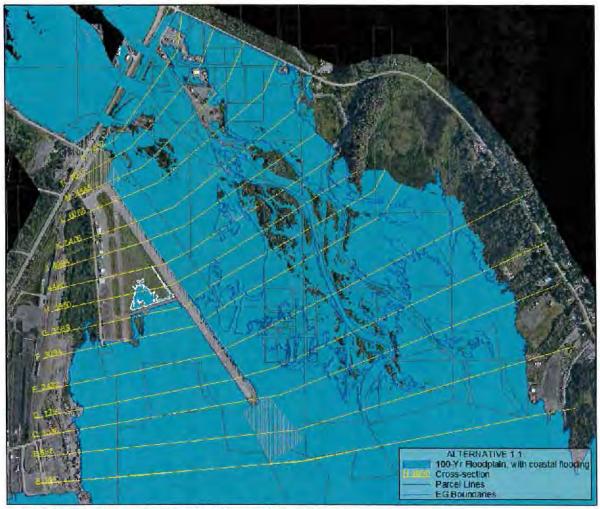


Figure 45. 100-year flood map for Alternative 1.1.

Alt 1.1-This design alternative raises the elevation of Runway 13/31 above the 100-year flood with a 2-ft freeboard. Both runways remain above the base flood elevation. As a result, the water surface elevations across the floodplain east of the runway are significantly higher than those of the existing conditions model. Water surface elevation increases of greater than 1 foot occur from Cross-section D to Cross-section J. The maximum water surface elevation increase is 4.04 feet, and occurs at Cross-section F. The private parcels in the middle of the Resurrection River floodplain are completely inundated. At some area of the 100-year floodplain between the Seward Highway and Resurrection Bay, the eastern limit has expanded. Compare the dark blue lines in Figure 15, which represent the 100-year floodplain boundary for the existing conditions model, to the cyan-colored 100-year floodplain of the Alt 1.1 model.

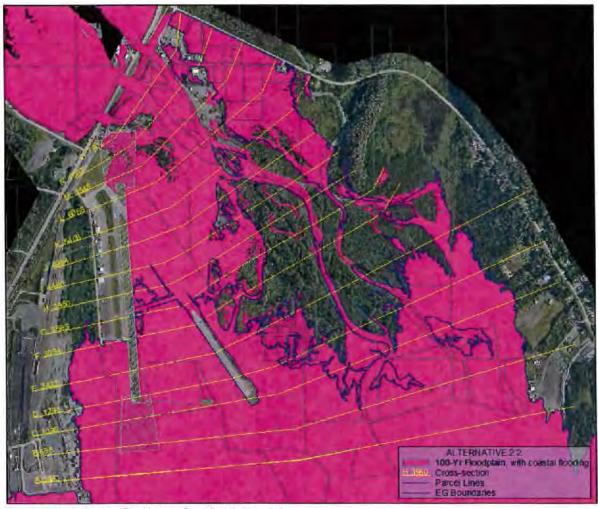


Figure 46. 100-year flood map for Alternative 2.2.

Alt 2.2-This design alternative reconstructs Runway 16/34 and raises the elevation with a 2-ft freeboard above the 100-year flood. Though Runway 13/31 is abandoned for active aircraft use, it is armored to prevent embankment erosion and channel migration.

Water surface elevation increases of less than 1 foot occur from Cross-section F to Cross-section M. The maximum water surface elevation increase is 0.78 feet, and occurs at Cross-section F. The private parcels in the middle of the Resurrection River floodplain are partially inundated. At some area of the 100-year floodplain between the Seward Highway and Resurrection Bay, the eastern limit has slightly expanded. Compare the dark blue lines in Figure 16, which represent the 100-year floodplain boundary for the existing conditions model, to the magenta-colored 100-year floodplain of the Alt 2.2 model.

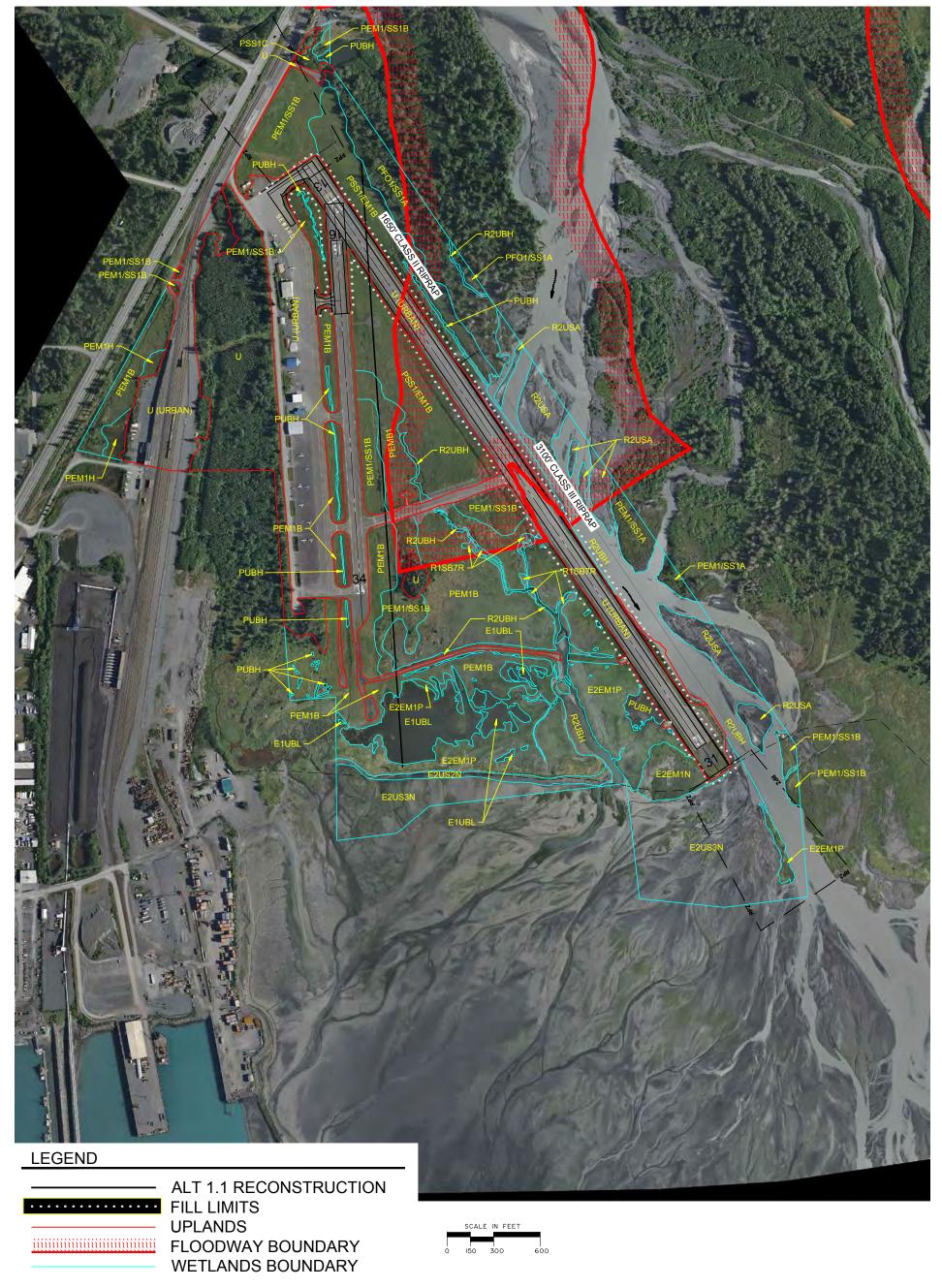


Figure 7

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



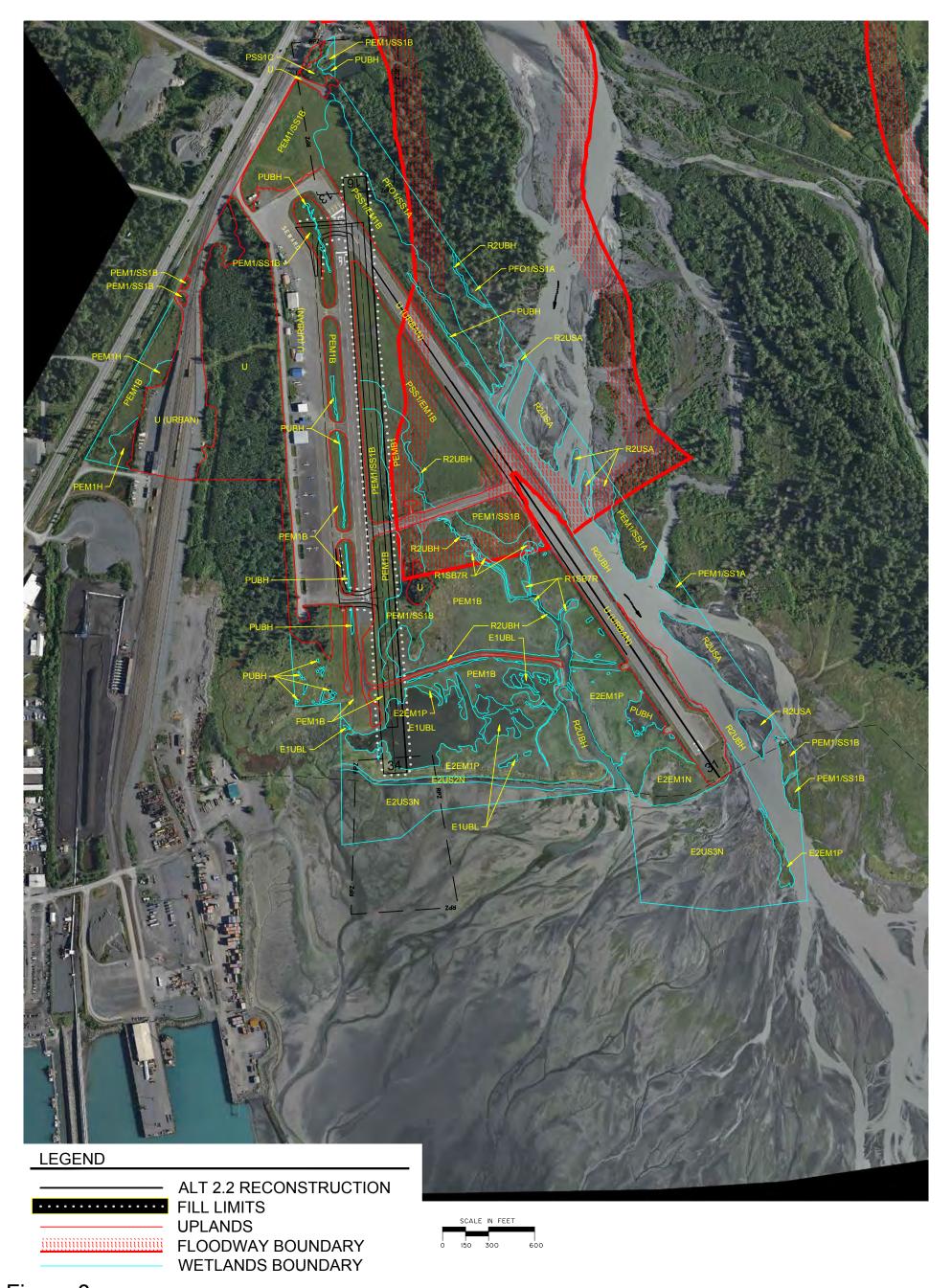


Figure 8

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



Preliminary Environmental Research

Air Quality

A review of the U.S. Environmental Protection Agency's List of Nonattainment Areas for All Criteria Pollutants and of the Alaska Department of Environmental Conservation (ADEC) Division of Air Quality's Non-Point Mobile Source Program website on December 15, 2016 indicated that the project area does not fall within an air quality nonattainment or maintenance area. The proposed project is not likely to result in any permanent air quality impacts, as all disturbed areas will be permanently stabilized after project completion and DOT&PF does not anticipate airport operations would increase significantly after the proposed project is constructed.

Anadromous Fish Streams and Essential Fish Habitat

A review of the Alaska Department of Fish and Game (ADF&G) Atlas to the Catalog of Waters Important to the Spawning, Rearing or Migration of Anadromous Fishes and the National Marine Fisheries Service (NMFS) Essential Fish Habitat (EFH) Mapper on December 15, 2016 found that the following waterbodies near the Seward Airport project contain anadromous fish and EFH (Table 1).

Table 1 – Anadromous Fish Streams in Project Area

Stream Name	AWC Code	Location	Anadromous Species and Use
Airport Creek	231-30-10080-2003	East side of the airport and adjacent to Runway 13/31	Spawning habitat for pink salmon
Unnamed anadromous fish stream	231-30-10075	Southern end of the airport between Runway 16/34 and Runway 13/31	Spawning habitat for pink salmon
Unnamed anadromous fish stream	231-30-10080-2017	East of the airport and Runway 13/31	Rearing habitat for coho salmon Spawning and rearing habitat for sockeye salmon
Resurrection River	231-30-10080	East of the airport	Spawning habitat for chum salmon Spawning and rearing habitat for Coho salmon Spawning habitat for pink salmon Spawning habitat for eulachon Chinook and sockeye salmon present
Resurrection Bay	N/A	South of the airport	Flathead sole present Pacific cod present Walleye pollock present All 5 species of Pacific salmon present

Alternative 1.1 is anticipated to affect the Resurrection River but not any of the other streams listed in Table 1. This Alternative may place fill below ordinary high water (OHW) of Resurrection River. Temporary adverse impacts from construction would occur, such as

increased turbidity and sedimentation. DOT&PF will coordinate with and obtain appropriate authorization from the U.S. Army Corps of Engineers (USACE), NMFS, and ADF&G prior to work that may involve anadromous or resident fish streams. Alternative 2.2 is not anticipated to impact any of the fish streams listed in Table 1.

Construction

Air quality degradation during construction may result from equipment exhaust and disturbed soil particles that become airborne. These impacts would be mitigated through the use of Best Management Practices (BMP) such as watering to minimize dust and routine equipment maintenance.

Water quality degradation during construction may result from sedimentation of storm water runoff. Alternative 1.1 would require work in the Resurrection River to provide increased armoring of the riverbank and to provide appropriate embankment for the increased runway height. This may result in temporarily increased turbidity. These impacts would be mitigated by using appropriate BMPs and implementing a Storm Water Pollution Prevention Plan in accordance with the Alaska Pollutant Discharge Elimination System (APDES) Construction General Permit (CGP). There is no other pollutant input anticipated during construction.

Temporary work areas or vegetated buffers may be located in wetlands if other upland areas are not available. Any such impacts would be included as part of the USACE's Section 404 wetland permitting process.

Estimated Ground Disturbance and Clearing Activities

Alternative 1.1 would disturb approximately 7.5 acres of ground and Alternative 2.2 would disturb approximately 15 acres. Ground disturbing activities would include grading, ditching, pavement removal, utility relocation, embankment construction, installation of armor protection and vegetative clearing within the airport property.

Flood Plain and Regulatory Floodway

A review of the Federal Emergency Management Agency (FEMA) online Flood Insurance Rate Maps (FIRM) on December 16, 2016, indicated that the proposed project area falls within the Regulatory Floodway, 1% Annual Change of Flood Hazard, and 0.2% Annual Chance of Flood Hazard Flood Hazard Zones (FEMA 2016, defined within FEMA flood maps 02122C4543D and 02122C5006D, effective September 27, 2013 (FEMA 2013).

DOT&PF completed a flood study for the proposed project and is available for agency review. Alternative 1.1 would require placement of fill within the regulatory floodway as well as the floodplain (see Figure 2) from raising the runway. Increases to the base flood elevation (BFE) by as much as 4 feet would occur in some areas. This encroachment and subsequent rise in the base flood elevation would result in flood waters backing up onto private properties along the Resurrection River.

Thus the selection of Alternative 1.1 would require a Letter of Map Revision (LOMR) to modify the effective FIRM and Floodway map.

Fill for Alternative 2.2 would fall within the floodplain but outside the regulatory floodway (See figure 3). Alternative 2.2 would produce a BFE increase of less than 1 foot. As a result, the FIRM and Floodway will not need to be modified for this alternative.

Hazardous Waste

A review of the ADEC Contaminated Sites Mapper on December 16, 2015 showed 1 active contaminated site and 4 cleaned up sites located near the project area (Table 2).

Table 2 - Contaminated Sites In and Adjacent to Project Area

Site Name	File Number	Contamination Type	Approximate Location	Activity Status
Seward Military Resort	2102.26.069	Contaminated soil and groundwater at the site from a broken underground storage tank supply line	1,700 feet west of Airport Road	Active
ARRC Seward Rail Yard	2332.38.002	diesel range organic contamination from leaky heating oil underground storage tank	880 feet west from the airport and 1,166 feet west of Runway 16/34	Cleanup Complete - Institutional Controls
ARRC Henderlong Building Seward	2332.38.033	benzene and toluene were found in soil	600 feet southwest of the airport and 1,265 feet from Runway 16/34	Cleanup Complete
Harbor Air Service	2332.38.005	Soil contamination from abandoned 55-gallon drums	270 feet west of Runway 16/34	Cleanup Complete
Seward, City of-Sewer Lift Station #4	2332.26.014	diesel range organic contamination from leaky underground storage tank	2,000 feet northwest of Airport Road	Cleanup Complete

Since the only active site is located off airport land and away from the proposed improvements, DOT&PF anticipates no impacts to contaminated sites are or that contaminated soils would be encountered during construction. Additional assessment of individual private properties may be needed prior to property acquisitions.

Historic Properties, Archeological, and Cultural Resources

Based on a Cultural Resources Survey conducted in 2004 by Northern Land Use Research for the Seward Airport Master Plan effort, and presented in the 2008 Finding of No Significant Impact, the following sites are in the vicinity of the Airport property.

• Site No. SEW-148, associated with the Seward Moose Pass Trail (previously Iditarod National Historic Trail), runs discontinuously adjacent to the railroad; portions of this trail fell into disuse after the completion of the Alaska Railroad in 1923.

- Site No. SEW-007 is associated with the Russian Trail dating back from the Russian Period; the exact location of this site has not been identified. Remnants of an old road at the southern end of the project area could relate to Site No. SEW 007.
- Site No. SEW-835, the Naval Radio Station, is located on the eastern bank of Resurrection River, east of the project area.

DOT&PF and FAA will proceed in accordance with Section 106 of the National Historic Preservation Act.

Invasive Species

A search of the University of Alaska Anchorage Exotic Plants Information Clearinghouse (EPIC) Invasive Plants Mapper, conducted on December 15, 2016 indicated that several invasive plant species are located in the vicinity of the proposed project. DOT&PF will comply with Executive Order 13112 (Invasive Species) by ensuring that ground disturbing activities are minimized and disturbed areas are revegetated with seed recommended for the region by Alaska Department of Natural Resources' (ADNR') *A Revegetation Manual for Alaska*.

Material and Disposal Sites

The Contractor would supply material for the runway, subgrade structure, surfacing, and armor protection. Similarly, the Contractor would obtain rights to disposal sites. If the Contractor elects to use an undeveloped material site, contract language will require the Contractor to acquire all necessary permits and clearances for the site(s) and provide copies to the DOT&PF Project Engineer prior to development. Per DOT&PF specifications, the Contractor will also be responsible for implementing a Storm Water Pollution Prevention Plan. Material from a borrow site that has not received the appropriate permits and clearances will not be accepted for project construction.

Migratory Birds and Eagles' Nests

The U.S. Fish and Wildlife Service (USFWS) Information for Planning and Conservation (IPaC) website, reviewed on December 14, 2016, indicated that the following species of migratory birds could potentially be affected by activities in this location:

- Bald Eagle *Haliaeetus leucocephalus* (season: year-round);
- Black Oystercatcher *Haematopus bachmani* (season: year-round);
- Fox Sparrow *Passerella iliaca* (season: breeding);
- Kittlitz's Murrelet *Brachyramphus brevirostris* (season: breeding);
- Lesser Yellowlegs *Tringa flavipes* (season: breeding);
- Marbled Godwit *Limosa fedoa* (season: breeding);
- Marbled Murrelet *Brachyramphus marmoratus* (season: year-round);
- Olive-sided Flycatcher *Contopus cooperi* (season: breeding);
- Pelagic Cormorant *Phalacrocorax pelagicus pelagicus* (season: year-round);
- Rock Sandpiper Calidris ptilocnemis ptilocnemis (season: migrating);
- Rufous Hummingbird *selasphorus rufus* (season: breeding);
- Short-billed Dowitcher *Limnodromus griseus* (season: breeding); and
- Short-eared Owl *Asio flammeus* (season: breeding)

According to the USFWS, in Southcentral Alaska, the recommended time period for avoiding vegetation clearing on shrub or open (shrub cover or marsh, pond, tundra, gravel, or other treeless/shrubless ground) habitat is May 1 through July 15. Clearing and grubbing would not occur within the migratory bird window, except as permitted by federal, state, and local laws.

Although migratory birds may temporarily avoid the project area during construction activity, the proposed project is not likely to result in permanent adverse effects to wildlife due to pre-existing levels of development and disturbance at the airport.

A search of the University of Alaska Southeast and USFWS *Wetland Ecosystems Protocol* website on July 21, 2016, indicated that there are four bald eagle nests within 1,000 feet of the proposed project area:

- Nest No. 5/Object ID 1865 is located within the project area and about 365 feet northeast of Runway 13/31 at 60.1333, -149.4167.
- Nest No. 14/Object ID 1873 is located approximately 290 feet east of the airport and about 789 feet northeast of Runway 13/31 at 60.1349, -149.416.
- Nest No. 6/Object ID 1657 is located approximately 733 feet northeast of the airport and about 1,125 feet northeast of Runway 13/31 at 60.1321, -149.41.
- Nest No. 11/Object ID 1661 is located approximately 911 feet north of the airport and about 1,677 feet north of Runway 13/31 at 60.1396, -149.4235.

DOT&PF would coordinate with the USFWS to determine an appropriate course of action since some bald eagle nests are active and fall within the primary (330 feet) or secondary (660 feet) protection zones.

Navigable Waters

Reviews of the Alaska Department of ADNR's Navigable Waters online mapper on December 15, 2016, indicated that the one navigable river that intersects with the project is the Resurrection River, USGS GNIS ID: 01413859. The USACE's List of Navigable Waters reviewed on December 20, 2016 does not list the Resurrection River as navigable or under the jurisdiction of Section 10 of the Rivers and Harbors Act. Alternative 1.1 would require work within the Resurrection River. DOT&PF would obtain permissions prior to completing any work within the Resurrection River. Further, Resurrection Bay is navigable; however, DOT&PF does not anticipate the bay would be directly impacted by the proposed project.

Noise

Per the FAA Environmental Desk Reference for Airport Actions (2015), a noise analysis is required for actions involving a new airport location, a new runway, a major runway extension, or runway strengthening; or, when annual operations exceed 90,000 propeller operations or 700 jet operations. The projected operations for the Seward Airport do not approach the above-stated operational thresholds; accordingly, no noise analysis will be prepared.

Right-of-Way

The proposed project would not involve the placement of fill outside of the airport property. However, both alternatives will require property acquisition to contain Runway Protection Zones. Alternative 1.1 will require raising Runway 13/31 up to 4 feet at some locations to ensure it is above the 100 year flood elevation. Due to its proximity to the Resurrection River, the

raised runway is expected to produce a rise in the base flood elevation which will cause inundation of numerous private properties outside or airport property (See Figures 4 & 5). Acquisition of the affected properties will be required.

Raising Runway 16/34 (Alternative 2.2) above the 100 year flood level (less than 1 foot) is not anticipated to raise the base flood elevation sufficiently to flood adjacent private properties more than the existing conditions (See Figure 6).

Further mitigation of airspace obstructions may necessitate acquisition of property rights to cut trees and limit build heights for each alternative.

State Parks, National Parks, National Forests, Wild and Scenic River

A search of the ADNR Division of Parks and Outdoor Recreation website on December 14, 2016 indicated the Caines Head State Recreation Area is about 7 miles from the proposed project area. The National Park Service (NPS) website queried December 14, 2016 indicated the Kenai Fjords National Park is about 4 miles from the proposed project. The National Forest Service website review conducted December 14, 2016 indicated that the Chugach National Forest is about 1 mile from the proposed project area. DOT&PF does not anticipate the proposed project would result in any adverse impacts to parks, forests, or wild and scenic rivers.

State Refuges, National Wildlife Refuges, Critical Habitat Areas, and Sanctuaries

A review of ADF&G online listing of State of Alaska Refuges, Critical Habitat Areas, and Sanctuaries and the USFWS' IPaC website on December 15, 2016 indicated that there are no refuges, critical habitat areas or sanctuaries within or adjacent to the proposed project area.

Threatened and Endangered Species

A query on the USFWS' IPaC and ADF&G threatened and endangered species websites on December 14, 2016 indicated that there are no threatened species and one endangered species, the Short-tailed Albatross (*Phoebastria albatrus*), near the proposed project area. A query of the NMFS Endangered Species Act (ESA)/Marine Mammal Protection Act (MMPA) Mapper website on December 15, 2016 indicated that there are 3 endangered species (humpback whale, North Pacific right whale, and sperm whale) in Resurrection Bay just south of the proposed project area. There are no critical habitats within or adjacent to the proposed project area.

DOT&PF does not anticipate the proposed project would impact or adversely affect a threatened or endangered species, since all ESA-listed species are located in Resurrection Bay.

U.S. DOT Act Section 4(f)

Section 4(f) of the Department of Transportation Act of 1966 (recodified at 49 U.S.C. 303(c)) was adopted to protect public parks, recreation lands, wildlife and waterfowl refuges, and historic properties from encroachment by public transportation facilities. The act states that federally-funded transportation projects may not "use" these properties unless there is no other prudent and feasible alternative and the project includes all possible planning to minimize harm, or the project results in a "de minimis" use. Under Section 4(f), a "use" can occur under three circumstances - when land from a 4(f) property is incorporated into a transportation facility; when a 4(f) property is temporarily occupied (adversely); and when the proximity impacts of a

transportation project are so severe that they substantially impair the activities, features, and attributes that qualify the resource for Section 4(f) protection.

Based on a review of state and federal agency protected areas in Alaska and the City of Seward park locations on December 14 and 18, 2016, the proposed project area does not include any public park, recreation area, wildlife and waterfowl refuge of national, State, or local significance or land from a historic site of national, State, or local significance.

Water Quality

Five potential receiving water bodies for the proposed project are listed in Table 1. A review of the ADEC Impaired Waters mapper on December 15, 2016 indicated that none of the receiving waters are impaired.

A review of the ADEC Drinking Water Protection Mapper on December 15, 2016 revealed many groundwater sources and associated drinking water protection areas established along the project corridor. The proposed project is not anticipated to impact local aquifers or established drinking water sources.

Wetlands and Other Waters of the U.S.

DOT&PF conducted a Wetland Delineation and Aquatic Site Assessment in 2004 to determine the presence and extent of wetlands for the 2008 Seward Airport Master Plan Environmental Assessment and Finding of No Significant Impacts. DOT&PF field checked the 2004 delineation in September 2016 and updated wetlands boundaries. Identified wetland types include: Estuarine and Marine Deepwater (E1UBL); Estuarine and Marine Wetland (E2USN, E2USM, E2EM1P); Freshwater Pond (PUBH); Riverine (R3USC, R3UBH); and Freshwater Forested/Shrub Wetland (PFO1/SS1A, PSS1A, PSS1/EM1R, PSS1/EM1C).

DOT&PF anticipates fill would be placed in wetlands for the proposed improvements at the airport. DOT&PF will design the project such that wetland impacts are avoided or minimized to the maximum extent practicable. DOT&PF will comply with mitigation guidelines for any impacts that cannot otherwise be avoided. For purposes of comparison, preliminary estimates of wetland impacts are 5 acres for Alternative 1.1 and 13.5 acres for Alternative 2.2 (see attached Figures 7 and 8).

Social and Economic

A review of the Environmental Protection Agency (EPA) Environmental Justice Mapper on December 15, 2016 indicated the percent of minority populations living within the project area (32%) is less than the rest of the Alaska (37%). The low-income population percent within the proposed project area (29%) is somewhat higher than the rest of the state (26%). The proposed project is not anticipated to adversely affect neighborhoods, community cohesion, or disadvantaged social groups. Alternative 1.1 would result in an increase to the BFE and would likely require property acquisitions to mitigate for the increased flood impact potential. Should this alternative be carried forward for further consideration, DOT&PF will evaluate whether any disadvantaged social groups are disproportionately affected by the increased flood elevations.

Land Use and Transportation Plans

On August 2015, the following land use and transportation plans were identified and will be considered in the development of this project: DOT&PF Seward Airport Master Plan June 2008); DOT&PF 2012-2015 Statewide Transportation Improvement Program (STIP) (amended June 5, 2015); Kenai Peninsula Borough (KPB) Transportation Plan (December 2003); KPB All Hazard Mitigation Plan (June 2005); City of Seward 2020 Comprehensive Plan (June 2005).

Permits and Authorizations

This project may require the following permits:

- APDES CGP for storm water discharge
- ADF&G Fish Habitat Permit
- ADNR Land Use Permit
- USACE Section 404 permit
- KPB Multi-agency Permit
- KPB Floodplain Development Permit

From: Selinger, Jeff S (DFG) <jeff.selinger@alaska.gov>

Sent: Wednesday, January 25, 2017 8:29 AM

To:Boydston, Mark A (DOT); ak_fisheries@fws.gov; erin_knoll@fws.gov; Moore, Eric A

(DNR); DNR, Parks OHA Review Compliance (DNR sponsored); Ashton, William S (DEC); Lidren, Grant M (DEC); Heil, Cynthia L (DEC); Litchfield, Virginia P (DFG); Smith, Jimmy C

(CED); Lidren, Grant M (DEC); Davis, Tammy J (DFG); Kubitzj@akrr.com; Brian

Lindamood; Hcd.Anchorage@noaa.gov; jeanne.hanson@noaa.gov;

dglenz@cityofseward.net; cepoa-rd-kenai@usace.army.mil; MBest@kpb.us;

bharris@kpb.us; ncarver@kpb.us; knoyes@kpb.us; tdearlove@kpb.us

Cc:Elliott, Brian A (DOT); Beaton, Barbara J (DOT); ak-airport-env@faa.govSubject:RE: Seward Airport Improvements / Agency scoping letter

I do not have any wildlife concerns with this proposed project. Jeff

Jeff Selinger Kenai Area Wildlife Biologist Soldotna ADFG Office 907-260-2905 jeff.selinger@alaska.gov From: Speerstra, Linda CIV USARMY CEPOA (US) <Linda.Speerstra@usace.army.mil>

Sent: Friday, February 3, 2017 7:59 AM

To: Boydston, Mark A (DOT)

Cc: Hyslop, Jamie R CIV USARMY CEPOA (US)

Subject: FW: Seward Airport Improvements / Agency scoping letter

Attachments: image001.jpg; Seward AP_Figs 1-8_Agency scoping letter.pdf; Seward AP_Agency

scoping letter 1-24-17.pdf; Seward Airport Improvements_Preliminary Environmental

Research.pdf

Good morning Mark, thank you for contacting the Corps in regards to the Seward Airport Improvements project. I've assigned your information to Mr.

Jamie Hyslop for further review. Have a great weekend! Linda

From: Presley, Stephanie <spresley@kpb.us>
Sent: Wednesday, February 15, 2017 1:35 PM

To: Boydston, Mark A (DOT); Beaton, Barbara J (DOT)

Cc: Harris, Bryr; Dearlove, Tom; Donna Glenz; Long, Ron

Subject: RE: Seward Airport Improvements / Agency scoping letter

Attachments: SBCFSA Comments Re Seward Airport Improvements 021517.pdf

Mr. Boydston and Ms. Beaton,

Please find attached comments from the Seward/ Bear Creek Flood Service Area board. Below are additional comments and questions from staff.

We would appreciate receiving the DOT&PF flood study for the proposed project.

The airport needs listed in the scoping letter includes "construct flood protection to prevent erosion damage from the 100-year flood". Could you please provide details of the proposed protection measures?

The scoping letter states property acquisition would be required for both alternatives. Would this be acquisition of the Civil Air Patrol and/ or KPB parcels north of the airport?

Of note in the preliminary environmental research, the KPB and City of Seward FIRMs were revised October 20, 2016. Though the floodway boundaries did not change, the AE/VE zones were revised in the coastal study. Panels 02122C4543E and 02122C5006E are the currently effective FIRMs.

Please add this email address to the agency and stakeholders group lists for future correspondence/ meetings.

Thank you for the opportunity to comment on this project.

Best regards,

Stephanie Presley

Service Area Coordinator, CFM Seward/Bear Creek Flood Service Area P.O. Box 1554, Seward, Alaska 99664 Ph: (907) 224-3340 Fax: (907) 224-5197 www.kpb.us/service-areas/sbcfsa

Like us on Facebook for periodic information and updates.



Kenai Peninsula Borough Seward/Bear Creek Flood Service Area

302 Railway Ave, Suite 123, P.O. Box 1554 Seward, Alaska 99664 (907) 224-3340 (Fax) 224-5197 www.kpb.us/service-areas/sbcfsa

February 15, 2017

State of Alaska Department of Transportation & Public Facilities Preliminary Design and Environmental Section P.O. Box 196900 Anchorage, Alaska 99519-6900

Re: Request for scoping comments Project: Seward Airport Improvements Project No.: TBD/ Z5485700000

At the February 13, 2017 regular meeting of the Seward/Bear Creek Flood Service Area, the board reviewed the Agency Scoping Letter, Preliminary Environmental Research including Figures 1 through 8, and voted unanimously to provide the following comments regarding the Seward Airport Improvement project.

The SBCFSA board is in support of the needed improvements at the Seward airport and advise the State to take the necessary action to protect this important investment from future flood damages. As stated in the agency scoping letter, the service area has experienced major flooding at least six times and multiple high water events over the last 30 years. Flood waters from Resurrection River have overtopped the runways and airport property many times, with increasing frequency in recent years.

Resurrection River transports huge volumes of sediment each year, migrating channels with each high water event. Following one major event, the main channel was directed south, straight into the long runway, instead of flowing down the east bank channels. The SBCFSA board would highly recommend this project include rerouting the channel back to the east bank to minimize erosion of the runway and future flood damages.

Regardless of which alternative is selected, elevating the runways and installing additional erosion protection will be a short-term solution, and will not address the cause of runway erosion. The expense of the proposed improvements may have been avoided by regular mitigation in Resurrection River. To maximize the use of tax-payer dollars, the board recommends this project include a long-term flood mitigation plan for annual sediment removal and channel maintenance. Materials removed from the rerouted channel could be used to reinforce embankments directing flood waters away from the airport. Without

mitigation of sediment and regular channel maintenance, the improved infrastructure at the airport will continue to be threatened, costing additional tax-payer dollars.

The SBCFSA board is supportive of the improvements to the airport and could work with the State to protect this investment from future flood damages. Please feel free to contact our administrative office for additional information or assistance.

Respectfully,

Bill Williamson, Chairman

Seward/Bear Creek Flood Service Area Board



Department of Transportation and Public Facilities

DESIGN & ENGINEERING SERVICES
Aviation Design

PO Box 196900 Arichorage, AK 99519-6900 Phone Number: 907 269 0617

Toll Free: 800 770 5263 TDD: 907 269 0473 TTY: 800 770 8973

Fax Number: 907 248 1573 Web Site: dot.state.ak.us

April 19, 2017

Bill Williamson Chairman Seward/Bear Creek Flood Service Area Board P.O. Box 1554 Seward, AK 99664

Dear Mr. Williamson:

The Alaska Department of Transportation & Public Facilities (DOT&PF) would like to thank you for your response to our January 24, 2017 request for agency comments. We appreciate your support of the Seward Airport Improvements project.

The Resurrection River's migration to the west, along the edge of the runway, is indeed unfortunate. DOT&PF has evaluated the potential for dredging in the river and has found that this solution is not viable. A memo, prepared by the projects Hydrologist describing the rationale behind this decision, can be found on the projects website:

http://www.dot.state.ak.us/creg/sewardairport/documents/Resurrection-River-Excavation-Memo-final.pdf

DOT&PF is committed to finding the engineering alternative which best addresses all the issues at the airport, including the flooding issue. We welcome your input. Comments and questions from Stephanie Presley have been answered. We have also sent a copy of the Hydrologic and Hydraulic Report to Bryr Harris. Through an open and collaborative process we hope to ensure the success of this project.

If you are interested in keeping up with the project, please go to the website and sign up on the mailing list. When the site is updated, a notice is sent out to everyone on the mailing list.

If you have further questions regarding the environmental effects of this project, please contact Mark Boydston, Environmental Impact Analyst, at (907) 269-0524 or via email at mark.boydston@alaska.gov. Questions or input regarding the engineering aspects of the proposed project can be directed to me at (907) 269-0617 or via email at barbara.beaton@alaska.gov.

Sincerely,

Barbara J. Beaton, P.E.

Project Manager

_ _ _ _

From: Olivia Cohn <olivia@solsticeak.com>
Sent: Friday, February 17, 2017 3:17 PM

To: 'Douglass_cooper@fws.gov'; 'Leah_kenney@fws.gov'; 'shina.duvall@alaska.gov';

'william.ashton@alaska.gov'; 'grant.lidren@alaska.gov'; 'cindy.heil@alaska.gov'; 'Vlitchfield@kpb.us'; 'ginny.litchfield@alaska.gov'; 'jimmy.smith@alaska.gov'; 'grant.lidren@alaska.gov'; 'tammy.davis@alaska.gov'; 'jeff.selinger@alaska.gov'; 'liv.histoi@alaska.gov'; 'liv.

'Kubitzj@akrr.com'; 'LindamoodB@akrr.com'; 'jeanne.hanson@noaa.gov';

'matthew.eagleton@noaa.gov'; 'greg.balogh@noaa.gov'; 'dglenz@cityofseward.net';

'Jamie.r.hyslop@usace.army.mil'; 'spresley@kpb.us'; 'bharris@kpb.us';

'tdearlove@kpb.us'

Cc: Beaton, Barbara J (DOT); 'Royce Conlon'; 'Robin Reich'

Subject: 3/2/17 Seward Airport Project Agency Scoping Mtg., Soldotna

Good afternoon -

Thank you for responding to a recent email and Doodle Poll inviting you to the agency scoping meeting for the Seward Airport Improvement Project. DOT&PF is initiating environmental scoping for a project at the airport that will likely include:

- Runway/taxiway improvements
- Pavement rehabilitation or reconstruction
- Installation of new airport lighting and an electrical enclosure building
- New navigational aids

We have determined that the best time to meet is:

Thursday, March 2, 2017 from 1:00 pm to 3:00 pm

At the Kenai Peninsula College, Kenai River Campus, 156 College Rd., Soldotna CTEC Building, Room 105

The Project's Purpose and Need, Alternatives, and potential environmental concerns will be discussed. We will be sending additional project information and an agenda prior to the meeting.

In an effort to maximize agency participation, this meeting will take place in Soldotna. If you are unable to attend in person, however, please contact me to set up a teleconference. If you are unable to attend during the meeting time, we may be able to set up a separate meeting or time to talk.

Thank you.

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



From: Olivia Cohn

Sent: Wednesday, March 1, 2017 9:51 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

Cc: barbara.beaton@alaska.gov; RoyceConlon@pdceng.com; Robin Reich;

EricaBetts@pdceng.com

Subject: Reminder and Mtg. Materials: 3/2/17 Seward Airport ProjectAgency Scoping Mtg.,

Soldotna

Attachments: MtgAgenda_SewardAirportAgencyScoping_2017-03-02.pdf;

SewardAirportAlternativesFigures.pdf

We look forward to seeing you this **Thursday, March 2, 2017 at 1:00 p.m.** for the Seward Airport Improvement Project agency scoping meeting.

As a reminder, the meeting will take place at the Kenai Peninsula College, Kenai River Campus (156 College Rd., Soldotna, Alaska) in the CTEC Building, Room 105.

Please find the meeting agenda attached. In addition, the Seward Airport Improvement Project Frequently Asked Questions (online at www.dot.state.ak.us/creg/sewardairport/faq.shtml) and Resurrection River memorandum (online at www.dot.state.ak.us/creg/sewardairport/documents.shtml) are available on the Project website and will be discussed during the meeting. The Project Alternatives will also be discussed and are attached.

For those of you who will be teleconferencing in to the meeting, please use the following call in details:

- Call 1-800-315-6338
- Use passcode 10285#

Thank you.

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





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

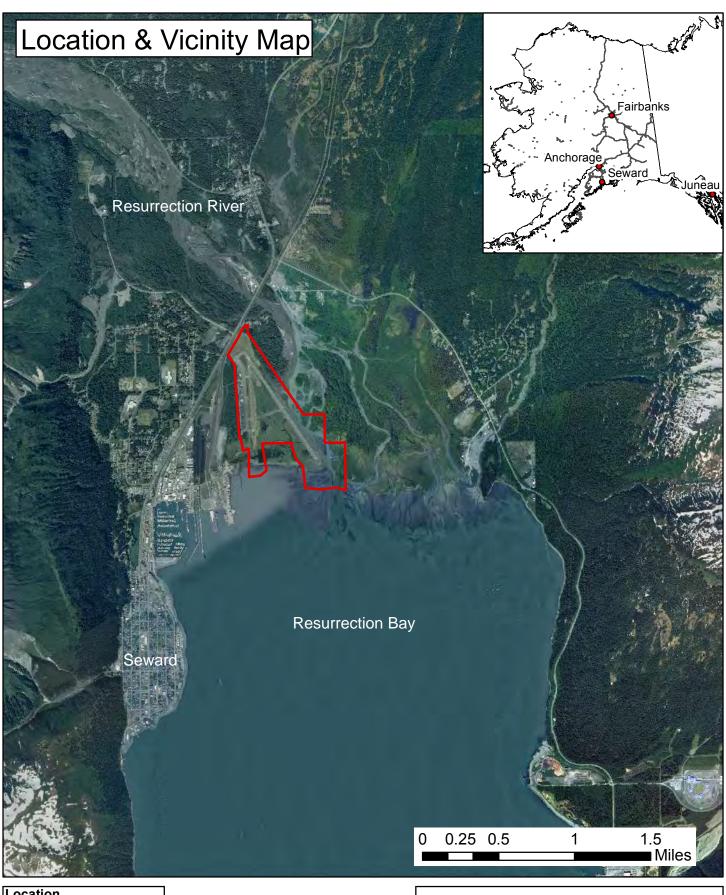
For technical questions, please contact:

Barbara Beaton, P.E. DOT&PF Project

Manager

Email: barbara.beaton@alaska.gov

Phone: 907.269.0617



Location

Section: 34, 35 - 2, 3 Township: 1N - 1S Range: 1W

Meridian: Seward USGS Quad: Seward A-7



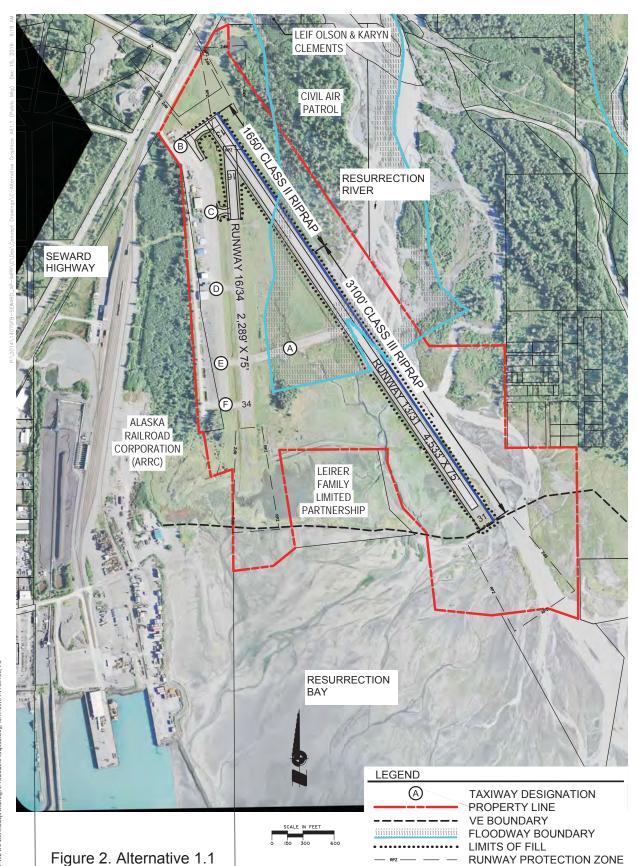
Legend

Seward Airport

State of Alaska Department of Transportation and Public Facilities Central Region

Seward Airport Improvements

12/12/16 Date: Figure:



From: Dwayne Atwood [mailto:datwood@cityofseward.net]

Sent: Wednesday, February 22, 2017 3:46 PM

To: Boydston, Mark A (DOT); Beaton, Barbara J (DOT)

Cc: Ron Long; Donna Glenz

Subject: Seward Airport Improvements / Scoping Letter (Project No. TBD/ Z548570000)

Dear Mr. Boydston and Ms. Beaton,

Attached you will find a letter of comment from the City of Seward. We appreciate the opportunity to provide input on the proposed Seward Airport Improvement project. Please add this email address (as well as the address for Assistant City Manager Ron Long) to the agency stakeholders list for future correspondence.

Thank you,

Dwayne Atwood, Planning Technician

Certified Floodplain Manager, CFM

<u>City of Seward</u>

Community Development Department
P.O. Box 167

Seward, Alaska 99664
(907) 224-4049

PO. BOX 167 SEWARD, ALASKA 99664-0167



Main Office (907) 224-4050

Police (907) 224-3338

Harbor (907) 224-3138

Fire (907) 224-3445

City Clerk (907) 224-4046
 Engineering (907) 224-4049

Utilities (907) 224-4050

Fax (907) 224-4038

February 22, 2017

DOT&PF
Design & Engineering Services
Preliminary Design & Environmental
P.O. Box 196900
Anchorage, Alaska 99519-6900

Dear Brian Elliott

Thank you for the opportunity to comment on the proposed Seward Airport Improvement project.

The City of Seward desires to see the same result as DOT&PF: a reliable working airport meeting ADG-II and Alaska Community Class airport design standards, and that will accommodate future demand and growth. We offer the following, based on your agency scoping letter of January 24, 2017.

As you've noted, recent changes in stream morphology have resulted in more frequent overtopping of R/W 13/31. It has also shifted the main watercourse of Resurrection River to the west, at first obliquely against and then aligned with the runway. It is fair to say that, rather than "...the main runway is located adjacent to the river..." that the river has relocated itself adjacent to the runway. We have discussed this in the DOT sponsored community meetings held over the last couple of years to address this issue, and were informed that in-river work, or channelization, is prohibited. Doing such work in the river is not impossible, or even impractical. Routine in-river work mining gravel, protecting riverbanks and adjacent properties, and performing flood mitigation and prevention tasks are routinely permitted and completed, both by government agencies and private parties in and adjacent to the Resurrection River. Redirecting the river as an element of protecting the runway should not be taken off the table. As is common with rapid transfer high-deposition streams in the area watershed, watercourses migrate within the floodplain boundaries, and at some point this river will be somewhere other than where it is now. Formulating a protection strategy (Alt 1.1 or 2.2) on an assumption that the floodway watercourse will remain in one place like a well-defined Kenai River or similar will likely impede the river from migrating further west, but will be of no use if the river migrates to the east. From a floodplain manager's perspective rerouting the river or placing obstructions that shape and limit the river's own natural relocation are channelization activities that require engineering and permitting. Neither is impossible, nor is one prohibited and the other allowed outright.

The current flow path continues to deposit material at the head of Resurrection Bay, causing siltation at the Alaska Railroad dock that requires ongoing maintenance and expense. It may be that the Railroad prefers a one-time larger investment (with others) towards relocating the river flow to the channel further east, where the predominant flow was located until fairly recently. This would allow natural siltation to continue, but without repeatedly impacting shipping operations.

The possible need to acquire private properties in order to implement either alternative was mentioned. Without specific parcels being identified in the scoping letter, we can't be sure which properties would be impacted, but it is likely the numerous smaller parcels to the east of R/W 13/31. These properties, though

subdivided and platted, can never be practically developed. There is no legal access, and gaining same would be a large multi-agency effort. There are no utilities (required by City Code prior to issuing building permits), and no easements across the various private and public lands that would be crossed to connect utilities. These facts are reflected in the assessor's tax values; most of the smaller lots are valued at less than \$1,000. Several owners have deeded their properties to the City in order to avoid paying taxes on undevelopable property. This gives the City, and the Seward Bear Creek Flood Service Area, a conservation and flood mitigation set-aside that's very valuable in providing needed "sponge" areas, with vegetation as stabilization. If acquisition of some or all of these parcels is necessary to implement the project work, the City will facilitate in any way we can, including acquisition and assisting with a LOMR.

We view the restoration of the predominant flow of Resurrection River to its historic channel matrix to the east, which includes sufficient width for inevitable meandering, as critical to the lasting success of either alternative. We prefer Alternative 1.1 as the less intensive in terms of wetlands impacts (~5 acres v. 13.5 for Alternative 2.2), likelihood of less ongoing maintenance, mitigation of continuing impacts to shipping at the Alaska Railroad dock, and most likely to meet the common goals of a working and reliable airport that meets applicable design criteria and plans for future demand and growth.

The scoping letter mentions that Seward is served by rail, road, and the marine highway; the Alaska Marine Highway System suspended operation in and from Seward in the every early 2000's.

We appreciate the opportunity to comment on this important project. We look forward to participating in the continuing discussion.

Sincerely,

City of Seward, Alaska

Ron Long,

Assistant City Manager

Donna Glenz,

City Planner (for Ron Long)

Email: rlong@cityofseward.net

Phone: 907 224-2020



Department of Transportation and Public Facilities

DESIGN & ENGINEERING SERVICES

Aviation Design

PO Box 196900 Anchorage, AK 99519-6900 Phone Number; 907 269 0617

Toll Free: 800 770 5263 TDD: 907 269 0473 TTY: 800 770 8973

Fax Number: 907 248 1573 Web Sile: dot.state.ak.us

April 19, 2017

Ron Long Assistant City Manager City of Seward P.O. Box 167 Seward, AK 99664

Dear Mr. Long:

The Alaska Department of Transportation & Public Facilities (DOT&PF) would like to thank you for your response to our January 24, 2017 request for agency comments. We appreciate your support of the Seward Airport Improvements project.

DOT&PF has evaluated the potential for dredging in the river and has found that this solution is not viable. A memo describing the rationale behind this decision can be found on the projects website: http://www.dot.state.ak.us/creg/sewardairport/documents/Resurrection-River-Excavation-Memo-final.pdf

Flood maps showing the extent of the existing 100 year flood, as well as the 100 year flood maps for each alternative, were included in the scoping package. These maps included property boundary lines. By inspection, more properties are affected by flood waters from Alternative 1.1 versus Alternative 2.2. According to the Borough Tax Map, many of these properties are under private ownership. Mitigation for flood impacts will be assessed during the property acquisition phase. We will identify properties that will require acquisition as part of the project alternative(s) to be carried forward in the environmental document.

Thank you for identifying our error concerning the Alaska Marine Highway System. If you have further questions regarding the environmental effects of this project, please contact Mark Boydston, Environmental Impact Analyst, at (907) 269-0524 or via email at mark.boydston@alaska.gov. Questions regarding the engineering aspects of the proposed project can be directed to me at (907) 269-0617 or via email at barbara.beaton@alaska.gov.

Sincerely,

Birlany Best Barbara J. Beaton, P.E.

Project Manager

cc: Donna Glenz, City Planner

From: Kindred, Cori M (DNR)

Sent: Thursday, February 23, 2017 4:04 PM

To: Boydston, Mark A (DOT)

Subject: RE: Seward Airport Improvements / Agency scoping letter

Mr. Boydston,

The Department of Natural Resources (DNR) Division of Mining, Land and Water, Southcentral Regional Land Office (SCRO) wishes to ensure that the Department of Transportation and Public Facilities is aware of the following information concerning the proposed Seward Airport Improvements project area in order to better assist the agency in its decision making-process regarding the proposed project:

- DOTPF's management rights in the project area are limited to uplands only, therefore, DOTPF has no managing interest below ordinary high water (OHW) of the Resurrection River. If the project requires work or improvements below OHW of the Resurrection River or otherwise outside of DOTPF's existing management rights, authorization is required from SCRO.
- DOTPF states that the proposed project alternatives are not anticipated to directly impact Resurrection Bay but may require work within the Resurrection River. The State places a high value on navigable water access. While SCRO supports DOTPF's planned activities in the project area, our office also requests that navigation of the river not be restricted as a result of airport construction or operation.
- Gravel and similar rock materials can be purchased from SCRO- managed material sites if required for the project. The contact for SCRO material sales is Chandler Long, 269-8560, or chandler.long@alaska.gov.

Please let me know if there are questions regarding these comments. Thank you for the opportunity to comment. -Cori Kindred

Cori Kindred

Natural Resource Specialist II
Department of Natural Resources
Division of Mining, Land & Water
Southcentral Region, Easement Management Unit
550 W 7th Ave, Suite 900c
Anchorage, AK 99501
(907) 334-2676

From: Hyslop, Jamie R CIV USARMY CEPOA (US) < Jamie.R.Hyslop@usace.army.mil>

Sent: Thursday, February 23, 2017 9:41 AM

To: Boydston, Mark A (DOT); Beaton, Barbara J (DOT)

Cc: Speerstra, Linda CIV USARMY CEPOA (US)

Subject: POA-1989-672, Resurrection River, Seward Airport Improvements, Corps Response to

Agency Scoping Letter

Attachments: POA-1989-672_Scoping Letter.pdf

Mark and Barbara,

Please see the enclosed comment letter concerning the agency scoping letter you sent January 24, 2017, for the Seward Airport Improvement Project.

Please let me know if you have any questions.

Respectfully, Jamie Hyslop Project Manager 907-753-2670



DEPARTMENT OF THE ARMY

ALASKA DISTRICT, U.S. ARMY CORPS OF ENGINEERS
REGULATORY DIVISION
44669B STERLING HIGHWAY
SOLDOTNA, ALASKA 99669

February 23, 2017

Regulatory Division POA-1989-672

Mr. Brian Elliott Alaska Department of Transportation Post Office Box 196900

Dear Mr. Elliott:

The United States (U.S.) Army Corps of Engineers, Alaska District (Corps) is providing this letter as a written comment to the January 24, 2017, Seward Airport Improvements Scoping Letter. Your project has been assigned number POA-1989-672, Resurrection River, which should be referred to in all correspondence with us.

The Corps' regulatory authorities are based on two laws: Section 10 of the Rivers and Harbors Act (RHA) of 1899 (33 USC 403), which prohibits the obstruction or alteration of navigable waters of the U.S. without a permit from the Corps; and Section 404 of the Clean Water Act (CWA), which prohibits the discharge of dredged or fill material into waters of the U.S. without a Corps permit. Based on information provided, and available to our office, portions of the proposed work may occur in waters of the U.S. and would, therefore, be within the Corps' jurisdiction.

Waters of the U.S. include, but are not limited to, tidal waters, rivers both perennial and intermittent streams and wetlands. Wetlands are defined as areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands include "muskegs", swamps, marshes, bogs, and similar areas.

The Corps' evaluation of a Section 10 and/or a Section 404 permit application involves multiple analyses, including (1) evaluating the proposal's impacts in accordance with the National Environmental Policy Act (NEPA) (33 CFR part 325), (2) determining whether the proposal is contrary to the public interest (33 CFR § 320.4), and (3) in the case of a Section 404 permit, determining whether the proposal complies with the Section 404(b)(1) Guidelines (Guidelines) (40 CFR part 230).

If the proposal requires a Section 404 permit application, the Guidelines specifically require that "no discharge of dredged or fill material shall be permitted if there is a

practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences" (40 CFR § 230.10(a)). Time and money spent on the proposal prior to applying for a Section 404 permit cannot be factored into the Corps' decision whether there is a less damaging practicable alternative to the proposal.

If an application for a Corps permit has not yet been submitted, the project proposer may request a pre-application consultation meeting with the Corps to obtain information regarding the data, studies or other information that will be necessary for the permit evaluation process. A pre-application consultation meeting is strongly recommended if the proposal has substantial impacts to waters of the United States, or if it is a large or controversial project.

Nothing in this letter excuses you from compliance with other Federal, State, or local statutes, ordinances, or regulations.

Please contact me via email at Jamie.R.Hyslop@usace.army.mil, by mail at the address above, by phone at (907) 753-2670, if you have questions. For more information about the Regulatory Program, please visit our website at http://www.poa.usace.army.mil/Missions/Regulatory.aspx.

Sincerely,

Jamie Hyslop Project Manager Date: **May 26, 2017** Time: **10:00 am**

Location: Teleconference

Meeting Subject: Seward Airport Improvements Alternatives Discussion with U.S. Army Corps

of Engineers (USACE)

Introduction

The purpose of this teleconference was to further explain the rationale for dismissing Seward Airport Improvements alternatives with the USACE.

Table 1. Meeting Attendees

Organization	Name
U.S. Army Corps of Engineers	Jamie Hyslop
Alaska Department of Transportation and Public Facilities	Barbara Beaton, Mark Boydston
(project team)	
PDC Engineers, Inc. (project team)	Royce Conlon, Erica Betts
Solstice Alaska Consulting, Inc. (project team)	Robin Reich

Welcome and Team and Agency Representative Introductions

The meeting began at 10:00am with introductions led by Barbara Beaton, Alaska Department of Transportation and Public Facilities (DOT&PF).

Alternatives Background

Barbara presented the rationale for dismissing Alternative 1.1 and maintaining Alternative 2.2 into the environmental document phase, referencing the attached report. She said that DOT&PF is considering dismissing Alternative 1.1 from further consideration in the environmental assessment because it would:

- Raise the flood level of the Resurrection River and create the greatest flood impacts within the floodplain
- Have considerable maintenance needs to stay operational
- Result in fish habitat impacts because of fill within the Resurrection River channel
- Impact medivac operations because the only suitable runway for the medivac aircraft (RW 13-31) would be closed during construction

She said that DOT&PF is proposing moving forward with consideration of Alternative 2.2 and the No Action Alternative.

Jamie Hyslop, USACE, said that the USACE is required to authorize only the least environmentally damaging practicable alternative. An alternative is practicable if it can be constructed, is an existing and feasible technology, and if the costs are reasonable. The USACE must also consider the public interest review factors, including the purpose and need for the

project. Jamie said that it appears that Alternative 1.1 may not meet the purpose and need, since it may not be reliable during or after flood events. If that is the case, DOT&PF may be able to dismiss the alternative as not practicable.

Jamie said that from the information that was provided, he is unable to compare the alternative to determine which is least environmentally damaging (i.e. which alternative has the most/least wetlands impacts). Jamie said that to fully consider whether the alternative would be permitted, the USACE needs a full description of the environmental impacts, including the fill below mean high water and wetlands and marine impacts.

He said that during the permitting process, practicability, including how well the project meets the purpose and need, and the environmental impacts would be considered; but since he doesn't have an application to consider, he can't tell DOT&PF whether Alternative 2.2 is "permitable."

Barb asked whether DOT&PF should prepare and submit an application. Jamie said that is the next step. He said that the application should be for the preferred alternative and that it should explain how it was selected. He would like to see a separate alternatives analysis in the application. The analysis should consider each alternative and whether it meets the purpose and need for the project. The USACE would consider whether each alternative meets the public interest factors.

Jamie said that the process would include 15 days for the USACE to comment/ask for clarification on the application and then time for DOT&PF to address comments. Then the USACE would move to the decision phase.

Royce Conlon, PDC, stated that currently DOT&PF are consulting with the Federal Aviation Administration (FAA). The FAA may determine that Alternative 1.1 is not reasonable to carry forward because it would result in significant impacts and require an Environmental Impact Statement (EIS). Royce asked whether the FAA's determination of significance would weigh into the USACE's decision making process.

Jamie said that he did not have experience with using another federal agency's determination; however, it might not need USACE's requirement for permitting the least environmentally damaging alternative.

Mark Boydston, DOT&PF, stated that the DOT&PF hydrologist says that the Resurrection River dynamics make Alternative 1.1 unfeasible. Barbara said that DOT&PF will likely use the hydrologist's rationale that Alternative 1.1 is not reasonable to move forward with Alternative 2.2 (and the no action alternative) into the environmental document phase.

DOT&PF / USACE Teleconference Summary May 26, 2017 Seward Airport Improvements Page 3

Jamie explained the difference between the USACE's authority under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act. He said that in Seward, activities below the high tide line, which is 13.8 feet, and adjacent wetlands would fall under Section 404. Activities below mean high water (9.7 feet) would fall under Section 10. Robin Reich, Solstice Alaska Consulting, Inc., said that the permitting process is the same for both Section 10 and 404. Jamie said that he would want to see the areas and volumes for Section 404 and Section 10 waters detailed in the application.

Barbara asked whether the USACE would be open to mitigation and whether using a mitigation bank would be acceptable. Jamie said that the USACE's order of preference for mitigation is: 1) mitigation banks; 2) in-lieu fee; 3) permittee responsible mitigation. He said that the DOT&PF should identify mitigation within the application.

Adjourn

The meeting concluded at 11:00 am.

From: Brian Lindamood [mailto:LindamoodB@akrr.com]

Sent: Friday, February 24, 2017 2:32 PM

To: brian.Elliot@alaska.gov

Cc: Clark Hopp; James Kubitz; Blake Adolfae; Rachel Maddy; Douglas Stephens; Christy Terry; Boydston, Mark A (DOT);

Andy Donovan

Subject: Seward Airport Master Plan Comments

Mr. Elliot-

Please find our comments regarding the Seward Airport Master Plan documents you sent last month. A hard copy will follow in the mail.

Sincerely,

Brian A. Lindamood, PE, SE

Director - Capital Projects

907.265.3095 office | 907.441.6088 mobile mailing: PO Box 107500, Anchorage, AK 99510-7500 physical: 327 W. Ship Creek Ave, Anchorage, AK 99501

web: www.AlaskaRailroad.com





February 24, 2017

Brian Elliot
Alaska Department of Transportation and Public Facilities
4111 Aviation Avenue, PO Box 196900
Anchorage, AK 99519-6900

ENGINEERING TEL 907.265.3095 FAX 907.265.2638

RE: Seward Airport Master Plan Comments

Dear Mr. Elliot:

The Alaska Railroad (ARRC) has reviewed the documents provided by the Alaska Department of transportation and Public Facilities (the "Department") on January 24th, 2017. We have also had additional discussions with the Department regarding our ongoing master planning process with our Seward Terminal that abuts the Seward Airport, and have participated in some discussions with the Department regarding the possible transfer of land owned by ARRC that is under lease to the airport. While ARRC has no specific objections regarding what the Department has proposed, we do have two concerns which must be addressed.

First, ARRC presently uses the Airport Access Road for access to large tracts of property on the east side of our reserve. Access is accommodated by two driveway permits along the road, and where the road enters our right-of-way at the north end of the reserve. Our planning requires that we retain what is effectively public use of this road, and we expect that traffic along this corridor will grow over time. It is our understanding that there may be some federal implications associated with funding that may run afoul of this use. We request that the Department take the steps necessary to ensure that our use is not restricted.

Secondly, the proposed southward extension of Runway 16/34 will shift the existing "air rights" that the Department currently has over ARRC property over an area we plan for marine freight development. Given the nature of marine freight operations, it is possible that the extension of these air rights will prevent, restrict, or certainly complicate ARRC's planned development in this area. If the runway is to be extended as shown, any further restrictions on ARRC airspace that encumber ARRC's development in any way will have to be fully mitigated by the Department.

Thank you for the opportunity to comment on the document. Please feel free to contact me if you have any further questions.

Sincerely

Brian Lindamood, PE, SE

Director, Capital Projects

cc: Clark Hopp

Roy Thomas

Andy Donovan

Blake Adolfae

Rachel Maddy

Jim Kubitz

Mark Boydston



Department of Transportation and Public Facilities

DESIGN & ENGINEERING SERVICES
Aviation Design

PO Box 196900 Anchorage, AK 99519-6900 Phone Number: 907 269 0617 Toll Free: 800 770 5263

> IDD: 907 269 0473 TTY: 800 770 8973 Fax Number: 907 248 1573

Web Site: dot.state.ak,us

April 18, 2017

Brian Lindamood, P.E., S.E. Director, Capital Projects Alaska Railroad Corporation 327 W. Ship Creek Avenue Anchorage, AK 99501

Dear Mr. Lindamood:

The Alaska Department of Transportation & Public Facilities (DOT&PF) would like to thank you for your response to our January 24, 2017 request for agency comments. We have appreciated the ARRC's open communication during the scoping phase of this project.

We are aware of the ARRC's desire to use the current Airport Access Road as future access to your property. Our Right of Way Chief is taking the lead on this issue as well as the proposed land exchange. Should the department elect to move forward with Alternative 2.2, impacts to ARRC property resulting from airspace requirements, will be addressed during the property acquisition phase of the project. However we first need to complete the environmental process.

DOT&PF is committed to finding the engineering alternative which best addresses all the issues at the airport. We will continue to keep the Seward Working Group (the ARRC is a member) informed of our progress. Through an open and collaborative process we hope to ensure the success of this project.

If you have further questions regarding the environmental effects of this project, please contact Mark Boydston, Environmental Impact Analyst, at (907) 269-0524 or via email at mark.boydston@alaska.gov. Questions regarding the engineering aspects of the proposed project can be directed to me at (907) 269-0617 or via email at barbara.beaton@alaska.gov.

Sincerely,

Barbara J. Beaton, P.E.

Grenny Beace

Project Manager

From: Harris, Bryr <bharris@kpb.us>

Sent: Wednesday, March 1, 2017 11:21 AM

To: Olivia Cohn

Subject: RE: Reminder and Mtg. Materials: 3/2/17 Seward Airport ProjectAgency Scoping Mtg.,

Soldotna

Good morning Olivia,

I will be attending tomorrow's meeting. I've been looking through the materials you provided and those on the project website. It mentions that an H&H study has been conducted and that FEMA will be consulted as part of the environmental assessment. Is it possible to see a report from the H&H? Will the project include submitting a Conditional Letter of Map Revision (CLOMR) to FEMA?

Thank you!

Bryr Harris

Floodplain Administrator, CFM Kenai Peninsula Borough • River Center 514 Funny River Road Soldotna, AK 99669 (907) 714-2464 • <u>bharris@kpb.us</u> <u>www.kenairivercenter.org</u> From: Olivia Cohn

Sent: Wednesday, March 22, 2017 10:47 AM

To: 'Leah_kenney@fws.gov'

Cc: 'Robin Reich'; 'Royce Conlon'; Beaton, Barbara J (DOT); 'Erica Betts'

Subject: Request for Scoping Comments for the Seward Airport Improvement Project Agency

Scoping

Attachments: Seward AP_Figs 1-8_Agency scoping letter.pdf

Hello Leah:

After the Seward Airport Improvements Project agency scoping meeting took place on March 2, 2017, you indicated that you would like a copy of the Alaska Department of Transportation and Public Facilities' (DOT&PF) request for scoping comments for this Project.

Please find the DOT&PF's request for scoping comments letter and accompanying materials attached.

Thank you,

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



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 - - - - - -

Solstice AK

From: 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



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	Jamie Hyslop
Division	
U.S. Fish and Wildlife Service (USFWS)	Leah Kenney (via teleconference)
Alaska Department of Transportation and Public Facilities (DOT&PF)	Barbara Beaton, Joy Vaughn
(project team)	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	Cindy Heil
Air Quality, Non-Point & Mobile Sources Program	
ADEC, Division of Spill Prevention and Response, Contaminated Sites	Grant Lidren
ADEC, Division of Water, Wastewater Discharge Authorization,	William Ashton
Stormwater and Wetlands	
Alaska Department of Natural Resources (ADNR), Division of Parks &	Shina duVall, RPA
Outdoor Recreation (DPOR), State Historic Preservation Officer (SHPO)	
Alaska Department of Commerce, Community, & Economic	Jimmy Smith
Development (ADCCED), Division of Community & Regional Affairs	
ADF&G, Division of Wildlife Conservation	Jeff Selinger
Alaska Railroad Corporation (ARRC)	Brian Lindamood, Jim Kubitz
КРВ	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.



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.
 - o 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.
 - o 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.
 - o 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.
 - o 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.
 - o 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.

Agency Scoping Meeting March 2, 2017 Seward Airport Improvements Project Page **8**

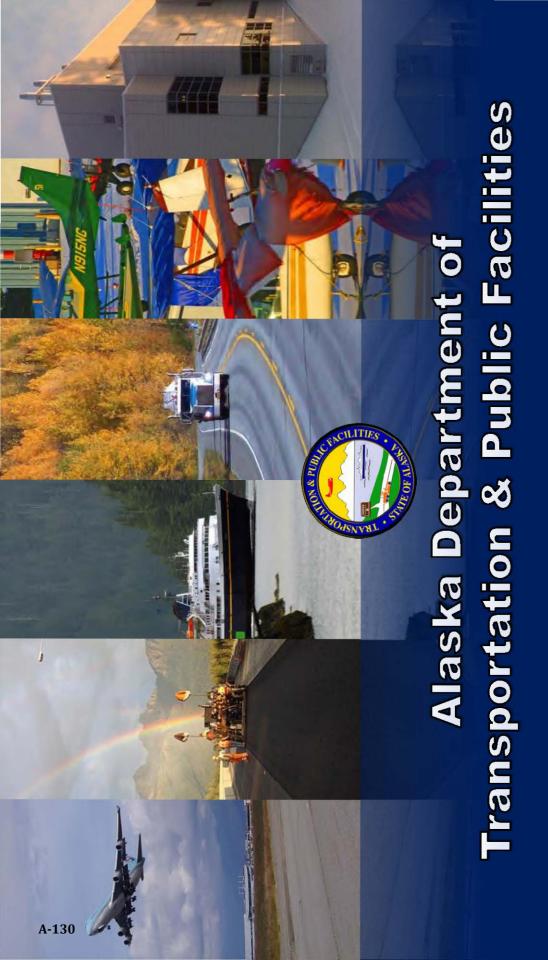
Comments. Comments should be directed to Mark (mark.boydston@alaska.gov, 907-269-0524), and technical questions should be directed to Barbara (barbara.beaton@alaska.gov, 907-269-0617). Technical questions may be directed to Joy at 907-269-0812 while Barbara is out of office through March 20, 2017.

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.



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)

A-131



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



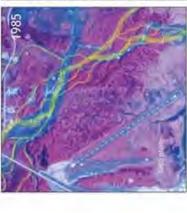
樹ydrology is the Biggest Challenge of this Project



River flooding has caused:

- As floodwaters recede, fines (the binding material or "glue") in the base materials → Extensive erosion that compromises the runway's pavement structure. 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.

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

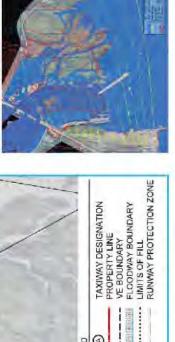
- Reconstruct and raise Runway 13-31 above the 100-year flood level. nstall riprap to protect the embankment.
- Adjust elevations of Runway 16-34 and Taxiways B and C to match new runway elevation. Eliminate Taxiways A, D, and E to comply with new FAA guidance.

Key Advantage

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

Key Disadvantages

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







ALTERNATIVE 2.2

LEIF CLSON & KARYN

PATROL

Shift Existing Crosswind Runway (16-34) East Æ 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.

3

2300 CLASS

- 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.

LEINER FAMLY LIMITED PARTNERSHIP

RAILROAD CORPORATION (ARRC)

- 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.

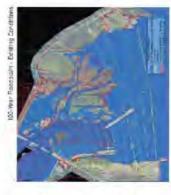
Key Disadvantages

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

FLOODWAY BOUNDARY LIMITS OF FILL RUNWAY PROTECTION ZONE

TAXIWAY DESIGNATION PROPERTY LINE VE BOUNDARY

LEGEND

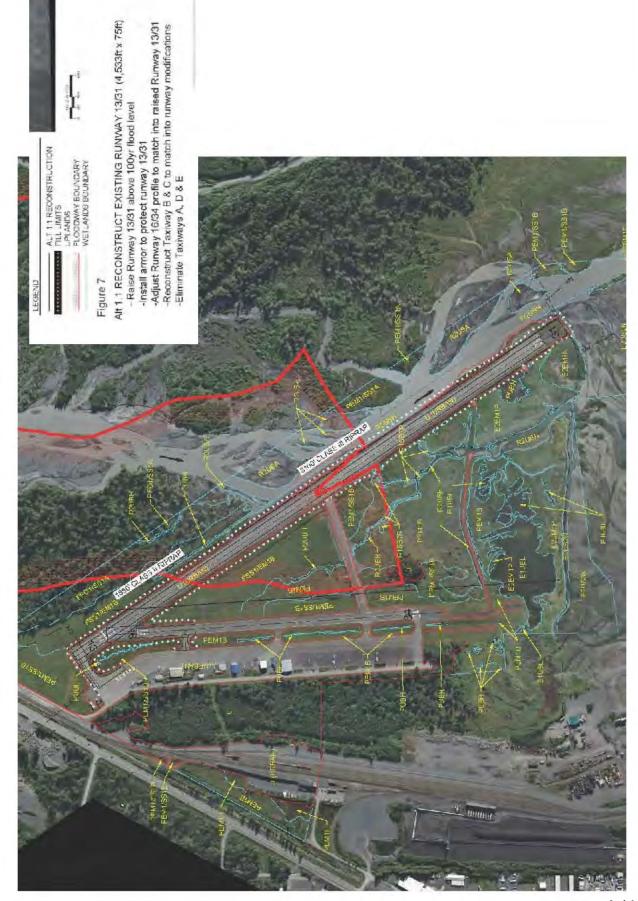






Environmental Considerations

- 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







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 < <u>Dwight.Perkins@fema.dhs.gov</u>>
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:

- 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?
- 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

<<u>Dwight.Perkins@fema.dhs.gov</u>>

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

Federal Emergency Management Agency (FEMA), Region 10 is committed to providing acces, 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 425-487-4675 or 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

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: 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

jimmy.smith@alaska.gov

Jackie C. Wilde

Community Development

Title: Planner

Phone: 907 224-4048 jwilde@cityofseward.net

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:** 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**

DATE: August 23, 2018

TO: Barbara Beaton

Project Manager

Aviation Design TELEPHONE NO: 269-0526

PROJECT NUMBER: **Z**548570000

PROJECT NAME: Seward Airport Improvements

Paul Janke, PhD, PE

Regional Hydrologist FEMA Policy on Water Surface FROM: SUBJECT:

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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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:
 - o shift RW east and raise it above the 100 year flood level with 2 feet of freeboard
 - o extend the length from the existing 2,289 feet to 3,300 feet
 - o 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.

2

- 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.

3

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



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

Scott Allen, Tribal Administrator Qutekcak Native Tribe P.O. Box 1467 Seward, AK 99664

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2

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- 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

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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

Angela Vanderpool, Executive Director Chugachmiut, Inc. 1840 Bragaw Street, Suite 110 Anchorage, Alaska 99508-3463

Dear Ms. Vanderpool:

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:
 - o shift RW east and raise it above the 100 year flood level with 2 feet of freeboard
 - o extend the length from the existing 2,289 feet to 3,300 feet
 - o 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.

A-164 2

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.
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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.

3

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



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

Willard Dunham, President Resurrection Bay Historical Society P.O. Box 55 Seward, AK 99664

Dear Mr. Dunham:

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.

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- 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:

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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

A-168 3



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

Mayor David Squires City of Seward P.O. Box 167 Seward, AK 99664

Dear Mayor Squires:

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.

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Preliminary Area of Potential Effect

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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.

3

Sincerely,

Michael T. Wanzenried Cultural Resources Specialist

Enclosures:

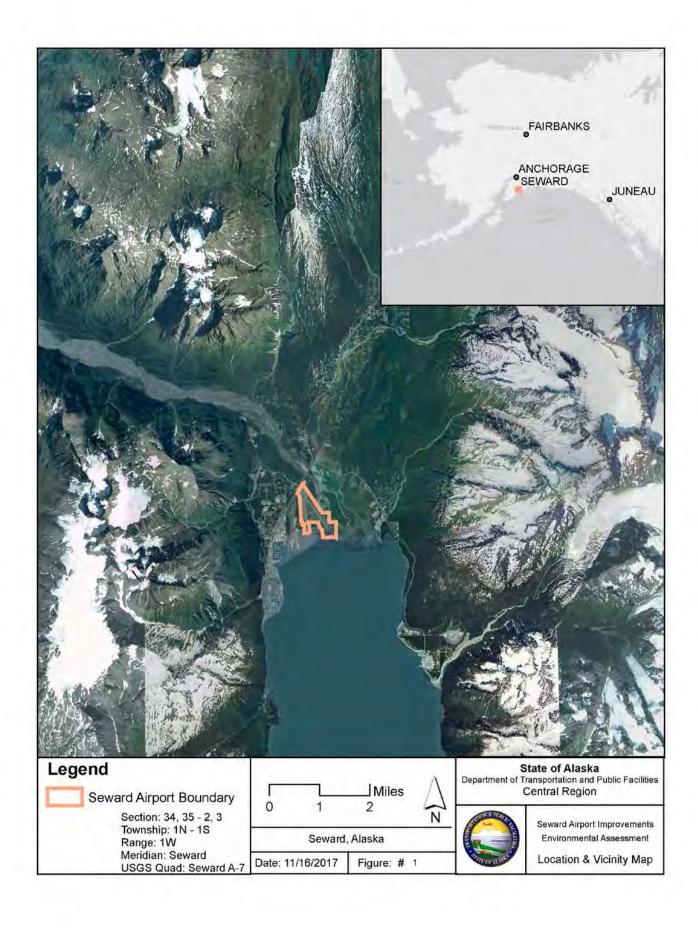
Figure 1 - Location and Vicinity Map

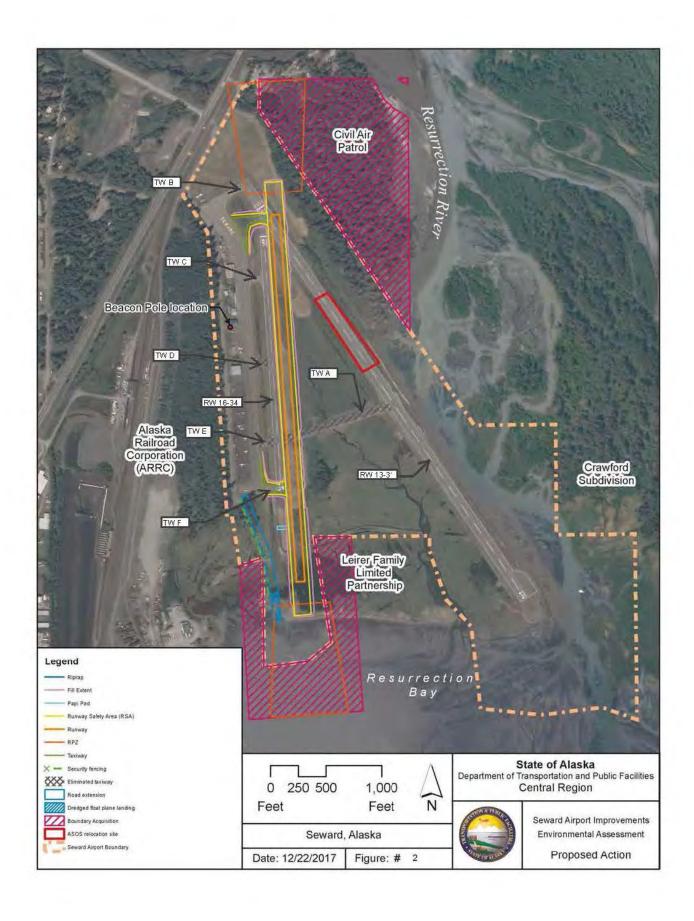
Figure 2 - Proposed Action

Figure 3 - Preliminary APE

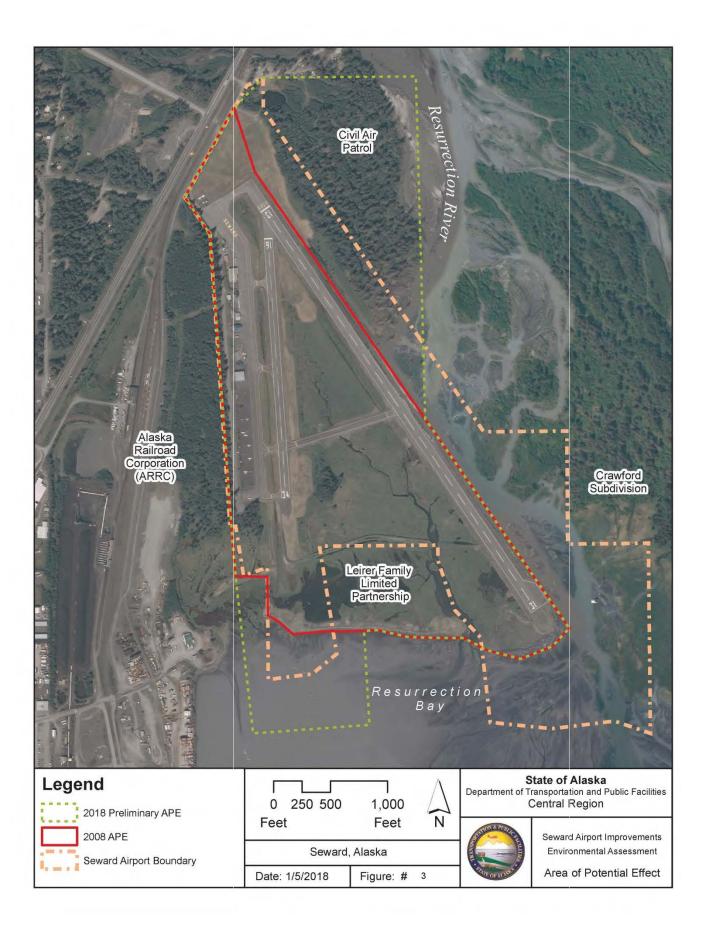
Electronic cc w/ enclosures:

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





5



 From:
 Rollins, Mark W (DNR)

 To:
 Wanzenried, Michael T (DOT)

Subject: Seward Airport Improvements, TBD/Z548570000, Consultation Initiation

Date: Wednesday, February 14, 2018 2:12:45 PM

3130-1R FAA

RevComp ID # 2018-00112

Hi Michael,

The Alaska State Historic Preservation Office (AK SHPO) received your correspondence (dated January 29, 2018) on January 30, 2018. Following our review of the documentation provided in the initiation letter, we have no objections to the proposed study area/ area of potential effect (APE). We recommend further background research into SEW-007 (Russian Trail) to determine if its historic location is indeed within the APE. We would also like to note that are records show that the cultural resources survey conducted in 2004 by Northern Land Use Research for the Seward Airport Master Plan did not discuss the history of the airport. We recommend researching the early era of airport construction for the Seward Airport. We look forward to receiving the results of the evaluation of the APE as well as FAA/ DOT&PF's findings for this undertaking and will respond with our concurrence and/or comments at that time.

Thank you for sending a Section 106 consultation initiation letter to our office. Please let me know if we can be of further assistance.

-Mark

Mark W. Rollins Archaeologist II Alaska State Historic Preservation Office/ Office of History and Archaeology 550 West 7th Avenue, Suite 1310 Anchorage, AK 99501

(907) 269-8722



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 No Historic Properties Affected **This finding contains two DOEs**

June 5, 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 project's Area of Potential Effect (APE) as described below.

The DOT&PF on behalf of FAA finds that no historic properties would be affected by the proposed project pursuant to 36 CFR 800.4(d)(1), implementing regulations of Section 106 of the National Historic Preservation Act. This submission provides documentation in support of this finding, as required at 36 CFR 800.11(d).

Project Description

The proposed project would (see attached Figure 2):

- Reconstruct Runway (RW) 16-34:
 - o shift RW east and raise it above the 100 year flood level with 2 feet of freeboard
 - o extend the length from the existing 2,289 feet to 3,300 feet
 - o Install armor rock to protect RW from flooding
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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 project 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.

Identification Efforts

A review of the Archaeology Heritagee Resource Survey (AHRS) on March 20, 2018 and the cultural resources surveys conducted by Northern Land Use Research, Inc. in 2004 and another by HDR in 2013 revealed six sites in the APE; one site (SEW-0007) was unevaluated for the National Register of Historic Places (NRHP), five were not eligible, and one (SEW-01625) was given a site number in April 2018 (Table 1). No historic properties were identified in the APE.

AHRS	Site Type	Year	NRHP Status
Number		Built	
SEW-00007	Trail	-	Unevaluated
SEW-00835	Seward Naval	1917	Not Eligible
	Radio Station		
SEW-01552	Collapsed hangar	-	Not Eligible
SEW-01553	Ecofact	-	Not Eligible
SEW-01554	Logged area	-	Not Eligible
SEW-01555	Road	1918	Not Eligible
SEW-01625	Airport	1927	Unevaluated

Table 1 Sites located in the Project APF

Determination of Eligibility

In response to initiation letters sent on January 29, 2018, the state historic preservation office (SHPO) recommended further background research into SEW-00007 (Russian Trail) and the Seward airport (SEW-01625). DOT&PF conducted determination of eligibilities for both sites.

Summary of the Seward Airport (SEW-01625) Determination of Eligiblity

The original Seward airport was built in 1927 as part of a larger effort by the territorial legislature to use airplanes to promote development and access throughout the state. The original Seward airfield was a 200x1200 foot-long runway carved out of a forested area at the head of Resurrection Bay near the Naval Radio Station (SEW-00835). Over the course of the last 80 years, the boundaries of the airport have been expanded and its facilities steadily improved to meet federal aviation specifications. DOT&PF has found that while the Seward airport has significance under Criterion A for the NRHP—for being among those first airfields built by the

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territorial government—its lack of integrity in terms of retaining physical characteristics that convey association with early airfields makes it not eligible for the NRHP. Please see attached documentation for further details.

Russian Trail (SEW-0007) Determination of Eligilibity

The possible existence of a Russian trail (SEW-0007) was described in Mary Barry's 1973 *A History of Mining on the Kenai Peninsula*. Barry does not provide a map for SEW-0007's alignment. Instead, she provides a general location based on correspondence with a local miner who noted that "a transportation route led from Kenai River to the south end of Kenai Lake, up Porcupine Creek to Lost Lake, down Lost Creek and over the flats to the Resurrection Bay shipyard near present-day Seward" (Barry 1973: 17). Email correspondence between DOT&PF and SHPO about the existence of SEW-00007 did not result in a better understanding of the site itself but did reveal there was a paper copy of the Seward quadrangle with a dashed line with a similar direction and length as the path of SEW-00007 on the AHRS online mapper.

Cultural resource surveys conducted in 2004 and 2013 at the Seward airport and the Alaska Railroad respectively, failed to identify any remnants of SEW-00007. Subsequent research by DOT&PF for the history of the Seward airport (SEW-01625) also failed to reveal any additional information regarding a documented Russian trail in the project area or even within the surrounding community. Aerial photos of the airport and neighboring railroad yard over the last 70 years document extensive ground disturbance that, supposing the existence of SEW-00007 in this location, would have destroyed any evidence for it within the project APE (Figures 4-8).

Because there are no physical attributes that support the existence of SEW-0007 in the project APE, in addition to the amount of ground disturbing activity in the neighboring Alaska railroad yard, DOT&PF finds that the segment of SEW-00007 from Port Avenue to the south shore of the Resurrection River north of the Seward airport as shown on the AHRS mapper is not eligible for listing to the NRHP.

The FAA agrees with DOT&PF's recommendation that SEW 01625, SEW-0007 are not eligible for the NRHP.

Findings of Effect

There are no historic properties located within the proposed project's APE. As such, DOT&PF has found, and requests your concurrence or comment, that there would be no affect to historic properties.

Consulting Parties

DOT&PF sent consultation initation letters on January 29, 2018 to the following parties: SHPO, City of Seward, Chugachmiut, Inc., Resurrection Bay Historical Society, and Qutekcak Native Tribe. The only party to respond was SHPO on February 14, 2018, with an email that there was no objection to the proposed APE and a recommendation to conduct further research into SEW-0007 (Russian Trail) and the history of the Seward airport.

Please direct your concurrence or comments to me at the address above, by telephone at 907-269-0535, or by e-mail at michael.wanzenried@alaska.gov.

Sincerely,

Michael T. Wanzenried Cultural Resources Specialist

Enclosures:

Figure 1 - Location and Vicinity Map

Figure 2 - Proposed Action Map

Figure 3 - Area of Potential Effects Map

Figure 4-8 Aerial photographs showing AHRS sites SEW-00007 and SEW-01625

Determination of eligibility for the Seward airport (SEW-01625)

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

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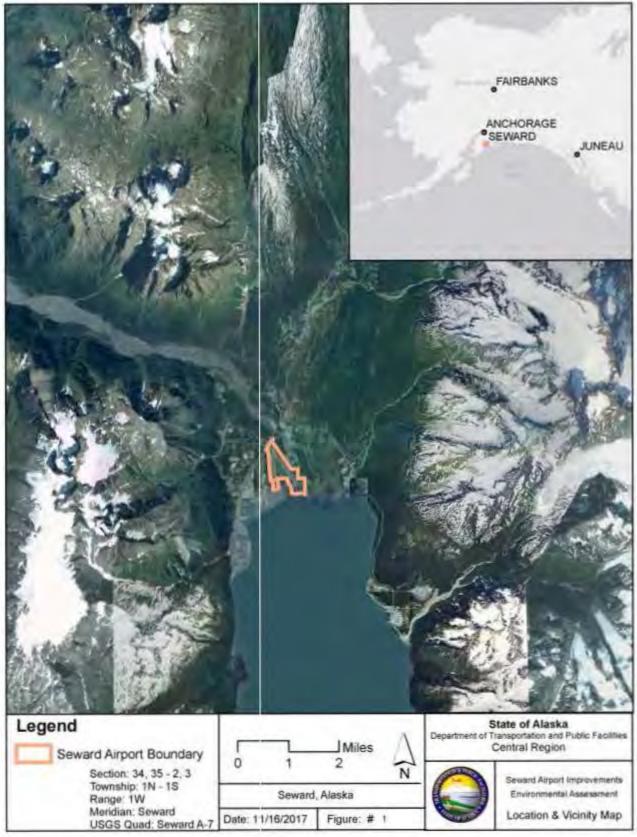


Figure 1. Loation and Vicinity Map

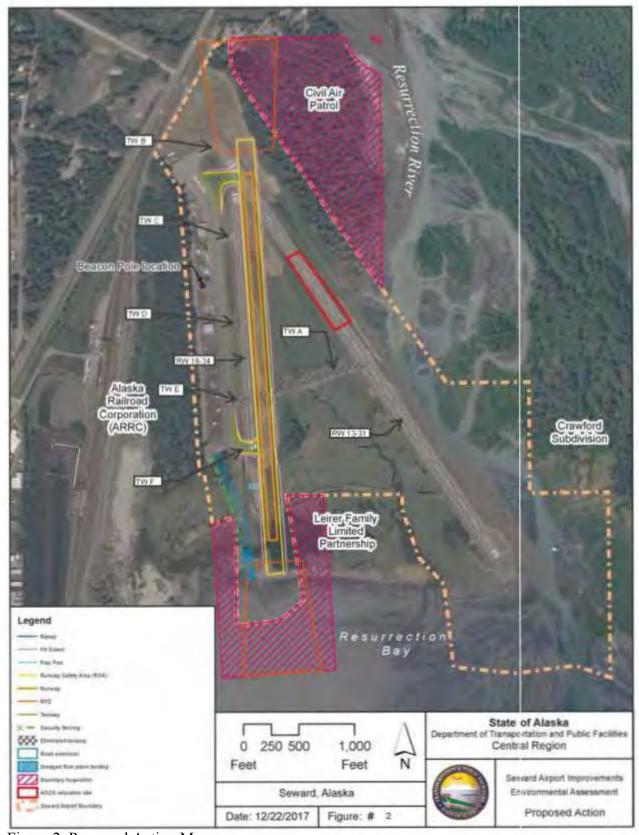


Figure 2. Proposed Action Map



Figure 3. Area of Potenail Effect Map

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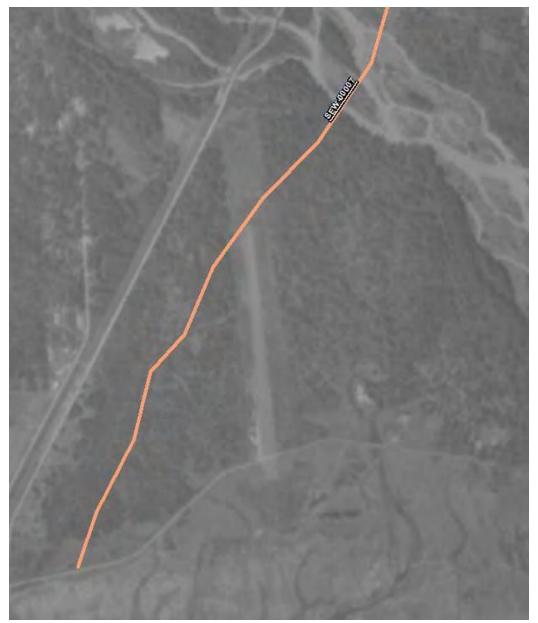


Figure 4. Aerial photograph from 1950 showing the AHRS location of SEW-00007 in relation to the Seward airport.



Figure 5. Aerial photograph from 1976 showing the AHRS location of SEW-00007 in relation to the Seward airport and the Alaska Railroad Yard.

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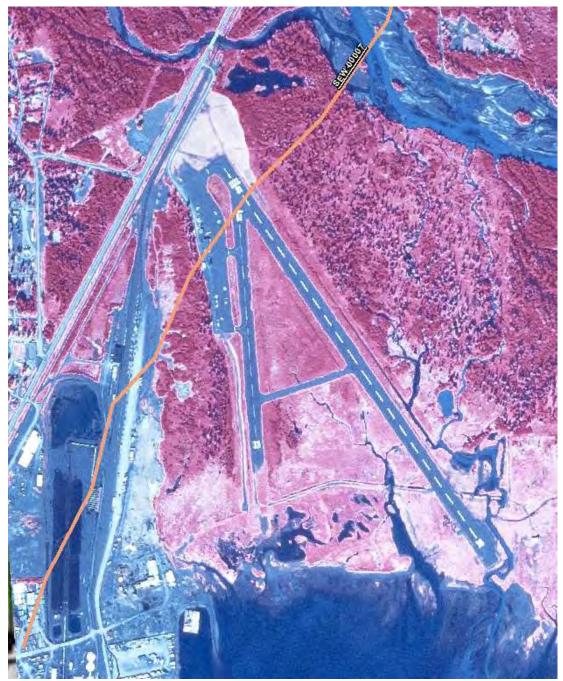


Figure 6. Aerial photograph from 1985 showing the AHRS location in relation to the Seward airport and the Alaska Railroad Yard.



Figure 7. Aerial photograph from 2011 showing the AHRS location of SEW-00007 in relation to the Seward airport and the Alaska Railroad Yard.



Figure 8. Aerial photograph from 2015 showing the AHRS location of SEW-0007 in relation to the Seward airport and the Alaska Railroad Yard.



Determination of Eligibility for the Seward Airport (SEW-01625), Seward, Alaska

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Executive Summary

This report provides the basis for the Department of Transportation and Public Facilities' (DOT&PF) finding that the Seward Airport (SEW-01625) is not eligible for the National Register of Historic Places (NRHP). This report was initiated by the Seward Airport Improvement Project (Z548570000) that proposes to reconstruct runway 16-34, close runway 13-31, remove taxiways A, D, and E, relocate taxiway B, reconstruct taxiway F, among other actions. DOT&PF found that the original Seward airfield could be considered for listing to the NRHP under Criterion A for being among those airfields constructed by the territorial government starting in 1925 to promote economic development and improve access to rural areas. However, modifications to the Seward airport over the last 90 years has compromised the integrity of historic physical traits of the original airfield, which makes the Seward airport not eligible for listing to the NRHP.

Seward Airport Determination of Eligibility Study Area

The Seward airport is located on approximately 302 acres at the head of Resurrection Bay, approximately three miles north of the City of Seward's downtown core (Sections 34 & 35 of T01N, R01W and Sections 2 & 3 of T01S, R01W, Seward Meridian; USGS Quadrangle Seward A-7 SW) (Figure 1). The airport is classified as a Local Airport in the 1996 Alaska Aviation System Plan Update (AASP2). A Local Airport "serves as secondary access to a community served by another mode as primary access, or a recreational or emergency airstrip." Seward is connected to the rest of Alaska by railroad, highway, air, and water. Air travel to Seward has never been profitable for regular passenger service. Currently, the Seward Airport consists of two paved runways, a large paved apron, and six taxiways (A-F) and is primarily utilized by small, single engine, A-I aircraft (though the primary runway was designed to meet B-II design standards) (Figure 2). The most frequent users of the airport are Civil Air Patrol, tour operators, and private pilots.

Summary Overview of Airport Use and Modifications

Seward airport's first runway was built between 1927 and 1928. It consisted of a single 200x1200 foot runway. Between 1929 and 1930, the airport was expanded and featured two runways, forming an L shape, with a north-south landing strip measuring 200x1400 feet and an east-west landing strip measuring 200x1200 feet. By 1950, improvements to the airfield had combined the two into a single 2800 feet long runway (today's runway 16-34). An additional runway (today's runway 13-31¹) was built in 1952 and measured 3800 feet in length on a northwest-southeast axis.

In 1962, a small apron was built on the north end of the airfield, both runways were compacted, and the current entrance to the Seward Highway was built. The Airport suffered minor damage in the 1964 Good Friday earthquake, and repairs made by the United States Army Corps of Engineers included reestablishing the runway, apron, and taxiway grades above the high-tide elevation.

1975 was the year the airport received its contemporary appearance after a surfacing and marking project updated the compacted gravel of both runways, taxiways A – D, and the parking apron with a

¹ By Federal Aviation Administration rules, runways are numbered according to the points on a compass, from 1-36, reflecting the magnetic compass reading. As the earth's magnetic field changes, the FAA requires runways to be renumbered. Although as built drawings and photographs from different years show different numbering conventions for the runways, this report will use the convention from the 2008 Airport Layout Plan on Figure 2.

https://www.ncei.noaa.gov/news/airport-runway-names-shift-magnetic-field

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rebuilt sub-surface that was resurfaced with bituminous prime coat and runway markings. In 1983, both runways and the apron were reconstructed by DOT&PF and medium intensity taxiway lights and taxiway markings were added. The 1983 project also included construction of the existing sand storage building.

Between 1990 and 1991, DOT&PF leased approximately 7.6 acres from the ARRC along the west side of the airport to add lease lots and storage areas on the general aviation apron. The apron and access road were subsequently expanded towards the south in 1991. An erosion control project was completed along the east side of Runway 12-30 (today's runway 13-31) in 1995. Currently, the airport features a number of structures including several tour offices, a large commercial hangar, a DOT&PF maintenance building and sand shed, lighting vaults, and weather stations (Figure 3). None of these buildings are over fifty years of age.

Cultural Chronology of Seward

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Relying primarily on Mary Barry's *History of the Gateway City volumes I-III*, Seward's history has been divided into six periods: Human Use and Occupation of the Seward Area Before 1792; Russian Contact (1792-1860); The Lowell Family and the Founding of Seward (1883-1919); Seward Between Wars (1940-1965); Seward's Wartime Growth (1940-1965); Modern Seward (1964-1990).

Human Use and Occupation of the Seward Area Before 1792

For thousands of years prior to the founding of Seward, people made a home among the fjords, inland rivers, and mountains of the Pacific coast of the Kenai Peninsula. Although archaeological sites with tool assemblages morphologically similar to the early Holocene (~10,000-7,500 years ago) have been identified in the upper Cook Inlet, the archaeological record of the southern Kenai Peninsula provides evidence of human occupation region for approximately 7,000 years when people started living along the rocky coastline along today's Kenai Fjords National Park (Clark 1984: 136-137). The earliest cultural manifestations include those related to the Takli Alder and Ocean Bay (7,000 to 4,800 years ago); Takli Birch, Ocean Bay II, and Kachemak I and II (4,800 to 2,800 years ago); Takli Cottonwood and Kachemak III (1,800 to 600 years ago); and Historic Kenai Eskimo (600 years ago to present). These were followed by the Dena'ina, Alutiiq, and Chugamiut (Workman 1998). Archaeological sites related to these traditions have not been documented in the immediate vicinity of Seward and tend to occur further inland near Kenai Lake, throughout the Kenai River drainage, and along the coast.

Russian Contact (1792-1860)

The first non-native peoples to set foot on shore and explore the Seward environs were most likely associated with the Russian American Fur Company when it selected the head of Resurrection Bay to build a ship building yard and fort—named Fort Voskresenkii—between 1792 and 1793 (Brue 2004: 39; Cook and Norris 1998: 45-53; Trepal 2013: 12-13). The decision to use Resurrection Bay was driven more by the necessity to secure locations close to coastal hunting grounds and block the expansion of the Lebedev-Lastochkin Company than for access to adequate building materials (Cook and Norris 1998: 44-52). The early days of the fort consisted of as many as 150 Russian men living and working in this area—a workforce often supplemented with Native labor as the conditions at the fort deteriorated and led to a mutinous uprising (Cook and Norris 1998: 49). The persistent lack of building supplies and decimated sea otter populations made Fort Voskrensenkii economic viability uncertain, and in 1818 the fort's status was downgraded to that of a trade outpost. As noted in an April 10, 1818, memo of the Russian American Company, it was recommended to transfer all the Russians and prisoners to Iliamna, reduce

the size of the encampment, and leave one or two Aleut families as managers of the outpost (Pierce 1984: 79). It is unclear when the final abandonment of Fort Voskrensenkii occurred though it was likely fully abandoned sometime in the mid-1800s (Cook and Norris 1995: 55).

The Lowell Family and the Founding of Seward (1883-1919)

Following the Russian departure from Resurrection Bay, the next reported permanent residents were Mary and Frank Lowell who moved there from English Bay sometime between 1883 and 1884 (Barry 1986: 24; Cook and Norris 1998: 71). In the vicinity of the current-day SeaLife Center, steamships would anchor close to shore to pick up furs and drop off mail, people, and supplies—effectively turning the Lowell home on Resurrection Bay into an outpost between the continental United States and mining claims on Turnagain Arm (Barry 1986: 24; Cook and Norris 1998: 71; Trepal 2013: 13). Although Frank abandoned his family in 1893, Mary and her children continued living in Resurrection Bay. By 1900, members of the Lowell family constituted all of the four households in Resurrection Bay and reportedly also had small garden plots and staked mining claims in the area (Barry 1986: 27, 33).

The U.S. Government ordered the first formal surveys of the corridor from Seward to the north in order to gather information on trails and portages that could be used to support military and mining interests further to the north (Cook and Norris 1998: 13). In 1898 Lieutenant H.G. Learnard of the 14th Infantry, geologist Thomas Mendenhall, and a civilian named Bagg surveyed a route from the head of Resurrection Bay near present day Seward to the Matanuska Valley—a trip that required following paths already cut by prospectors through the Salmon Creek Drainage to the Snow River and on to the mining communities of Hope and Sunrise (Bureau of Recreation (BOR) 1977: 23; Cook and Norris 1998: 13; Mendenhall 1899: 275). This survey expedition highlighted the practicality of this route to facilitate the development of mining and agricultural opportunities throughout the region (Barry 1986:33). By 1900, people began arriving into the area in increasing numbers and used pack trains and dog sled teams to move supplies from Resurrection Bay to mining districts throughout the Cook Inlet region (BOR 1977: 25).

In May of 1903, Mary Lowell's daughter, Eva, married and lived with Harry Revell who had a 320 acre homestead at the head of Resurrection Bay with a small cabin, log stable, and garden (Barry 1986: 30). Part of this homestead became the location for the future airport although no evidence for the buildings have been identified (Kriz and Williams 2005: NP). For several years, Revell had the contract to carry the mail by dogteam from Seward to surrounding mining towns of Sunrise and Hope and provided guide services for railroad officials and visitors to the area (Barry 1986: 30). In 1903 and 1904, he guided John and Frank Ballaine and W.B. Poland of the Central Railroad Company along the route surveyed for railroad construction. When Harry and Eva needed to build a house in Seward to help manage Eva's failing health in 1906, Revell arranged for Charles Christensen to live at and improve on his homestead claim (Barry 1986: 30). After he and Mary divorced in 1917, Revell arranged to sell parts of his homestead—some of which would later be integrated into part of the Seward airport.

The actual founding of Seward was a result of businessmen and brothers John and Frank Ballaine's ambition to capitalize on the potential to connect an ice free deep sea port to Alaska's interior communities and mining districts via railroad. They organized the Alaska Central Railway Company and used existing government surveys as well as their own research to identify Resurrection Bay as the most ideal location to build a town and railroad (Barry 1986: 34-36). Following their initial 1902 surveys to Cook Inlet, the Alaska Central Railway Company purchased much of Seward's current-day waterfront

from Mary Lowell for \$4,000 and thirty-seven townlots (Barry 1986: 27). With an additional 160 acres obtained through John Ballaine's Soldier's Additional Homestead Scrip, the foundation for the town of Seward took shape (Barry 1986: 36).

The contrived nature of the town by the Ballaine brothers allowed Seward to prosper without going through the spasms of uncontrolled growth that accompanied most boom towns. Having the financial backing of investors meant that when John Ballaine set sail to build the first buildings at the Seward townsite in August 1903 he was well prepared and had twenty-five employees, draft animals, a pile driver, saw mill, and provisions for the initial construction of the town (Barry 1986: 37-38). Within a few years of its founding, Seward had a dock, water system, electricity, telephone service, banks, and a three-story brick building that housed the headquarters of the Alaska Central Railway Company (Barry 1986: 56-57). One issue that slowed Seward's growth for decades was how inadequate housing and a lack of year-round jobs forced people south for the winter (Barry 1986: 55-61).

Construction of the railroad proceeded in fits and starts. Between 1904 and 1905 nearly 45 miles of track was laid; after which, funding issues and difficult terrain slowed construction considerably and by 1909 a total of 71.5 miles of track had been completed (Cook and Norris 1998: 84). In addition to these problems, the withdrawal of coal lands from public entry in 1907 undermined the economic surety behind the Ballaine venture and in 1911 the Alaska Railroad Company was sold and re-organized into the Alaska Northern Railroad Company (Barry 1986: 66-71; Cook and Norris 1995: 86-87). Unwilling to invest much to upgrade or maintain its property, the Alaskan Northern Railroad went on to experience profound economic failure (Cook and Norris 1998: 85). The loss of revenue from railroad construction led to an economic decline in Seward as many of the activities associated with the railroad made up the economic foundation for many of Seward's businesses (Cook and Norris 1998: 85). In 1915, the Alaska Engineering Commission recommended that the government purchase the bankrupt Alaska Northern Railroad to secure a link between the Matanuska Valley and an ice free port (Cook and Norris 1998: 86-87). Headquarters for the Alaska Railroad moved from Seward to Anchorage in 1917, initiating an economic downturn that was exacerbated by WWI (City of Seward 2017: 15).

Seward Between Wars (1919-1940)

The United States' entry into WWI in 1919 impacted statewide and local economies through rationing and the loss of available work force, which slowed the development of roads, mining operations, railroads, and farms (Seward Historic Preservation Plan (SHPP) 2017: 15; Johnson and Stanton 1955). Despite this, work on the railroad and local roads continued and provided seasonal work for local men. The growth many Sewardites hoped would accompany the government takeover and the eventual completion of the railroad in 1921 did not materialize in terms of the number of new residents, which only increased from 652 to 949 between 1920 and 1940 (Barry 1995: 15). Increased freight and tourism from both railway and shipping lines created a local economic driver that has continued through the depression era to the present. During the period from 1923 to 1940 Seward's tourist economy gradually coalesced around a downtown core that began to feature restaurants and souvenir shops as well as new facilities built on the wharf to support the fuel and repair needs of ships and railroad yards (Barry 1995: 92-119).

The early 1920 was also a time when the use of aircraft in Alaska provided easier access to remote communities and played a significant role in the development of the state (Municipality of Anchorage ND). One of the first pilots to offer commercial freight and passenger service in Alaska was Roy Jones

who had flights between Seattle and Ketchikan using a military surplus flying boat in 1922. Between 1924 and 1926, regular service airlines for freight and passengers emerged out of Fairbanks and Anchorage, as well as some of the first experimental airmail flights between Fairbanks and McGrath (Alaska Humanities Forum 2018). The Alaska Territorial legislature allocated \$40,000 in 1925 for the Alaska Road Commission (ARC) to begin building airfields throughout Alaska (Alaska History 2018). In 1927 alone, the Alaska Road Commission (ARC) built over 30 airfields across Alaska (ARC 1928). ARC constructed a primitive 200 by 1000 foot-long airfield at the head of Resurrection Bay in Seward. A few small companies in Seward provided infrequent freight and passenger service from Seward to local landmarks, other Alaskan communities, and mining districts. A range of factors like cost, geography, and competition with the railroad limited the potential of flight out of Seward—especially when compared to the rapid development of airfields in Anchorage and Fairbanks (see Timeline of Aviation and Airport Improvements in Seward below for more detailed discussion of flight in Seward).

Although Seward's position at the head of Resurrection Bay near the railroad and docks made it seem like a prime location for fish canning operations, overfishing led to sporadic economic returns and fish plants scaled back operations during this time (City of Seward 2017: 18). Through the 1940s, the halibut and cod industries of Alaska declined.

Seward's Wartime Growth (1940-1964)

Seward's relatively small maritime industry expanded rapidly after 1940 when construction supplies related to military fortifications for other parts of Alaska arrived in Seward's port (Barry 1995: 150). The increase in shipping traffic prompted construction work on Seward's waterfront. Barry quotes John Paulsteiner who described Seward as the stronghold of the whole Pacific north of Seattle with freight arriving from Seattle, Portland, San Francisco, and Russia (Barry 1995: 151). Hundreds of planes were shipped through Seward to be assembled in Fairbanks before being flown to Russia via Nome. Paulsteiner estimated the number of dockworkers increased from 30 to 165 men who worked in shifts around the clock (Barry 1995: 151).

On June 30, 1941, Seward's first garrison of 25 officers and 677 soldiers arrived and assisted with erecting the camp site at the northern end of Seward near the Jesse Lee Home that would become Fort Raymond (Barry 1995: 152). Their duties included dynamiting and leveling ground for barracks and facilities at Fort Raymond in preparation for the arrival of several thousand more soldiers who would help build and man military fortifications throughout Resurrection Bay to protect the port from enemy attack (Barry 1995: 153-159).

While shipping through Seward increased exponentially during World War II, constant use of the rails severely degraded their overall utility and, by the end of the war, there was discussion to discontinue the Seward to Portage section of the railroad (Barry 1995: 190). Compounding this problem was the unintended consequence of the military integrating a second deep water port at Whittier into the Alaskan rail system. Attempts by Sewardites to fight the discontinuation of the Seward line were partially successful: funds to upgrade the railway were received in 1945 but the Seward line remained a low priority of Alaska Railroad officials who steered most of the freight traffic from Anchorage to Whittier (Barry 1995: 190, 328).

Although military involvement in Alaska after World War II still contributed to Seward's overall economy, the loss of Fort Raymond and construction-related activities for the war plus increased

competition from a new port in Whittier and a port and airfreight services in Anchorage caused an economic downturn starting in the mid-1950s (Barry 1995: 226). This continued with varying degrees of intensity until the 1964 Earthquake Seward's economic stability came to depend on its burgeoning fish-packing industry and upgrades to its port facilities helped attract new shipping businesses while simultaneously elevating its identify as a sightseeing destination (Barry 1995:210-212, 270-271). The opening of the Seward Highway between Seward and Anchorage in 1951 provided new opportunities for people to travel through the area, ship goods, and recreate and led to a minor population boom. Seward's population rose to 2,114 from 949 between 1940 and 1950 but dropped to 1,891 by 1960.

Modern Seward (1964-1993)

The earthquake and tsunami that struck Alaska on March 27, 1964, caused widespread destruction throughout Seward. A large portion of the ground that supported the wharf and dock facilities broke from the mainland and slid into Resurrection Bay, spilling and igniting thousands of gallons of oil and fuel into the water; additional infrastructure related to the railroad and highway were severely damaged first by tremors and subsidence then the series of massive seismic waves that swept far inland; 86 buildings were totally destroyed and 269 were heavily damaged (Lemke 1967: E1). Because of the damage caused to the roads and railroad, relief supplies began arriving into the minimally-damaged Seward airport within a day of the earthquake and continued for several weeks until repairs to other transportation networks could be made (Eckel 1967; Lemke 1967: E24).

Despite the property losses experienced by many people and businesses in Seward, reconstruction of the dock facilities, railroad yards, roads, airport, utilities, and housing market provided a lifeline to the overall viability of its primary economic drivers. However, improvements to infrastructure were not accompanied by any substantial diversification or amplification in local industries: dock upgrades allowed Seward to become a base for the Alaska Marine Highway System in addition to the recovering fish-processing industry, which provided much of Seward's economic stability for the 1970s (Barry 1995: 360).

Increased shipping demands for materials to build the Trans-Alaska oil pipeline increased shipping through Seward and 1975 was the first year since 1954 cargo tonnage shipped through Seward since 1954 (Barry 1995: 297). Tonnage through the port of Seward increased by over 300% between 1970 and 1980 and spurred a building boom with the Spring Creek Correctional Facility, the remodel of the Alaska Vocational Technical Center and an expanded industrial park as examples of some of the larger projects (Barry 1995: 360-362). However, when oil prices fell in 1986, these construction projects plus increased freight service by the Alaska Railroad (with regular passenger service on Saturdays between Seward and Anchorage) helped buffer the local economy (Barry 1995: 328, 360-361). The establishment of Kenai Fjords National Park in 1978 and the immense popularity of the railroad passenger service among tourists quickly led to daily trips during the summer, which effectively started Seward's contemporary identity as a well-known and easily-accessed tourist destination (Barry 1995: 329; City of Seward 2017: 22).

Timeline of Aviation and Airport Improvements in Seward (1922-1991) 1922-1940

After World War I, people began experimenting with using aircraft to aid in the transport of freight and people across Alaska. Initially, pilots used floatplanes and tide flats for places to land before roughing

out primitive airfields (Alaska History 2018). With long distance flights becoming more possible after 1920, many Sewardites saw the potential for aircraft to replace dogsleds in carrying mail and freight (Barry 1993: 206). A *Gateway* editor encouraged people in October 1922 to contact government officials to set up airmail service and an airfield (Barry 1993: 206). In 1923, the owner of the Farthest-North Airplane Company, Carl Ben Eielson, visited Seward and identified a suitable landing spot near the Naval Radio Station at the head of Resurrection Bay (Barry 1993: 207).

The first airplanes that landed in Seward were two Curtiss F Model seaplanes flown by Russell Merrill and Roy J. Davis who landed there in August 1925 and offered \$10 rides to locals (Barry 1993: 210). The Alaska Territorial legislature allocated \$40,000 in 1925 for the Alaska Road Commission (ARC) to build airfields throughout Alaska (Alaska History 2018). In 1927, Merrill made flights to map out small landing fields for the Alaska Road Commission at places like Eklutna Lake, Tustemena Lake, Seldovia, Curry, and Seward (Alaska History ND). Later that year, the ARC in cooperation with the City of Seward scraped out a 200 by 1000 feet airfield one mile north of Seward on the grounds of the naval radio station (ARC 1928: 65; Barry 1993: 210; Cook and Norris 1998: 103). In 1927, over 30 airfields were built at locations across the state (ARC 1928). On May 9, 1928, Russell Merrill returned to Seward and was the first aviator to land at the airfield (Barry 1993: 211).

A September 7, 1929, article from *the Gateway* reported that a local businessman, Harry Hoben, donated 12 acres of land north of Radio Station Road for enlarging the airport, which was cleared of trees and leveled by ARC and the City of Seward. Construction concluded in spring 1930 and the improved airstrip had an L shape with a north-south landing strip measuring 200x1400 feet and an east-west landing strip measuring 200x1200 feet (ARC 1930: 63; Gateway Oct 30 1929) (Figure 4).

1931-1940

The first pilot to land at the improved Seward airfield was Harvey Barnhill of Pacific International Airways (PIA) on March 2, 1931 (Gateway March 3, 1931). In exchange for PIA making Seward its headquarters, the city raised funds, cleared more land, and finished constructing a hangar by February 6, 1932 (Figure 5). Shortly thereafter, Barnhill left Alaska for Africa and PIA was renamed McGee Airways after the second partner of the company—Mac McGee. In the first few years of the Seward airport's history, McGee Airways, Alaskan Airways, Northern Air Transport, two separate companies by the name of Seward Airways, as well as independent pilots used the airfield to take people on flights to communities throughout Alaska in addition to short sightseeing flights over local landmarks (Barry 1993:214-216; Cook and Norris 1998: 104). None of these resulted in a permanent operation (Barry 1993: 216). Part of this was due to the cost of flying, which was prohibitively expensive for most people, and regularly scheduled flights to and from the Kenai Peninsula did not occur until after World War II (Cook and Norris 1998: 104).

In 1933 volunteer Sewardites tripled the size of the airfield by blowing up stumps and using caterpillar tractors and scrapers (Barry 1993: 215). Seward's inclusion on a list of appropriations approved by Congress in 1935 provided funds to extend the runway to the beach (Barry 1993: 215). Later in the same year, the city council returned the land Harry Hoben had donated in 1929; Hoben then donated to the territory three times the original amount for the construction of a larger airfield in the future (Barry 1993: 215). Henry Leirer also donated eight adjoining acres of land to the airport (Barry 1993: 215).

1940-1964

In response to Germany's invasion of Scandinavian countries in the spring of 1940, the Civil Aeronautics Authority (CAA) provided resources to build and improve airfields throughout the state of Alaska. Some of these improvements went towards improving the Seward airfield to accommodate military aircraft, which was later repeated by the military during the construction of Fort Raymond and other military installations throughout Resurrection Bay (Barry 1986: 153; Barry 1993: 216) (Figure 6).

Between 1945 and 1949, Kenai Air Service, Safeway Airlines, and Alaska Airlines offered flights that connected Seward to the rest of the Kenai Peninsula and other points in Alaska (Cook and Norris: 1998: 104). Although the use of aircraft to carry mail and freight continued, air travel by locals was limited due to the cost of tickets and the ability of people to take the train (and later road) to Anchorage—both of which hampered the economic potential of using aircraft from Seward.

An aerial photo from 1950 shows that people were using Radio Station Road to get to the airport and that airplane parking and storage occurred at the southern end of runway 16-34 (figure 7). This pattern was consistent up through 1966 when Radio Station Road was finally closed to public access due to how flooding from high tides compromised its structural integrity (DOT&PF Progress Report 1966). Figure 7 also shows that at some point the two runways had been merged into one. A 1950-1951 publication by the CAA described the Seward airport as having a single 2800-3000 foot-long runway made of loose gravel with limited local services and storage (CAA 1950: 22).

After CAA hearings in 1950, Christensen Air Service had a scheduled run between Anchorage and Seward; likewise, Safeway Airlines received a three-year exemption for non-scheduled flights (Barry 1995: 247). Cordova Air Lines purchased Christensen Air Service in July 1952.

The second runway (today's 13-31) was built in 1952 and measured 3800 feet in length on a northwest-southeast axis (Barry 1995: 247). Internal memos housed in DOT&PF archives that date to 1961 indicate this became the primary runway. Runway 16-34 was also extended 600' to the north and connected with runway 13-31 (DOT&PF 1961). Based on an aerial photo from 1961, it appears likely that taxiway A, the strip connecting both runways, was built at this time—likely to shorten the distance pilots had to taxi from the parking area to the primary runway (Figure 8).

In 1962, a new parking apron was established on the northern end of runway 16-34 (Figure 9-10). The entire strip along the west side of Runway 16-34 was then used for aircraft parking and storage. This project also built an access road that connected the new apron to the southern section of the airfield, extended Runway 16-34 past Radio Station Road, and established today's taxiways B, C, and D on the new apron.

Between 1961 and 1962, the Seward airport housed the Seward Composite Squadron of the Civil Air Patrol, which received a grant in 1964 to cover the costs of a new plane, communications system, hangar, and office space (Barry 1995: 264, 289).

1964 – Current Day

In a review of damages to the Seward Airport after the 1964 earthquake and tsunami, the National Research Council (NRC) in 1973 described the airport as having two gravel runways, a gravel-surfaced parking apron, and several private aircraft shelters adjacent these facilities (NRC 1973: 1017). The airfield sustained little damage with some fissuring. The majority of the fissures occurred on the north end of the airfield and few of the cracks were more than 6" wide (NRC 1973: 1017). As part of its

reconstruction duties, the Army Corps of Engineers (ACOE) re-established the runway, apron, and taxiway grades above the high-tide elevation with additional modifications made to the drainage system (NRC 1973: 1017). As built drawings of the work conducted by the ACOE show that approximately 900 feet at the southern end of runway 13-31 was not reconstructed at that time and that a Condor Air hut and tool shed in the northwest corner of the parking apron were the only (depicted) buildings (Figure 1965 as built from 1970). The ACOE also installed runway lights along both runways and taxiways (Figures 1 & 2 from 1970).

A project in 1966 extended Runway 16-34 an additional 950 feet to its current position with its southern terminus just opposite the remains of the Seward Naval Radio Station (SEW-00835) and re-compacted each runway and all the taxiways (Figure 11, 13). After 1966, access to the airport on Radio Station Road was cut off and storage and hangar facilities were shifted to the parking apron built in 1962 on the northern end of the airfield (Figure 12).

In July 1975 a surfacing and marking project with the Airport Development Aid Program (Project # 8-02-0259-01) surfaced both runways, taxiways A – D, and the parking apron for the first time with bituminous prime coat, repainted runway and taxiway markings, and installed medium intensity marker lights along Runway 16-34 (Figures 14-19). The only structures shown on the as built drawings for the airport at this time include an old hangar near Taxiway A and an unlabeled building, the current DOT&PF maintenance shed, approximately opposite the northwest tip of the depressed island between Taxiway C and D. The southern end of Runway 16-34 that the ACOE did not rehabilitate in 1965 was reestablished and surfaced during this project.

In 1983, DOT&PF initiated a runway resurfacing project (project #D39622) that resurfaced the runways, taxiways, and apron with bituminous sealcoat (Figure 20). In addition to this, runway and taxiway markings were repainted, tie down anchors installed on the southern section of the apron, and a sand storage shed was built in front of the DOT&PF maintenance building (the same unlabeled building from 1975) near Taxiway C.

In 1991, DOT&PF initiated an apron expansion project (project #58156) that increased the western boundary of the airport, extended the apron built in 1962 to the south by 1100 feet to its current extent, created Taxiways E and F, and created new lease lots 5-9 (Figure 2, Figure 21). In addition to extending the access road along the western edge of the apron to its current terminus past Taxiway F, DOT&PF also installed the existing flood lights and chain link fence along the western edge of the new apron extension.

In 1995, DOT&PF initiated an erosion control project (project #5129) that replaced culverts on runway 13-31 and taxiway A in addition to placing riprap along the east side of runway 13-31 to prevent further erosion from the Resurrection River (Figure 22).

Currently, there are 12 primary structures on lease lots 1a-9 that consist of trailers, hangars, and commercial tour guide offices with an array of storage sheds, fuel tanks, surface weather station, and regulator buildings (Figure 3). The oldest of these structures include the DOT&PF snow removal equipment building (SREB) and sand shed on Lot 3 (Figure 23). The former was built between 1971 and 1973. It consists of a prefabricated corrugated metal-sheathed structure with roll-up doors on its south and north elevations. It was not featured on as built drawings or archival photos from 1970 but appeared in a DOT&PF archival photo from 1973. The sand shed was built by DOT&PF in 1983. It consists

of a simple 16x42x15 foot structure of post and board construction with a slightly pitched roof. Both buildings are scheduled to be replaced in 2019.

Evaluation of Significance

Criterion A

Properties may be eligible for the NRHP if they are associated with events that have made a significant contribution to the broad patterns of our history

Over the course of the 20th and 21st centuries, the airport at Seward has expanded from a primitive single runway carved out of the floodplain at the head of Resurrection Bay to a paved airstrip used primarily by medevac flights and tour operators. Although the airport has not played a significant role in historic events and processes that shaped early or later Seward and surrounding areas, it was among one of many airfields built with funds provided by the Territorial legislature during the late 1920s throughout Alaska. Its construction was part of a larger project intended to use aviation to expand economic opportunities throughout the state. For that reason, the airport at Seward is significant under criterion A at the state level for its association with early aviation history in-between world wars (1919-1940).

Criterion B

Properties may be eligible for the NRHP if they are associated with the lives of significant persons in our past

Initial construction of the airport at Seward was the collaborative result of efforts by newspaper editors, local business people like Harry Hoben, and pioneering bush pilots like Carl Eielson and Russell Merrill. However, none of these people's lives or others were intractably linked to the founding or continuation of the Seward airport. For example, although Eielson consulted on location and Merrill was among the first to land at the Seward airport, such occasions were common for them given their early participation in flight throughout Alaska (and the arctic)—and what was for Merrill effectively a part of his job. According to the NRHP nomination form for Hoben Park (SEW-00662), Harry Hoben, prominent businessman and former mayor of Seward, is more closely associated with his ownership of the local newspaper, being a partner in the Alaska Transfer Company, and overseeing maintenance of the eponymous park between 1923 and 1948, among other things. As there is no documentation that shows how the Seward airport illustrates these or another person's important achievements, it is not significant under Criterion B.

Criterion C

Properties may be eligible for the NRHP if they embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction

The Seward airport has undergone profound changes over the last century. Its current appearance with paved surfaces, electric landing lights, striping, and array of modern safety features was first established in 1975 and has been updated since in accordance with Federal Aviation Agency guidelines for airport design and engineering standards. Because the Seward airport's method of construction, like most small airports in Alaska, embodies federal requirements, it does not represent a unique style of design or construction. Additionally, it does not represent the work of a master, possess high artistic value, or

serve as a significant or distinguishable entity among Alaskan airports. As such, the Seward airport is not significant under Criterion C.

Criterion D

Properties may be eligible for the NRHP if they have yielded, or may be likely to yield, information important in prehistory or history.

The Seward airport lacks both a built environment and history of human activity where future archaeologists or historians could hope to conduct research in order to better understand the history of aviation in Seward. The airport currently lacks historic buildings and does not have a history that would indicate significant subsurface deposits would have been created. For these reasons, the Seward airport is not eligible for the NRHP under Criterion D.

Evaluation of Integrity

To be listed in the National Register of Historic Places, a property must not only be shown to be significant under the National Register criteria, but it also must have integrity; a property must possess several, and usually most, of the aspects of integrity that include: location, design, setting, materials, workmanship, feeling, and association (National Park Service 2002).

The Seward airport's potential to be listed to the National Register of Historic Places is based on its significance under Criterion A for its association with early aviation history in Alaska from 1927 to 1940. Despite being one of many airfields built in the late 1920's as a statewide effort to improve access and promote development throughout Alaska, it no longer retains any of the historic physical features and characteristics associated with its period of significance.

Although the location of the Seward airport today is similar to that of its original construction, aspects of the airport's design, setting, materials, workmanship, feeling, and association have been irrevocably compromised by subsequent improvements to keep the facilities in compliance with FAA specifications.

In the late 1920's, the Seward airport had two different stages of design. The original 1927 design of the airport consisted of single 200 x 1000 foot long airstrip carved out of the vegetation at a remote location near the naval radio station at the head of Resurrection Bay nearly a mile from Seward. Between 1929 and 1930, the Alaska Road Commission and the City of Seward shifted the airfield north of Radio Station Road and built two runways: one on an east-west axis and the second on a north-south axis (Figure 4). Work for both airfields required clearing existing forested areas and leveling them using local road construction equipment, dynamite, and hand tools. These design qualities unique to early airport construction in rural Alaska have been supplanted by a fully modern airport with two runways, parking aprons, taxiways, and support facilities built to FAA specifications.

The airport's original setting was characterized by its remote wooded location and its roughed-out nature of construction. Over time this setting has been altered by Seward's development and with improvements to the airport itself. Today, the airport itself is partially surrounded by the City of Seward and is bordered on its west side by an Alaska railroad yard and the Seward Highway. To its north are residential neighborhoods and commercial properties. To its south are docks and waterfront associated with support of tour lines and shipping companies. To its east, one of the channels of the Resurrection River has replaced forest land and now abuts runway 13-31. Likewise, the relatively primitive nature of both the original 1927 airfield and the 1930 airfield has been lost in the installation of flood lighting,

radio communication systems, landing strip lights, storage and support facilities, and the construction of fully modern runways featuring asphalt and striping. Little of the airport's original setting remains to depict the difficulty, danger, and dirtiness associated with early air travel to Alaska's first airfields nor the physical environment of the first airfields which had far fewer amenities than those today (Figure 24 provides a glimpse of on the ground conditions in 1964).

Modernization of the airport over the last 80 years, including its significantly larger footprint, paved surfaces, lighting, fencing, safety zones, expanded parking and storage areas, access roads, and array of specialized buildings have compromised aspects of the original airport's materials and workmanship. The sum of these changes are such that the Seward airport today no longer retains sufficient historic physical features to convey a feeling and association with the first years of aviation in Seward. Therefore, DOT&PF finds the Seward airport (SEW-01625) not eligible for the NRHP.

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Figures

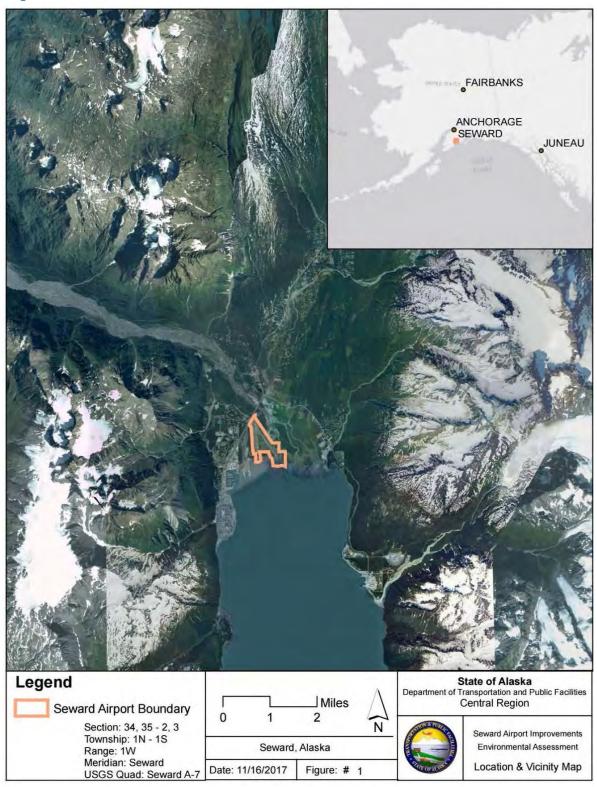


Figure 1. Location and Vicinity Map



Figure 4: Aerial photo of the expanded Seward airfield circa 1930. Image #2410.1.1 courtesy of the Resurrection Bay Historical Society.

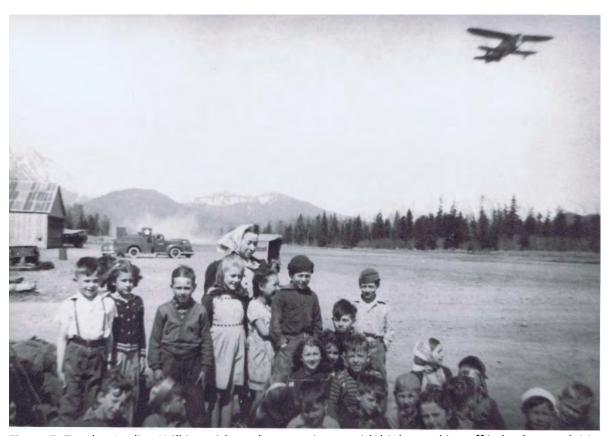


Figure 5. Teacher Lurline Wilkins with students at airport with biplane taking off in background. May 10, 1943. Image #2410.1.7 courtesy of the Resurrection Bay Historical Society.



Figure 6. Map showing military land and the landing field at the head of Resurrection Bay.



Figure 7: August 8, 1950, aerial photo of Seward Airport. Photo from United States Geologic Service Earth Explorer aerial imagery viewer. Photo ID BM03710200353. https://earthexplorer.usgs.gov/



Figure 8: 1961 Aerial photo overview of Seward Airport. Note parked airplanes along Runway 16-34. Photo from DOT&PF archives.



Figure 9: 1962 Aerial of Seward Airport following the construction of parking apron in the lower left quarter the photo. Photo from DOT&PF archives.



Figure 10: Overview of buildings on west side of Runway 16-34 on November 29, 1962. Photo from DOT&PF archives.



Figure 11. Overview of southern end of runway 13-31 after DOT&PF had 75% compaction from contractor in July 1966, facing southeast. Photo from DOT&PF archives.

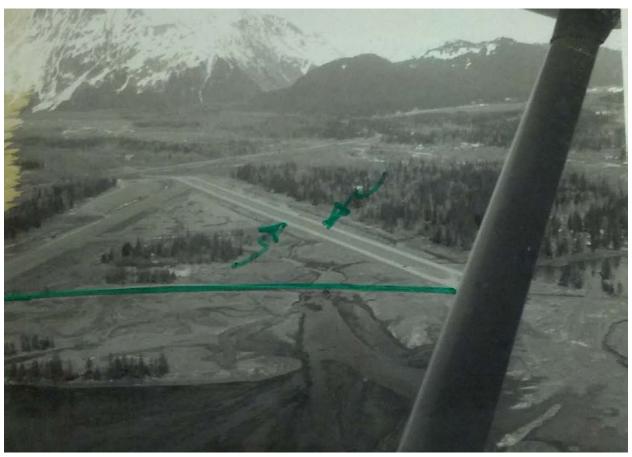


Figure 12: 1966 Aerial photo showing abandoned public road (line) and proposed haul routes (arrows) for extending runway 16-30. Photo from DOT&PF archives.



Figure 13. Location of Seward Naval Radio Station (SEW-00835) in relation to the southern end of runway 13-31 in May 1966. Note construction work to extend runway at left edge of photo. Photo from DOT&PF archives.



Figure 16: July 8, 1975, Overview of Seward Airport prior to runways, taxiways, and apron being surfaced with bituminous sealcoat. Photo from DOT&PF archives.



Figure 17: July 1975, top course seal operation in progress. Photo from DOT&PF archives.



Figure 18: July 21, 1975, work crew painting '33' on runway 15-33 (today's 16-34). Photo from DOT&PF archives.



Figure 19: July 1975, Overview of Seward Airport after runways, taxiways, and apron being surfaced with bituminous sealcoat. Photo from DOT&PF archives.



Figure 23. April 20, 2017 Photo of Seward airport SREB and sand shed.



Figure 24. Seward Airport. Cordova Airlines plane on runway. 1964. Image #2600.1.33 courtesy of Resurrection Bay Historic Society.



Department of Natural Resources

DIVISION OF PARKS & OUTDOOR RECREATION Office of History & Archaeology

> .550 West 7" Ave., Suite 1310 Anchorage, Alaska 99501-3565 Main 907, 269,8721 http://dnr.alaska.gov/parks/oha

File No.:

3130-1R FAA/2018-00112

Subject:

Seward Airport Improvements, TBD/Z548570000

Michael Wanzenried Department of Transportation & Public Facilities PO Box 196900 Anchorage, AK 99519-6900

Dear Mr. Wanzenried,

The Alaska State Historic Preservation Office (AK SHPO) received your letter (dated June 5, 2018) on June 5, 2018. Following our review of your letter and the report titled *Determination of Eligibility Seward Airport (SEW-01625) Seward, Alaska*, our office provides the following comments on the determinations of eligibility for listing on the National Register of Historic Places (Table 1).

Table 1. Determinations of Eligibility

No.	AHRS#	Site Name	DOT&PF Determination	SHPO Comment
1	SEW-1625	Seward Airport	Not Eligible	Concur
2	SEW-0007	Russian Trail	Not Eligible	There is no need to evaluate the segment of trail from the south shore of the Resurrection River to Port Avenue because it is evident from your research that this segment, as shown in the AHRS mapper, has been destroyed or possibly followed a different route outside of the airport boundary. We will update the condition of the trail segment on the AHRS card as destroyed, with a note that the historic location description is unclear.

Additionally, we reviewed the subject undertaking pursuant to Section 106 of the National Historic Preservation Act. Following our review, we concur with your finding of no historic properties affected for the subject undertaking.

Please note that as stipulated in 36 CFR § 800.3, other consulting parties such as the local government and Tribes are required to be notified of the undertaking. Additional information provided by the local government, Tribes or other consulting parties may cause our office to re-evaluate our comments and recommendations. Please note that our comment letter does not end the 30-day review period provided to other consulting parties. Should unidentified cultural resources be discovered in the course of the project, work must be interrupted until the resources have been evaluated in terms of the NRHP eligibility criteria (36 CFR § 60.4) in consultation with our office.

Thank you for the opportunity to review and comment on the subject undertaking. Please contact Mark Rollins at 269-8722 or mark.rollins@alaska.gov if you have any questions or if we can be of further assistance.

Sincerely,

Judith E. Bittner

State Historic Preservation Officer

JEB:mwr

APPENDIX AA

PUBLIC COMMENTS SINCE PUBLICATION OF DRAFT EA (NOVEMBER 2018)

Seward Airport Improvements Project (Project No. Z548570000)

Scoping Efforts

12/12/18 Public Open House and Draft EA and 08/08/19 Public Hearing Documentation and Comments

December 2018 through March 2020

Scoping Efforts Contents

Contents Regarding the 12/12/18 Public Open House and Draft EA Contents

Memorandum Regarding the 12/12/18 Public Open House and Draft EA Summary

December 2018 Outreach and Advertising

Online Notice of Document Availability and Public Meeting Announcement

Project Website Updates (Document Library and Current Events)

Newspaper Advertisements and Affidavits of Publication

Email Announcements and Distribution Lists

Mailer and Distribution Lists

December 2018 Public Open House Documentation, Comments, and Feedback

Open House Sign-In

Station Overview Handout

Station Display Posters

Written Comments

December 2018 Stakeholder Working Group Documentation

Meeting Notes and Report

Materials Presented

Post-December 2018 Meeting Errata

Environmental Assessment December 2018 Errata

Errata Website Location

Email Announcement and Distribution List

Federal Aviation Administration Letter to City of Seward Re: Public Hearing

Agency Scoping Comment

Post-Errata Distribution Comment:

January 8, 2019, Heil, C., DEC

Contents Regarding the 08/08/19 Draft EA Public Hearing Documentation and Comments

Memorandum Regarding the 08/08/19 Public Hearing Documentation Contents

August 2019 Outreach and Advertising

Project Website Announcement (Document Library and Current Events)

State Online Notice

Newspaper Advertisements and Affidavits of Publication

Mailer and Distribution Lists

Email Announcements and Distribution Lists (Project Announcements, What's Up)

Contents Regarding the 08/08/19 Draft EA Public Hearing Documentation and Comments (continued)

August 2019 Hearing Documentation, Comments, and Feedback

Hearing Sign-In

Handouts (Station Overview and Frequently Asked Questions)

Station Display Posters

Public Hearing Discussion Notes

Court Reporter Documented Testimony

Hearing Written Comments

Pre- and Post-August 2019 Hearing Comments

Pre- and Post-Hearing Comments (Telephone, Email, Mail)

August 3 and 4, 2019, Snowden, Brad

August 10, 2019, Dillon, Tim

August 10, 2019, Leirer

August 14, 2019, Terry, Christy

August 15, 2019, Jaffa, Bruce

August 15, 2019, Landstrom, Lori

August 15, 2019, Leirer

August 19, 2019, Linville, Patricia

August 20, 2019, Linville, Bob

August 22, 2019, Griswold, Carol

August 24, 2019, Jaffa, Bruce

August 25, 2019, Luttrell, Mark

August 26, 2019, Jaffa, Bruce

August 26, 2019, Luttrell, Mark

August 26, 2019, Paquette, Lynda

August 27, 2019, Von Breuken, Celine

December 11, 2019, Linville, Bob

Draft EA Public Review Comment Summary and Responses (December 2018-August 2019)

Agency Scoping Comment

Post-Hearing Comment and Response:

February 28, 2020 National Marine Fisheries Service Comment

March 2, 2020 Federal Aviation Administration Response

Memorandum Regarding the 12/12/18 Public Open House and Draft EA Summary

MEMORANDUM

Date: October 25, 2019

To: File

From: Robin Reich and Olivia Cohn (Solstice Alaska Consulting, Inc.) with input and

review from Royce Conlon and Erica Betts (PDC Engineering)

Subject: Summary of the Seward Airport Improvements Project (#Z548570000)

12/12/18 Public Open House to Present the Draft Environmental Assessment

Introduction

This document provides a summary of the December 12, 2018 public open house and outreach efforts to present the Seward Airport Improvements Project Draft Environmental Assessment (EA). The Draft EA was completed and outreach efforts to present it began in November 2018, in keeping with the project's Public Involvement Plan (PIP), Phase 2: Environmental Documentation. The December 12, 2018 open house was the third Seward Airport Improvements Project public open house, following meetings held in 2014 and 2016. Meeting outreach and documentation materials are provided in the attachments.

Draft EA Publication

Hard and electronic copies of the Draft EA were made available for public review. By November 28, 2018, hard copies were printed and delivered to the Seward Community Library at 239 6th Avenue in Seward and the DOT&PF Central Region office at 4111 Aviation Avenue in Anchorage, and an electronic copy was published to the project website's document library at <www.dot.state.ak.us/creg/sewardairport/documents.shtml>. Once the Draft EA was publicly available, it was advertised through various outreach efforts as summarized below.

Notification of Draft EA availability and an upcoming public open house was provided to the public, the local community, project stakeholders, and agencies.

Specific notification efforts included the following.

- An online notice was published on the project website's document library <www.dot.state.ak.us/creg/sewardairport/documents.shtml>, and a meeting announcement was published on the current events section <www.dot.state.ak.us/creg/sewardairport/current_events.shtml> on November 19, 2018.
- Newspaper advertisements were published in the Seward Journal on November 21 and 28 and December 5, 2018.
- Email announcements were sent to the project mailing list on November 28 and December 11, 2018.

• A mailer was postmarked by November 30, 2018 and was delivered to 168 recipients.

Outreach and notification documentation is provided in the attachements.

Open House Purpose and Format

An open house was held on December 12, 2018. The purpose of the open house was to: present the Draft EA; gather input on the Draft EA; and provide an update regarding Seward Airport Improvements Project next steps. The meeting helped to meet the PIP goals to: facilitate and ensure access to the draft environmental document for review by stakeholders, the public, and agencies, and ensure compliance with federal and state requirements for National Environmental Policy Act notification and review of the draft environmental document.

The open house format enabled the public to attend any time during posted hours and visit information stations staffed by the project team.

Stations and Information

The public open house was held On December 12, 2018, from 5:00 p.m. to 7:30 p.m. at the K.M. Rae Marine Education Building located at 125 Third Avenue in Seward. In addition to the project team consisting of DOT&PF, PDC, and Solstice Alaska representatives, at least twentynine people attended and signed in. Upon arrival, attendees were offered an open house station overview describing the materials for review and opportunities to interact with the project team. Attendees were encouraged to submit written and verbal comments and continue to visit the project website.

The following materials were presented as displays:

- A Proposed Action poster;
- Land use, biological resources, wetlands, and floodplains poster maps with Proposed Action impact and mitigation summaries;
- An alternatives selection poster comparing alternatives;
- Poster summaries comparing the No Action and Proposed Action Alternatives; and
- A schedule and process poster.

Meeting documentation, including sign-in sheets and station displays, is included in the attachments.

During the public open house, the project team spoke with attendees, collected comments verbally, and encouraged written comments. Four written comments were received during the open house. Following the open house, 12 public comments were received (11 via email, 1 via telephone) from December 2018 through February 2019. Comments received during this time focused on impacts to wildlife and the environment, a preference for Alternative 1.1 and not supporting Alternative 2.2 (the Proposed Alternative), and a preference for a 4,000-foot (ft) runway (RW). Comment themes are summarized in Table 1, and written comments are included in the attachments. *Notes: four emails that were blank with a subject requesting to be*

added to the mailing list are not included but are available upon request; two emails were very detailed and make up the majority of the comment summary in Table 1.

Table 1. Comment Summary by Themes

	ent Summary by Themes
Theme(s)	Comment(s)
Biological	Alternative 2.2 will have major, unacceptable wildlife impacts. Alternative 1.1 is
Resources	preferred, especially after learning about float plane ditch dredging maintenance
	Damage to this critical wetland is beyond the pale if Alternative 2.2 comes to fruition
	The wetlands are small, and the animal species that live and migrate over the area are
	not of high concern, and it is recognized that there will be wetland destruction and
	migration will be impacted; as this moves forward, efforts should restore or create
	alternative habitat in the area
	Local wildlife is integral to the spirit of Seward and to attracting visitors and spending
	Do what you can to enable wildlife to continue to vitalize this land
	The project should not move forward due to its environmental impacts, especially to
	birds and fish (verbal comment)
	Removing 3.5 acres of high-quality habitat is not a minor loss, it's huge. There is no
	other high-quality habitat in the25 acres. The area is constantly disturbed by
	fishermen, ATVs, and others. It is not comparable. If birds are hazed away from the
	runway/airport, how are birds and wildlife able to use other areas? Ebird.org is cited,
	which is great, but notice sightings/report locations. This is the habitat the wildlife
	use. If there were other locations, wildlife would use them. There is no other suitable
	habitat. Wildlife are funneled into airport wetlands.
	ADFG and USFSW comments were limited to construction, not relocating/extending
	the runway and the other proposed actions impacts after project completion. Get
	feedback from these agencies before continuing with planning.
	Doing a September, 3-hour assessment is inadequate. Come in the winter when fields
	are flooded, icebergs are on the runway, and wind is howling. Come in the spring and
	see salmon, bears, and birds. Every effort has not been made to protect this valuable
	wetland ecosystem that serves as a protective interface between the ocean and land.
	More detail and avoidance/mitigation re: the ecology of the Pacific tidal marsh,
	estuary, and wetlands is needed. The runway extends into a Pacific tidal marsh, one of
	Alaska's most critical habitats, according to a report by UAA.
	Do an honest assessment of the wildlife that use the area during the months of May
	or June when the area is not frozen for a true representation.
	Birds
	Birds cannot and will not move to nearby locations because there are none. Birds
	learn habitats and migration routes from parents. Species cannot just move or adapt,
	especially when there is no other suitable habitat and the time frame is short. The
	wetland complex microhabitats are extremely limited, and this is a very unique,
	significant place for wildlife. This project and its long-term consequences will wipe out
	essential, critical habitat; it is unrealistic and unsubstantiated that birds could find
	suitable habitat. There is no other nearby salt marsh system.
	Dissuading/hazing migratory birds from the only, most suitable feeding, resting The birds is in the forest label property of the birds and be birds and be birds and birds are seeded. The birds are seeded in the b
	habitat is indefensible. Birds have no other habitat option, will still come, and will be
	killed. There is no other habitat for them once hazed. The birds migrate from the
	south up the bay and must rest before crossing mountain passes and continuing to
	breeding grounds.

Theme(s)	Comment(s)
Biological	Migratory waterfowl and passerines were excluded from analysis. They migrate
Resources	through and nest in the uplands and pond. Dusky Canada Geese (pop. declining)
(Continued)	use this area as staging grounds. Northern Pintail, Gadwall, Mallards, Green-wing
	teal, Great Blue Herons and Bufflehead and songbirds and shorebirds nest in the
	wetlands. Dusky Geese are in decline and on the Audubon watch list. ADF&G is
	and has been studying them due to the declining status (contact them for input).
	The wetland complex microhabitats are extremely limited. This project and its long-
	term consequences will wipe out essential and critical habitat; it is unrealistic and
	unsubstantiated that birds could find suitable habitat. Provide supporting
	documentation of other Pacific salt marsh, Lyngbe sedge low marsh zone, beach
	ryegrass high marsh berm, pond, estuary, and wetland systems nearby. Avoid,
	minimize, mitigate wetland impacts by maintaining RW 13-31 as a levee.
	The Species of Conservation Need and Greatest Conservation Need that were listed
	should be considered along with the 30 Birds of Conservation Concern (BCC).
	Lowland sedge habitat is an important migratory bird food source, and provides
	migratory resident nesting habitat. Sedges are important vole food, which provide
	food for Short-eared Owls, Great Horned Owls, Northern Harriers, Sandhill Cranes,
	 bears, and coyotes. This large sedge habitat should not be dismissed with a low rank. Black Oystercatcher, Kittlitz's Murrelet, Aleutian Tern, Caspian Tern, Red-faced
	Black Oystercatcher, Kittlitz's Murrelet, Aleutian Tern, Caspian Tern, Red-faced Cormorant, Pelagic Cormorant, Peregrine Falcon do not breed here. Marbled Godwits
	do not nest here. Very poorly researched.
	 Disagree that bird impacts are minimal and that they could move to adjacent habitat.
	There is no suitable equivalent for losing 2.6 acres of tidelands, 0.7 acres of Pacific salt
	marsh, 21.5 acres of lowland sedge-shrub, 0.08 acres of pond, 0.023 acres of Lowland
	Tall Scrub, 1.013 acres of Riverine Broadleaf Forest.
	• Actual filling is only part of the impact. Building the runway into fragile habitats brings
	aircraft closer and lower, creates more noise and disturbance, and disrupts bird
	activities in the area. Impacts cannot be summarily dismissed.
	The statement about the project following USFWS timing guidelines to minimize
	impacts to birds is untrue. The terns arrive in late April and leave in mid-July or early
	August, depending on conditions. The project will not stop during this critical time.
	The USFWS window is May 1-July 15 regardless of reality. Move runway 16-34 back,
	reduce the riprap and shore armoring footprint by making it as steep as possible, use
	clean rock.
	For Appendix D: BCC: add Bristle-thighed Curlew; doubt Horned and Tufted Puffin, Total Control of the
	Kittlitz's Murrelet entries at airport.
	There is an Arctic Tern nesting colony that utilizes the area that will be filled by this
	project and this group of birds has been forced to utilize this location over recent years by recreational fisherman utilizing other areas at the head of the bay. This
	colony will be destroyed. There is no other suitable habitat for the Terns nor is there
	other suitable habitat for other migratory waterfowl that utilize the ponds to be filled.
	Fish
	Aside from anadromous streams on the figure, no fish survey data was included. This
	is a serious omission to be rectified. I documented fish data through personal
	observations, 11 years of COASST surveys of Airport Beach, and stickleback studies
	under ADFG permit.
	AWC Code 231-30-10075, located between RW 16-34 and 13-31, contains spawning
	and rearing habitat for pinks and chum salmon. An uncatalogued stream that aligns
L	,

Theme(s)	Comment(s)		
Biological	with the proposed Float Plane Channel contains spawning Pinks, and the Lygnbye		
Resources	sedge wetlands is rearing and home habitat for other species including threespine		
(Continued)	sticklebacks, flounder, sculpins, and Dolly Varden, and salmonids. ADFG updated the		
	Anadromous Waters Catalog, which will be updated in June 2019.		
	Other uncatalogued streams support anadromous species including pink, silver, and		
	chum salmonand 3-spine sticklebacks.		
	Denying that two salmon species, stickle-backs, flounder, and sculpin depend on this		
	ecosystem for reproduction, survival, and will not be affected is poorly researched.		
	Clarify how no marine mammals or fish occur in the project area. Records from ADFG		
	from a long-term Three-spine Stickleback study should be included and considered.		
	I am an aquarist at the Alaska Sealife Center and regularly sample waters of the area		
	to be affected. This area is a critical nursery for young fish including Dolly Varden, Pink		
	Salmon, Chum Salmon, Sticklebacks, Starry Flounder, and Staghorn Sculpin.		
Construction	I appreciate the removal and reuse of asphalt from abandoned runways, aprons, and		
Materials	taxiways. I encourage DOT to minimize hardened surfaces so vegetation mitigates		
	floodwater/rainwater. This includes the area at the north end of the airport. A storm		
	water vegetation berm there, leaving the rest vegetated, would help deflect flood		
	water, absorb surface water year-round, and protect infrastructure. This staging area		
	was removed; however, it is noted as a Material Disposal area.		
	Recycled asphalt should not be used for riprap/slope armoring. It will negatively		
	impact the salt marsh ecosystem. Only clean rock should be used. To comply with the		
	Mitigation Rule, do not permit materials to be dumped on native vegetation. Haul		
Demand/	them to the landfill. Use clean rock for riprap/armoring.		
Airport Use	 It would be unfortunate if, due to runway length limits and inability to utilize larger aircraft, the airport did not meet potential for current and future aircraft and thus 		
All port osc	become drastically underutilize. Anticipated improvements would then not be used		
	effectively and be put toward maximum benefit.		
Design	A short gravel strip, perhaps along the main RW, to accommodate bush tires is		
	needed. Talkeetna has a great, heavily-used option along the main RW. Landing		
	on the hard surface with bush tires is very costly.		
	If dredging for a floatplane channel, why not raise the existing long RW, reinforce		
	it with riprap, and dredge the river channel as needed? This is the most common		
	sense and direct approach, like Lower 48 U.S. Army Corps of Engineers examples.		
	Regarding the Proposed Action (Figure 2):		
	 One long runway is not what local pilots want. This project will cost more 		
	money in construction and upkeep then working with the current runways.		
	 The wind cone is located in a popular spot for helicopters. If a weather 		
	station is co-located, will rotor wash affect station readings? Is there a more		
	appropriate location, perhaps east of the runway?		
	 The trees (south end of apron, taxiway F (T/W F)) serve as storm and wind 		
	breaks and are wildlife habitat and Bald Eagle perches in a high water table		
	wetland. To reduce flood impacts, avoid removing them and plants. Per the		
	errata, this staging area was removed. The new runway will be located		
	farther from trees. There is no reason to clear the area. Note them as		
	"obstacle notes."		
	o Extending fence through wetlands and slough to the south is ill-advised and		
	affects jurisdictional wetlands. Wetland installation will be difficult. The tide		
	delivers debris that will quickly damage the fence, requiring expensive		

Theme(s)	Comment(s)
Design	maintenance. The existing fence has large, ungated openings and does not
(Continued)	restrict people/wildlife. It would be more cost-effective to enforce no
	trespassing or add gates and locks to the existing fence. Wildlife will be a
	problem. The extension will only exacerbate distress, requiring them to go
	farther.
	o The float plane channel width is buried in the report. The statement that the
	proposed action, RW, and float plane channel would not alter wetlands hydrology is unsupported and untrue.
	 Float plane floats could deliver invasive species.
	 Dredging and maintenance will be required to clear debris and sediment
	from the float plane channel. The channel will deliver the ocean directly to
	the fence and runway, especially during tides and storms.
	Where is the hydrology study regarding float plane channel?
	 Consider placing the Secondary Lighted Wind Cone to the east of the new
	runway. It will need to be elevated above the tide line.
	Recycled asphalt should not be used for riprap/slope armoring; it would
	negatively impact the salt marsh ecosystem. Minimize hardened surfaces to allow
	vegetation to mitigate flood/rainwater runoff.
	Do not clear all the spruce trees that are storm and windbreaks protecting planes
	and buildings and wildlife habitat and bird perches.
	The float plane channel will impact 1.65 acres of valuable tidal wetlands,
	including an anadromous stream and fish nursery. It will severely impact and alter
	wetland hydrology and not will not be used.
Environmental	This document is incomplete, outdated, and lacks proper research. It also: lacks local
Document	knowledge of land, wetlands and surrounding tidal area; is not what local Seward
	pilots want – one new runway won't be long enough for most corporate jets, it will
	likely have a cross wind factor, and pilots need two runways when winds are bad; and
	it is missing or doesn't adequately address measures to avoid, minimize, and compensate for wetland losses, and poorly presents environmental impacts.
	The Draft EA is perfunctory, with missing, incomplete, outdated, and erroneous data.
	Assumptions are made without substantiation. The Wetlands Assessment did not
	assess jurisdictional tidal wetlands affected by the current airport plan and omitted
	essential data. Measures to avoid, minimize, and compensate for jurisdictional
	wetland losses are missing or inadequately addressed. Fish data was not included.
	These issues are troubling, and regulators and agencies should require corrections
	before this EA/project are approved and proceed.
	Why was climate change not addressed? Changing weather patterns and rising sea
	levels will have a major effect on this runway. Is raising the RW 16-34 above the
	current 100-year flood level with 2 ft of freeboard high enough?
	Regarding the Errata: reinforce abandoned RW 13-31 as a protective levee; delete
	security fence extension to south into tidally influenced wetlands; delete float plane
	channel and access road; remove material off-site, not on native vegetation or
	wetlands within the airport; and selectively clear and grub a much-reduced footprint.
	Regarding the Proposed Action (Figure 2): The aerial photo. is outdated. AKRR clear sut the forested area west of Airport Rd. DOT&RE clear sut the island of trees south of
	cut the forested area west of Airport Rd. DOT&PF clear cut the island of trees south of taxiway A. The ecosystem is unnecessarily being destroyed. Text boxes would be
	easier to read if white backgrounds were rectangles.
	Avoidance, minimization, and mitigation have been ignored.
	A to data of minimization, and majoration have been ignored.

Theme(s)	Comment(s)
Environmental	Appendices are variously labeled in the table of contents and report. For clarity and
Document	consistency, relabel and add page numbers.
(Continued)	Expand geographic scope to include the entire head of Resurrection Bay. Seward
	Marine Industrial Center and Spring Creek Correctional Center are not part of this
	geographic scope and references should be deleted.
Flooding	Design calls for an eventual 4,000-ft runway length. Land necessary for such a length
	is being acquired. One statement said undertaking the full 4,000-ft runway would
	slow the project due to the CLOMR/LOMR process. We are not convinced that studies
	and revisions will not be necessary with the current length.
	Regarding the Floodplain Map (Figure 8): Zones, including AE not defined in List of
	Acronyms and Abbreviations and should be explained.
	This anticipates that Resurrection River will overtop and breach RW 13-31, allowing
	floodwater to reach RW 16-34's embankment. Allowing it to do so and eventually
	restore part of the original floodplain may be true but is no longer desirable. The river
	will not recognize which area is approved for "restoration" and which would lead to
	damage. The original L alluvial delta and floodplain included the head of the bay all
	the way west to the current Lagoon at Van Buren St. and Second Ave. The area is now
	filled with infrastructure. The runway, wetlands, tidelands, and AKRR infrastructure
	will be catastrophically impacted when RW 13-31 is abandoned and breached. I
	disagree with the conclusion. The Proposed Action WILL cause flow alterations
	resulting in flooding and destruction of habitat/infrastructure. The potentially
	catastrophic consequences to ecosystem and infrastructure should be discussed.
	Comply with the Mitigation Rule by maintaining RW 13-31 to continue to armor and
	reinforce as a levee.
	Allowing Resurrection River to breach RW 13-31 and flood wetlands will cause serious
	floodplain impacts.
Harandana	Elaborate on adjacent waterbody impacts and how they can be avoided/minimized. Desire the avoided from the avoided
Hazardous	During the project and after: there is the possibility of pollution anywhere aircraft and
Materials,	fuel are stored. Hazmat materials should be on site in case of a spill, and personnel
Waste, and Pollution	should be trained to respond quickly. 55-gallon fuel drums should be monitored, and
Invasive	underground fuel tanks should not be allowed due to the high-water table.
Species	The Invasive Species section is inaccurate, incomplete, and very poorly done. It does not address the impacted area of the project.
Species	I challenge, "Common emergent vegetation consists of invasive graminoid species and
	shrubs of low height because of repeated clearing for airport maintenance." The
	native plants are remarkably resilient and tolerate mowing. There are no invasive
	shrubs in the Lowland Sedge-Shrub Management Area.
Land Use	 Is there a backup if Leirer Family Limited Partnership refuses to sell? I understand the
24114 030	land acquisition is needed for airspace protection to the south and for a possible
	controversial runway extension to 4000-ft.
Minimization/	The Environmental Consequences of the Alternative is a serious list of adverse effects
Mitigation	to jurisdictional wetlands.
	I appreciate the thought of protecting Civil Air Patrol Land trees, but it's misleading.
	The Errata shows that trees and shrubs along Airport Road will be cleared/grubbed.
	Minimize this action by leaving a 50-ft-wide native vegetation buffer around the pond,
	minimize tries cut, and consider topping instead of stumping.
	Impacting 25 acres of wetlands is a substantial negative effect. This and other
	proposed actions will substantially reduce the natural system's ability to retain
	p. op 200 a dollars with danstantiany reduce the natural system 5 ability to return

Theme(s)	Comment(s)
Minimization/	floodwater and storm water runoff. Reduce this to the barest minimal impact by
Mitigation	moving new RW 16-34 back or shortening it, delete the float plane channel and access
(Continued)	road, retain the trees south of the Airport Road cul-de-sac, haul disposal materials off-
	site, retain vegetation north of the airport apron, retain trees/shrubs on CAP
	property, etc,, and place at least 25 acres of comparable wetlands into a conservation
	easement. Every habitat type was listed as saturated or inundated. The water table is very high.
	Concerns are dismissed instead of addressed. Address consequences, discuss and apply measures to avoid, minimize, and mitigate the negative effects.
	 Mitigation comments from ADFG and USFSW appear to be limited to construction,
	not to the impact the project after completion.
	• The Plan does not describe how it will avoid/minimize impacts to aquatic resources.
	Move the Secondary Lighting Cone farther east, delete impractical fence extension,
	leave the trees and shrubs. The small pond to the northeast on Civil Air Patrol
	property should have at minimum, a 50-ft natural vegetation buffer. Instead of
	clearcutting the trees, they should be carefully evaluated and cut selectively.
	Potentially hazardous obstacles should be noted, not cut.
	Since the airport is built in a wetland/upland complex, it is not possible to avoid
	wetlands. But every foot the runway can move north, away from the tidal marsh, makes a difference.
	Removal of TW A, D, and E may indeed help reestablish hydrological connectivity.
	Regrading of the 0.3 acres may result in 0.3 acres of weeds, quick to establish on
	disturbed, exposed ground, unless reseeded with native plants. Minimize impact:
	place material stockpiles on hardened surfaces in uplands instead of on native
	vegetation. Remove materials off-site; do not store on site. Require contractor to
	revegetate with native seeds.
	• Mitigation ~25 acres of wetlands impacts should include conservation of wetlands in
	the area with a conservation easement. A potential private parcel is KPB Parcel ID
	#14529003 at the mile one Nash Rd. wetlands, on the east side of Nash Rd. adjacent to Cook Inlet Region KPB #14511001and across from ADFG KPB #14502217.
	Allowing RW 13-31 to eventually breach will restore part of the original floodplain
	while endangering the salt marsh and AKRR infrastructure.
	The Airport does not operate under a Multi-Sector General Permit for storm water
	discharge. If/when it has a de-icing program or generates other contaminants, storm water discharges should be regulated to protect the salt marsh and wetlands.
	Where is the additional planning and required compliance with the Mitigation Rule for
	the Proposed Action 3,300-ft runway "but will also include the necessary property
	acquisition and planning for a potential future RW extension to 4,000 feet?" Where
	are the market studies to substantiate the need for small jet operations and the
	studies to substantiate the City of Seward claims of limits on economic growth?
Noise	Noise impacts are described in an inappropriate, human-centric way. It is not
110.00	primarily a "bird-watching area" but a critical and essential spawning ground and
	nursery for coastal fish and shellfish; nesting, feeding, and resting site for waterfowl
	and resident and migratory birds. Extending the runway farther into the wetlands and
	salt marsh pond will bring the noise and presence of the planes directly into this
	important habitat and negatively affect the ecosystem. The adjacent barge repair
	operation on AKRR property already negatively affects this ecosystem with noise,
	activity, and the workers' roaming, loose dogs. Avoid, minimize, and mitigate impacts
	assissing, and the workers rounning, roose dogs room, minimize, and minigate impacts

Theme(s)	Comment(s)	
Noise	to wetlands and biological resources by moving RW north away from the salt marsh or	
(Continued)	shorten it. Remove impractical and expensive to maintain Float Plane Channel.	
RW Length and	The City of Seward will submit formal comments regarding the need to extend the	
Alternatives	RW to 4,000 ft (City of Seward written comment). Using Federal Aviation	
	Administration (FAA) design standards in Alaska may not result in ideal outcomes	
	based on Alaska's unique realities. This is overall an emergency response issue.	
	• 4,000 ft or nothing	
	 The community prefers a 4,000-ft runway over the proposed 3,300-ft runway. The proposed length is consistent with rules and regulations that may work in the lower 48. However, these regulations turn a blind eye to the unique nature of Alaska, 	
	distance between communities, and potential for using aircraft as a primary means of	
	moving large numbers of people or supplies. Limiting runway length would require larger aircraft relief flights to use less fuel or less cargo in order to operate. In the	
	event of a relief operation, this is inefficient. The project should maximize the potential of infrastructure improvementsthe City of Seward requests that	
	proposed improvements to the Airport include building the runway to 4,000-ft.	
	Curious regarding overall selection of alternative and concern with abandoning the	
	main runway 13/31. Interested in long-term impacts what he believes will occur to	
	the ARRC docks and the city harbor. Breaching the runway will cause sediment to	
	move downstream and accumulate at the entrance to the harbor rendering it	
	unusable by cruise ships and cargo vessels headed to the ARRC facility. Alternative 1.1	
	is the best option. Why wasn't it presented at the public meeting? The best option is	
	to construct 1.1 so the raised and enforced runway (13/31) would be a protective dike	
	protecting ARRC and the harbor. The various federal and state agencies need to work	
	together for an overall longer-term solution.	
Permitting	The Consultation, Permits, and Other Approvals is buried. Where is the tidelands	
	survey documentation? Why is a DNR land use permit not needed for the extremely	
0.11:	destructive float plane channel?	
Public Involvement	 Requested clarification regarding Seward Airport EA comment due date and recipient (City of Seward Emailed Comment) 	
	 Four people stated project interest by requesting to be added to the listserv; (N.b., these emails were blank and are not included in the attachments.) 	
	• Did anyone (from the public) comment in support of the alternative that was selected as the Preferred Alternative? Per the comments, the public seems not to support it.	
	Input is not being heard (verbal comments)	
	 We [the City of Seward]appreciate the openness and thoroughness. We, however, have concerns and would like to see changesWe look forward to completion of this critical infrastructure project. 	
	I hope our local knowledge is taken seriously. Not only are we locals, but we work in	
	science and have been trained to assess habitat, wildlife, and how construction	
	projects that take place in a cold marine environment will be affected.	
	I appreciate January 9 extension, due to the federal government shutdown but was Appreciate January 9 extension, due to the federal government shutdown but was Appreciate January 9 extension, due to the federal government shutdown but was	
	unable to confer with ecologists and botanists from agencies including the National	
	Park Service and Islands and Oceans.	
	I'm looking forward to updates through the mailing list. Wo [City of Soward] request a public bearing on this EA to allow for more comments.	
Durnoso and	We [City of Seward]request a public hearing on this EA to allow for more comments. Whore did air tayl and general aviation expectations statistics come from? Numbers.	
Purpose and Need	Where did air taxi and general aviation operations statistics come from? Numbers seem extremely high and not true. They imply a much busier airport. This is a low-	
INCCU	Seem extremely high and not true. They imply a much busief all port. This is a low-	

Theme(s)	Comment(s)
Purpose and	activity airport used by private planes, 1 medivac, and 3 helicopter tour companies.
Need	(Helicopter needs were not addressed.) How is a 3,300-ft runway justified?
(Continued)	How are air taxi and general aviation operations documented? The numbers seem
	highly inflated, and if so, imply a busier airport than reality. According to previous
	plans, operations have not increased, and growth may even be negative. This is a very
	low-use airport primarily serving small private planes, three seasonal helicopter tour
	companies, and a single medevac operator. Is a 3,300-ft runway justified? Helicopters
	as airport users are not mentioned. Helicopter activity has increased. The project
	should address their impact and needs.
	• Concerned about affects this project will have on the environment and its need. As an
	almost 20-year resident, I disagree with statements and definitely question the need.
	We are never getting commercial flight to Seward as weather and demand do not
	facilitate it. Medical emergencies can be evacuated via helicopter.
Recreation	Do not target bird watchers as the only group that crosses active air operations. Since
	trees were cut down, this area became more visible to locals for recreation. There are
	far more recreational users, many who are inconsiderate of aircraft and habitat.
Safety and	Using the airport during disasters is a major reason to have an airport. Elaborate and
Emergency	address how airport improvements will be engineered to survive natural disasters.
Response	LifeMed operates a medevac helicopter that serves the Providence Seward Medical
	and Care Center on First Avenue.
Socio-	Will the electric system be extended to lease-holders along Airport Rd. who currently
economics	do not have access to the electric grid? Electricity is not available to all lease lots.
	This Proposed Action severely affects the quality of life for many residents.

Post-Meeting Errata

Since the Draft EA was made available to the public but prior to the December 12, 2018 public open house, Seward Airport Improvements Project design moved forward. The EA figures that incorporated these design updates were available for public review during the December 12, 2018 public open house.

Following the open house, an Errata was published on the project website document library at <www.dot.state.ak.us/creg/sewardairport/documents.shtml> on December 20, 2018 to detail changes to the EA figures and document and highlight where they could be found. The Errata also extended the public comment period through January 9, 2019; the comments received during this time have been summarized in Table 1 and provided in the attachments. An announcement was distributed via email on December 21, 2018 to approximately 123 recipients. A copy of the Errata, website location, and email announcement and distribution lists are provided in the attachments.

On March 27, 2019, FAA wrote a letter to the City of Seward noting that a public hearing will occur to discuss the proposed project. This letter is also provided in the attachments.

Attachments

Outreach and Advertising
Public Open House Documentation, Comments, and Feedback
Post-Meeting Errata Documentation

December 2018 Outreach and Advertising

Online Notice of Environmental Document Availability and Public Meeting Announcement



The online notice can be downloaded as a PDF file from this link.

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Seward Airport Improvement Project Document Library

Important project reports are available to the public in the project "Document Library," below.

Document Name

 Notice of Opportunity for a Public Meeting and Notice of Availability of Draft Environmental Assessment \$\mu\$_100KB November 2018

November

2018

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- Draft Environmental Assessment 39MB
 - Chapters Draft Environmental Assessment 155MB
 - Appendix A Draft Environmental Assessment 31MB P1-40 3MB, P41-80 13MB, P81-120 12MB,
 P121-160 5MB, P161-200 2MB, P201-223 3MB
 - Appendix B,C,D,E Draft Environmental Assessment 🌽 5мв
- Position Paper: Seward Airport Improvements Selection of the Design Alternative \$\int_{\text{S}}\$ MB

October 2017

September

2017

• Seward Airport Improvements Scoping Report

- Cover and Table of Contents 1.3 MB
- Report: Chapters 1 − 6 №8 MB
- Appendix A Forecast and facility Requirements № 1.8 мв
- Appendix B − Alternatives №4.5 MB
- Appendix C1 − Public Meeting 1 ≥ 2.8 MB
- Appendix C1- Public Meeting 2: Materials 🌽 6 мв
- Appendix C1— Public Meeting 2: Summary №8.2 мв
- Appendix C1- Public Comments 🏂 5 мв
- Appendix C2 Stakeholder Working Group Meeting 1: Invitation MB
- Appendix C2 Stakeholder Working Group Meeting 2: Materials 6.5
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- Appendix C2 Stakeholder Working Group Meeting 2: Summary \$\infty\$5.8
- Appendix C2 Stakeholder Working Group Meeting 3: Materials \$\sum_{8.2}\$
- Appendix C2 Stakeholder Working Group Meeting 3: Presentation
 3 MB
- Appendix C2 Stakeholder Working Group Meeting 3: Summary \$\infty\$9.8
- Appendix C2 Stakeholder Working Group Comments №8.5 мв
- Complete Report №87 MB
- Final Resurrection River Excavation Memo 1/21 MB

July 2016



Seward Airport Improvement Project (#54857)

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Notice of Opportunity for a Public Meeting and Notice of Availability of Draft Environmental Assessment for Seward Airport Improvement Project No. 54857

This project has been developed in accordance with Section 106 of the National Historic Preservation Act; Executive Orders: 11990 (Wetlands Protection), 11988 (Floodplain Protection), 12898 (Environmental Justice), 11593 (Historic Preservation), the Clean Air Act, Clean Water Act, Coastal Zone Management Act, Fish and Wildlife Coordination Act, and U.S. DOT Act Section 4(f).

The Alaska Department of Transportation and Public Facilities (DOT&PF) announces the availability of the Draft Environmental Assessment (EA) for the Seward Airport Improvement Project (project #54867). Seward is located on the Kenai Peninsula at the north end of Resurrection Bay, approximately 75 air miles or 125 highway miles southwest of Anchorage. The DOT&PF proposes to improve the existing Seward Airport. The improved airport will include replacement of a runway and improvements to drainage to mitigate Resurrection River flooding. Construction is anticipated to begin in 2019 or later. The Draft EA addresses the proposed action and potential economic, social, and environmental effects.

A public open house to present the Seward Airport Improvement Project Draft EA is scheduled for December 12, 2018, from 5:00 PM to 7:30 PM, at the K.M. Rae Marine Education Building located at 125 Third Avenue, Seward, Alaska.

The Draft EA is available for review at the DOT&PF Central Region office located at 4111 Aviation Avenue in Anchorage and at the Seward Community Library located at 239 6th Avenue in Seward. The Draft EA is also available on the DOT&PF website at: www.dot.state.ak.us/creg/sewardairport. If you have questions, require additional information, or would like a copy of the EA, please contact Renee Goentzel, Environmental Impact Analyst, at (907) 269-0714, or via email at renee.goentzel@alaska.gov.

Written comments and/or requests for a Public Hearing will be accepted at the address below until January 9, 2018 and should be sent to:

Brian Elliott, Environmental Manager DOT&PF, Preliminary Design & Environmental PO Box 196900 Anchorage, AK 99519-6900

It is the policy of the DOT&PF that no person shall be excluded from participation in, or be denied benefits of any and all programs or activities we provide based on race, religion, color, gender, age, marital status, ability, or national origin, regardless of the funding source including Federal Transit Administration, FAA, Federal Highway Administration, and State of Alaska Funds.

DOT&PF complies with Title II of the Americans with Disabilities Act of 1990. Persons with a hearing impairment can contact the Department at our Telephone Device for the Deaf, number 269-0473. We are also able to offer, upon request, reasonable accommodations for the special needs related to disabilities.

Project Website Updates (Document Library and Current Events)



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 Alternative \$5 MB

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Seward Airport Improvement Project Current Events

PROJECT UPDATE:

Public Meeting. A public meeting is scheduled for December 12, 2018, from 5:00 PM to 7:30 PM, at the K.M. Rae Marine Education Building located at 125 Third Avenue, Seward, Alaska. More information on the meeting is available in the <u>Document Library</u>.

Draft Environmental Document Now Online. The Draft Environmental Assessment is now available in the <u>Document Library.</u>

Phase I. Alternative Selected, Project Scoping Complete, and Scoping Report Now Online DOT&PF has completed the project scoping phase. The Seward Airport Improvements Scoping Report, summarizing the project background (scope, project history, purpose and need, project team); existing conditions; aviation activity and forecast; facility requirements; project alternatives; and environmental conditions is now available in the Document Library.

Alternative 2.2 has been selected as the preferred alternative for this project. A position paper summarizing selection this alternative is now available in the <u>Document Library</u>.

DOT&PF has started Phase II. Environmental Documentation. PDC Inc. Engineers in conjunction with DOT&PF is preparing the Environmental Assessment for the project. Please check back here for updates coming soon.



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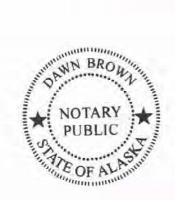
Before me, the undersigned, a notary public, this day personally appeared, Michael Paschall who, being first duly sworn according to law, says that he represents TriDelta, Incorporated, publisher of the Seward Journal, a newspaper of general circulation published in Seward in said Third Judicial District and State of Alaska, and that the advertisement of which the annexed is a true copy, was published in said newspaper on the following day(s):

11/21/18	
and that the rate charged is not in excess of the usual discounts.	e rate charged private individuals, with the
Subscribed and sworn before me this	Michael R. Paschall day of
	Maun Brown

Notary Public in and for the

State of Alaska

My commission expires: \(\frac{\dagger}{\sqrt{2}} \)





Kenai Peninsula Borough Road Service Area Board Meeting

TUESDAY, NOVEMBER 27, 2018 at 7:00 PM

The following RSA Board Meeting will be held in the Assembly Chambers, George A. Navarre Borough Administration Bld, 144 N. Binkley Street, Soldotna.

ITEM A: Call to Order Regular Meeting 7:00 pm
ITEM 8: Roll Call & Establishment of Quorum
ITEM C: Approval of Agenda
ITEM D: Approval of Minutes: October 16, 2018 RSA Board Meeting

ITFM F. Correspondence: None

TITEM E. Public Comments and Presentation (limit 5 minutes per person):

F.1 Public Comments with Prior Notice

A. Lee Wiley, Quality of Grading

B. Carl High, Roads Authority and Maintenance Trade Proposal

F.2. Public Comments & Public Presentation on Any Item

ITEM G: Public Hearings

G.1. Action Items

A. RSA Capital Improvement Project 5 Year List Approval
 B. Roads Authority and Maintenance Trade Proposal
 G.2. Resolutions: None

ITEM H: Other Items

H.1. New Items:
A. RSA Bylaw Revisions

B. Board Requests

ITEM I: Road Director's Report

RSA Equipment: Condition, Service and Usage
 Financial Report

A. Right of Way Regulation and Construction Updat
 S. Capital Improvement Project Update
 ITEM J. Board & Staff Comments
 ITEM K. Notice of Next Regular Meeting

ITEM I · Adjournment

Invited to attend are all members of the public. If you would meeting, please call the Road Service Area office at 262-4427, toll at (800) 477-4427, or email; roads@kpb.

Visit our website at www.kpb.us for copies of the agenda an RSA board packet.

How to get in print



Letters to the Editor

email to news@sewardjournal.com

News releases

email to news@seward ournal.com

Classified advertising

email to ads@sewardjournel.com or submit online at

www.sewardjournal.com

Kenai Peninsula Borough Notice of Road Service Area Board Work Session

TUESDAY, NOVEMBER 27, 2018 at 6:00 PM

sion will be held in the Assembly Chambers, The following RSA Work Sea

George A. Navarre Borough Administration Bld, 144 N. Binkley Street, Soldotna.

ris: Work Session to Review Liquid to Natural Gas (LNS) Survey

and the Impact on KPB Road System Borough-Wide

ITEM P. RSA Bylaw Revision Discussion

M C: Adjournment



Seward Airport Improvement Project Project # Z548570000

Public Open House and Availability of Draft Environmental Assessment

The Alaska Department of Transportation and Public Facilities (DOT&PF), with the Federal Aviation Administration (FAA), announces the availability of the Draft Environmental Assessment (EA) for the Seward Airport Improvement Project. The Draft EA addresses the proposed action and potential economic, social, and

A public open house to present the Seward Airport Improvement Project Draft EA is scheduled

Public Open House

Date: Wednesday, December 12, 2018, 5:00 pm to 7:30 pm (stop by any time)

Location: K.M. Rae Marine Education Building, 125 Third Avenue, Seward

The Draft EA is available for review at the DOT&PF Central Region office located at 4111 Aviation Avenue in Anchorage and at the Seward Community Library located at 239 6th Avenue in Seward. The Draft EA is also available on the DOT&PF website at: www.dot.state.ak.us/creg/sewardairport.

If you have questions, require additional information, or would like a copy of the Draft EA, attend the open house, visit the website at www.dot.state.ak.us/creg/sewardairport, email solsticeak@solsticeak.com, or mail comments to Robin Reich, Public Involvement Coordinator, Solstice Alaska Consulting, 2607 Fairbanks Street, Sulte B, Anchorage, AK 99503 by December 20, 2018. You may also contact Renee Goentzel, Environmental Impact Analyst, at (907) 269-0714 or via email at renee.goentzel@alaska.gov.

Requests for a Public Hearing will be accepted at the address below until December 20, 2018, and should be

Brian Elliott, Environmental Manager

DOT&PF, Preliminary Design & Environmental

Anchorage, AK 99519-6900

For more information or to join the mailing list, visit www.dot.state.ak.us/creg/sewardairport/-

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www.tundracomics.com



Daily Event Updates at www.sewardjournal.com

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UNITED STATES OF AMERICA STATE OF ALASKA THIRD JUDICIAL DISTRICT

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11/28/18	
and that the rate charged is not in excess of the r	rate charged private individuals, with the
usual discounts.	MIN POLL
Subscribed and sworn before me this	Michael R. Paschall day of
100ember , 2018.	(MILLY) BRADADA)

Notary Public in and for the

My commission expires: 10/2/21

State of Alaska



Council puts off option to hire temporary police officers

By Kyle Walker

The Seward City Council on Monday postponed a measure that would have allowed Interim City Manager Jeff Bridges to fill vacancies in the police department with temporary hires paid at higher wages, provided the new officers forego benefits.

The council voted 5-2 in favor of postponement. Council Members Sharyl Seese and Jeremy Horn voted

The police department faces at least two vacancies but has no quick means of filling them with permanent hires, Bridges said. One internal candidate is interested in becoming an officer, but would first require training at one of the state's two police academies. Other candidates are sparse, Bridges said, which motivated him to look to temporary hires as a means of filling the gap.

The Seward City Code already permits the city manager to hire so-called 'term' employees for a period greater than nine months but less than two years. Bridges had sought the authority to pay these temporary hires at a greater rate than laid out in the city's pay plan, which would help the city attract qualified candidates, particularly retired law enforcement officers, Bridges said.

Any officer who hires on at the higher rate would have to forego benefits. The resulting savings would pay for the higher wages, Bridges and the council

The measure stirred up an argument in the council chambers, with some council members pushing for greater restrictions or more specificity about the reasons for temporary hiring.

Council Member Kelley Lane objected to several elements of the measure, arguing in effect that it is an effort at union busting.

"This makes me very uncomfortable because we are in the middle of union negotiation," Lane said. "This is really borderline in terms of ethical treatment of the union."

Seward Public Employee's Association President Patrick Messmer, also an officer in the Seward Police Department, had sent the council a letter objecting to the measure on Nov. 24. Messmer raised concerns similar to those expressed by Lane, saying he feared the measure would allow the administration to replace union positions with temporary employees.

Messmer also said in the letter that the job vacancy in the police department had not been advertised on several online job boards, an issue also raised by Council Member Suzanne Towsley.

Bridges publicly repudiated these concerns at the meeting.

"I would always put public safety above the interests of an employee union," Bridges said. "Had the union president followed the chair of command and spoken to the appointing authority – which is me – he

would have learned the truth and the facts, which are not contained in that letter."

"To me, this makes too much common sense to be having this conversation," he added. "I don't get it. You're being offered experienced officers."

The Seward Journal found a listing for a "Patrol Officer Recruit" on ALEXsys, a State of Alaska job search site and one of the sites listed by Messmer. The position also appears on the online classifieds of the Alaska Municipal League.

Messmer declined to comment. Gene Christian, the local representative of the Alaska Public Employee's Association, could not be reached for comment on Tuesday.

The city and the union are currently negotiating a contract that will potentially cover the majority of the city's full-time employees. Each employee will have the option to opt out of the contract, however, due to measures adopted by the council last

Mayor David Squires first suggested postponing the measure, asking that the administration include more details in the resolution. He specifically asked that the binding portion of the resolution include the two-year time limit on temporary hires. That restriction is already a part of the city code.

Squires also asked that the resolution give reasons for hiring temporary officers, "so that the public can see why we're going to a temporary

Tyler Mallory, an officer in the Seward Police Department, told the council that postponement was the wrong decision.

"We all want long-term [hires], but it's not happening right now," Mallory said. "There's a shortage across the country."

"I know you got an email from the union president, and I want to tell you, he doesn't speak for me." Mallory went on. "I have a wife and a kid, and I want to go home to them and spend time with them. Right now, the way the schedule is going, that isn't happening."

Seward Windsong Lodge breaks ground on new expansion

From Pursuit

Seward Windsong Lodge is adding three new guest buildings to the wilderness-inspired property. Nestled on the edge of the Chugach National forest and less than four miles from the bustling port town of Seward, the Windsong Lodge is one of nuska's top recommended properties for visitors looking

to immerse themselves within a national park.

The expansion, led by Harmon Construction of Seward and Gordon Thompson Architect Inc. out of Anchorage, will feature 36 new guestrooms, six of which will be suites. The new addition to the lodge is expected to open June 1, 2019.

"Upon completion, this expansion will complement our current 180 guestrooms, main lodge and gourmet dining experience at the popular Resurrection Roadhouse, all located just minutes from the eward harbor," said Luke oni, General Manager for eward Windsong Lodge. The new premium rooms will feature contemporary take on ge design, alongside technology and comforts, while the latest mforts, aceful oasis in offering a the middle o lush temperate rainforest.

"As the gateway to stunning

glaciers, fjords and abundant wildlife of Kenai Fjords National Park, Seward is an important economic driver to the sustainability and growth of tourism in the region," said Fernando Salvador, Vice President & General Manager of the Alaska Collection. "As an organization we are dedicated to enhancing that growth, and are pleased to offer travelers an elevated hotel experience during their visit to Southcentral Alaska."

The Seward Windsong Lodge is located along the winding road that leads to the spectacular Exit Glacier, Resurrection River and plenty of hiking and mountain bike trails. Open mid-May through mid-September, guestrooms include Standard Rooms, Standard Rooms with Private Deck, and Suites. The new expansion will include new Premium Deck Rooms and Premium Suites in 2019.



Seward Airport Improvement Project Project # Z548570000

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If you have questions, require additional information, or would like a copy of the Draft EA, attend the open house, visit the website at www.dot.state.ak.us/creg/sewardairport, email solsticeak@solsticeak.com, or mail comments to Robin Reich, Public Involvement Coordinator, Solstice Alaska Consulting, 2607 Fairbanks Street, Suite B, Anchorage, AK 99503 by December 20, 2018. You may also contact Renee Goentzel, Environmental Impact Analyst, at (907) 269-0714 or via email at renee goentzel@alaska.gov.

Requests for a Public Hearing will be accepted at the address below until December 20, 2018, and should be

Brian Elliott, Environmental Manager

DOT&PF, Preliminary Design & Environmental

PO Box 196900

Anchorage, AK 99519-6900

For more information or to join the mailing list, visit www.dot.state.ak.us/creg/sewardairport/.

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■ City to Look at Code Enforcement Options, pg. 1

people along.

Interim Cit Manager Jeff Bridges sought to reassure those who worried about the public reaction to an enforcement drive, saying that the city would give a lengthy grace period in many cases.

"The biggest issue in the room hat I hear is that people will feel that they're being proceed on." Bridges said. "The best way to make people not feel picked on is to educate them a lot. And if you go down the path you're going, you do a year of notice letters. You're not going to issue violations."

The outcome of the discussion was not clear – the room seemed divided between those in favor of "enforcement" and those in favor of "cducation" – but city officials said that they would continue the conversation, including a possible joint work session with the City Council.

"I'm not interested in sending out violation letters," Bridges said. "I'm interested in sending out corrective action letters. But I think that there needs to be another conversation about where we go with this."

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	note changed private individuals with the
and that the rate charged is not in excess of the usual discounts.	rate charged private individuals, with the
Subscribed and sworn before me this	Michael R. Paschall day of
December, 2018.	Notary Public in and for the State of Alaska My commission expires: 0/2/2

NOTARY PUBLIC

K9 Trooper assigned to Seward

Kyle Walker

eward's newest law enforcement officer expected to never be a police officer. Growing up in Eagle River, Christine Joslin sparred with authority, she says, always pushing the boundaries of the rules.

A little older, and with a military career behind her, Joslin feels differently about her role - less the rebel and more interested in helping those around her by means of the law.

Now a K-9 handler with the Alaska State Troopers, Joslin joined the Seward trooper post in November with her partner, a Belgian Malinois (pronounced "mal-in-wa") named Scout. Joslin and Scout have worked together for a little over two years, but both have histories with state law enforcement.

Scout has actually been with the Troopers longer five years to Joslin's four but Joslin has longer track record in public service. After studying international conflict and intelligence at Ohio State University, Joslin served in the U. S. Navy from 2009 to 2015.

"I came to the Alaska State Troopers with the intention of becoming an investigator," Joslin said. The idea of solving crimes - interviewing witnesses, compiling evidence – appealed to her. "But I fell in love with patrol work."

When you first start out, it's the car chases and catching bad guys, that adrenaline rush," Joslin said, speaking of her early experience in law enforcement. "Now you realize that all that stuff can kill you."

Around two years ago, Joslin paired up with a four-legged member of the Alaska State Troopers - a dog named Scout, who had been trained to detect controlled substances and to locate and apprehend suspects.

Scout is a Belgian Malinois, a breed that sees frequent service in military and police applications. Seen without his uniformed handler, it would be difficult to tell that Scout is a highly trained member of the Seward Trooper post. He is friendly and energetic and loves to play fetch.

After a reporter once threw for Scout his favorite toy, an orange football, he returned repeatedly, always bringing the ball back to the reporter until Joslin commanded him to lie

The impression that Scout is just a particularly friendly Malinois vanishes at a word from Joslin, whom he obeys almost immediately.

Joslin and Scout attended special academy together before taking on their new role as a K9 unit. Although Scout had already been certified as a police dog, he joined Joslin during her training so that the two would get used to one another.

Scout fills a handful of niches for the Troopers. As a dualpurpose dog, Joslin said, his main roles are in drug detection and suspect apprehension. Scout recognizes the scent of narcotics and can locate hidden caches that might escape detection by human searchers. He is also capable of entering buildings and searching them room-by-room, or of tracking suspects who have fled on foot.

"Ît's all a game of hide-and-seek to him," Joslin said. "He's a champion at hide-and-seek."

Their work together means that Joslin and Scout are close partners, closer perhaps than some human partners.

"He comes home me every night. We end up spending more time with our dogs than we do with our family," she said of herself and other dog handlers.

At the same time that it enhances the job, that



Trooper Christine Joslin with her canine partner, Scout. Photo by Kyle Walker.

emotional bond has the potential to complicate their work. In a sense, Scout is a tool, trained to do work of which humans are incapable and to do jobs that might be more dangerous for a person. But he is also a companion.

"If it came down to it, his job is to take a bullet. His job is to save a trooper's life," Joslin said. "You can't be skittish about sending him into a building. But at the same time, he's your



Contact Michael Paschall at 460-8629 or ads@sewardiournal.com for information about advertising in print and online.

Seward Journal



City of Seward Surplus Property Sale by Sealed Bid

Pursuant to the Seward City Code, notice is hereby given that surplus items are offered for sale. The date of the sale will be December 20, 2018 beginning at 9000am in the City Gounell Chambers.

Bidders are encouraged to inspect the items prior to the sale. The items are at several locations as indicated on the list. The items can be viewed using the following schedule:

Monday – Friday:

Library, 12:00-1:00pm or for an appointment call Valarie @ 224-4008;

City Shop, 11:00 am (must check in with Public Works office upon arrival);

City Hall, 40mex 1:30 mm; City Hall, 40mex 130 mm; City Hall, 40mex 130 mm;

City Shop, 11:00 am (must checkin with Public Works office upon arrival)
City Hall Annex, 130 pm; City Hall, (downstairs) 2:00pm.

Monday – Thursday: P&R Warehouse, 2:30-3:30 or for an appointment call Tish @ 224-4055.
Tuesday: Thursday: Electric Warehouse, 9am -12 noon.
Contact the Finance Department at City Hall, 4:10 Adams or call 224-4066 for more informatio
All items are offered for sale "as is", where is, and no warranties or guarantees of any kind are ma
or implied. The successful bidder will be required to remove the item(s) within three (3) work
days. The City reserves the right to reject any bid. Bid deposits of unsuccessful bidders will returned within two (2) business days.

- To Place A Sealed Bid:

 1. Write the item number and the amount of the bid on a piece of paper. A 10% bid deposit must be included if the bid is greater than \$50. The total bid amount mobe included if the bid is \$50 or less. NO CASH BIDS (if any are received, the state of the bid is \$50 or less. NO CASH BIDS (if any are received, the state of the bid is \$50 or less. NO CASH BIDS (if any are received, the state of the bid is \$50 or less. NO CASH BIDS (if any are received, the bid is any are received, the bid is \$50 or less. NO CASH BIDS (if any are received, the bid any are recei will be returned as void). Only personal checks, money orders, or certified che made payable to the City of Seward will be accepted.

 2. One bid per envelope. Include your name, address, and telephone number in the envelope.
- the envelope.

 3. Sealed bids are to be submitted to the City Clerk's office, each in a separate
- ivelope and marked on the outside only Surplus Sale Item #___.

 DS MUST BE RECEIVED IN THE CITY CLERK'S OFFICE BY 4:00 PM

City Hall Annex

Seward Journal Harbor Building

A complete list can be viewed at City Hall, Seward Community Library and Mu Sale Items titled: 2018 Surplus List

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Seward Airport Improvement Project Project # Z548570000

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Email Announcements and Distribution Lists

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From: Solstice AK

Sent: Wednesday, November 28, 2018 3:11 PM

To: Solstice AK

Cc: 'Beaton, Barbara J (DOT)'; 'travis.dennison@alaska.gov'; 'RoyceConlon@pdceng.com';

Erica Betts; Robin Reich; 'Olivia Cohn'

Subject: Seward Airport Improvements: Draft Environmental Assessment Available and Public

Open House

Attachments: SewardAirport-EnvAssessmentandPublicOpenHouse.pdf

Seward Airport Improvements Project (Project #Z548570000) Announcement

The Alaska Department of Transportation and Public Facilities, with the Federal Aviation Administration, announces availability of the Draft Environmental Assessment (EA) and invites you to a public open house to discuss the Draft EA!

See the attached postcard for details.

Seward Airport Improvements Project (Project #Z548570000)



A project to reduce damage from recurrent flooding and correct deficiencies based on the airport's forecasted function and Federal Aviation Administration design standards.



Visit the Project Website: www.dot.state.ak.us/creg/sewardairport

Attend the December 12, 2018 Public Open House to discuss the Draft Environmental Assessment!

DOT&PF operates Federal Programs without regard to race, color, national origin, sex, age, or disability. The full Title VI Nondiscrimination Policy Statement can be found at http://dot.alaska.gov/tvi_statement.shtml.



STATE OF ALASKA
DEPARTMENT OF
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Seward Airport Improvements Project

Project #Z548570000

The Alaska Department of Transportation and Public Facilities (DOT&PF), with the Federal Aviation Administration, announces <u>availability of the Draft Environmental Assessment (EA)</u> and invites you to a <u>public open house</u> to discuss the Draft EA!

The **Draft EA** addresses the proposed action and potential economic, social, and environmental effects.

Review a hard copy or read it online:

View a hard copy at one of the following locations:

Seward Community Library & Museum located at 239 6th Avenue, Seward

DOT&PF Central Region Office located at 4111 Aviation Avenue, Anchorage

Download the Draft EA at:

www.dot.state.ak.us/creg/sewardairport/documents.shtml

For more information, attend the open house or contact us

Attend the Public Open House

WHEN: Wednesday, December 12, 2018

5:00 pm to 7:30 pm

WHERE: K.M. Rae Marine Education Building

125 Third Avenue, Seward

Stop by any time during open hours to <u>discuss and</u> comment on the Draft EA

Questions? Contact us for more information!

Robin Reich, Public Involvement Coordinator Solstice Alaska Consulting, Inc.

2607 Fairbanks St., Ste. B, Anchorage, AK 99503 solsticeak@solsticeak.com

Visit the Project Website at: www.dot.state.ak.us/creg/sewardairport

Seward Airport Improvements, November 28, 2018 Email Recipients

Туре	First Name	Last Name	Title	Organization/Agency	Email
SWG	Brandon	Anderson		Alaska Wing Civil Air Patrol	alaskaba@live.com;
					bca.alaska@gmail.com
Agency Scoping	William	Ashton	Environmental Engineer	ADEC, Division of Water, Wastewater Discharge Authorization, Stormwater and	william.ashton@alaska.gov
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Past Mailing List	Sarah Eddie	Aslam	Fire Chief	City of Sourced	
City of Seward Agency Scoping; City of	Dwayne	Athey Atwood	Planning Technician	City of Seward City of Seward	eathey@cityofseward.net datwood@cityofseward.net
Seward	Dwayne	Atwood	Fidining reclinician	City of Seward	<u>uatwood@cityorseward.net</u>
Provided Comment	Jamie	Auletta			jamie.lynn.auletta@gmail.com
Agency Scoping	Greg	Balogh	Field Office Supervisor for the Protected Resources Division	National Marine Fisheries Service (NMFS)	greg.balogh@noaa.gov
Project Team	Barbara	Beaton	Project Manager	Alaska Department of Transportation & Public Facilities, Central Region, Aviation Design	barbara.beaton@alaska.gov
Past Mailing List	Louis	Bencardino			bencardinol@arr.com
Past Mailing List	Max	Best	Borough Planning Director	Kenai Peninsula Borough	mbest@borough.kenai.ak.us
Past Mailing List	Joselyn	Biloon	Area Planner	Alaska Department of Transportation & Public Facilities	joselyn.biloon@alaska.gov
Agency Scoping	Judy	Bittner		ADNR, Division of Parks & Outdoor Recreation (DPOR), State Historic Preservation Officer (SHPO)	oha.revcomp@alaska.gov
Agency Scoping	Brian	Blossom		AK Department of Fish and Game (ADF&G), Division of Habitat	brian.blossom@alaska.gov
Project Team	Mark	Boydston	Environmental Impact Analyst	DOT&PF	mark.boydston@alaska.gov
SWG, Agency Scoping, City of Seward	Jeff	Bridges	Interim City Manager	City of Seward	ibridges@cityofseward.net
Past Mailing List	Jamie	Brooks	Airport Leasing Specialist III	CR-Aviation Leasing, AK DOT&PF	jamie.brooks@alaska.gov
Past Mailing List	Russ	Burnand			trailrider@hotmail.com
Agency Scoping	Lucas	Byker		AK Department of Fish and Game (ADF&G), Division of Habitat	lucas.byker@alaska.gov
Past Mailing List	Rissie	Casagranda	Council Member	City of Seward	rcasagranda@cityofseward.net
Elected Official	Rep. Mike	Chenault	State Representative - District 29	Alaska State Legislature	Representative.Mike.Chenault@akleg.gov
Past Mailing List	Stu	Clark			Stuclark@seward.net
City of Seward	Tom	Clemons	Police Chief	City of Seward	tclemons@cityofseward.net
Past Mailing List	Cindy	Clock	Executive Director	Seward Chamber of Commerce	director@seward.net
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Reminder: Wed., 12/12 Seward Airport Improvements Public Open House

Subject:

Reminder: You are invited to attend the Seward Airport Improvements Project public open house to learn about the Draft **Environmental Assessment!** See below for details regarding this Wednesday, December 12, 2018 (between 5:00 pm and 7:30 pm) open house in Seward!



Seward Airport Improvements Project

Project #2548570000

Aviation Administration, announces availability of the Draft Environmental Assessment (EA) The Alaska Department of Transportation and Public Facilities (DOT&PF), with the Federal and invites you to a public open house to discuss the Draft EA!

The **Draft EA** addresses the proposed action and potential economic, social, and environmental effects.

Review a hard copy or read it online:

View a hard copy at one of the following locations:

Seward Community Library & Museum located at

239 6th Avenue, Seward

DOT&PF Central Region Office located at

4111 Aviation Avenue, Anchorage

Download the Draft EA at:

www.dot.state.ak.us/creg/sewardairport/documents.shtml

For more information, attend the open house or contact us

Attend the Public Open House

WHEN: Wednesday, December 12, 2018

5:00 pm to 7:30 pm

WHERE: K.M. Rae Marine Education Building

125 Third Avenue, Seward

Stop by any time during open hours to discuss and comment on the Draft EA

Questions? Contact us for more information!

Robin Reich, Public Involvement Coordinator Solstice Alaska Consulting, Inc. 2607 Fairbanks St., Ste. B, Anchorage, AK 99503 solsticeak@solsticeak.com

Visit the Project Website at: www.dot.state.ak.us/creg/sewardairport

Project Website: www.dot.state.ak.us/creg/sewardairport

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Mailer and Distribution Lists

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Attend the December 12, 2018 Public Open House to discuss the Draft Environmental Assessment!

DOT&PF operates Federal Programs without regard to race, color, national origin, sex, age, or disability. The full Title VI Nondiscrimination Policy Statement can be found at http://dot.alaska.gov/tvi_statement.shtml.

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Seward Airport Improvements Project

Project #Z548570000

The Alaska Department of Transportation and Public Facilities (DOT&PF), with the Federal Aviation Administration, announces <u>availability of the Draft Environmental Assessment (EA)</u> and invites you to a <u>public open house</u> to discuss the Draft EA!

The **Draft EA** addresses the proposed action and potential economic, social, and environmental effects.

Review a hard copy or read it online:

View a hard copy at one of the following locations:

Seward Community Library & Museum located at 239 6th Avenue, Seward

DOT&PF Central Region Office located at 4111 Aviation Avenue, Anchorage

Download the Draft EA at:

www.dot.state.ak.us/creg/sewardairport/documents.shtml

For more information, attend the open house or contact us

Attend the Public Open House

WHEN: Wednesday, December 12, 2018

5:00 pm to 7:30 pm

WHERE: K.M. Rae Marine Education Building

125 Third Avenue, Seward

Stop by any time during open hours to <u>discuss and</u> comment on the Draft EA

Questions? Contact us for more information!

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Visit the Project Website at: www.dot.state.ak.us/creg/sewardairport

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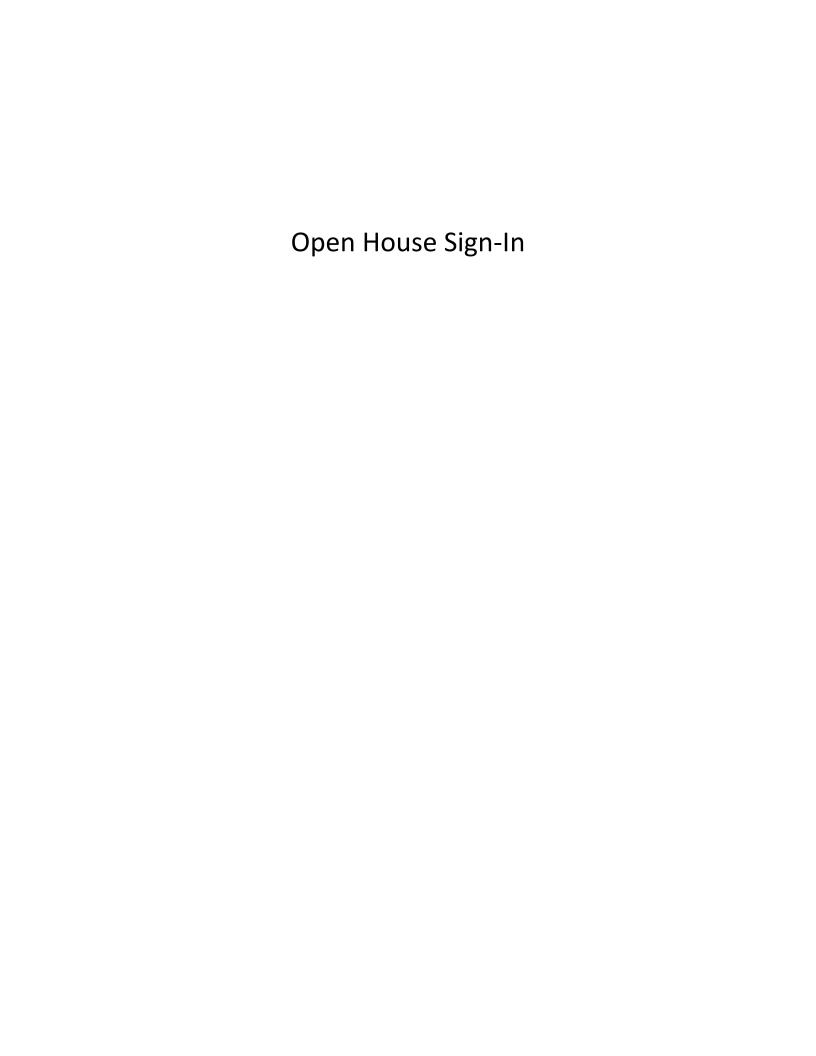
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			Alaska Airmen Association	4200 Floatplane Drive	Anchorage	AK	99502
		Public Information Center	Alaska Dept. of Natural Resources	550 W. 7th Ave #1660	Anchorage	AK	99501
			Alaska SeaLife Center	P.O. Box 1329	Seward	AK	99664
			Civil Air Patrol	PO Box 6014	JBER	AK	90266
			Eastern Kenai Peninsula Environmental Action Association	PO Box 1092	Seward	AK	99664
		Real Estate and Utilities Branch	БАА	222 W. 7th Ave #14	Anchorage	AK	99513
			Harbor Fuel Service	PO Box 1189	Seward	AK	99664
			Kenai Fjords National Park	PO Box 1727	Seward	AK	99664
		Borough Planning	Kenai Peninsula Borough	PO Box 333	Seward	AK	99664

First Name	Last Name	Title	Organization/Agency	Mailing	City	State	Zip Code
		City of Seward Representative	Kenai Peninsula Borough Economic,	Kenai Spur Highway Suite 103- Kenai	103- Kenai	AK	99611
		14896	Development District, Inc.	٨			
			Leirer Family Limited Partnership	PO Box 524	Seward	AK	99664
			Metco Properties	2701 Seward Hwy	Seward	AK	99664
			Providence Seward Medical Center	P.O. Box 365	Seward	AK	99664
			Scenic Mountain Air, Inc.	PO Box 4	Moose Pass	AK	99631
		c/o Carolyn Hoseth, Personal Representative	Willard Midbey and Thomas B. Hicklin	PO Box 183	Dillingham	AK	99576
		Aircraft Owner		33607 Nash Rd	Seward	AK	99664

December 2018 Public Open House Documentation, Comments, and Feedback

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Seward Airport Improvements Project (#Z548570000)

Voluntary Information Requested by the Civil Rights Office of the Alaska Department of

Fransportation and Public Facilities

Race (Circle)

Gender (Circle)

Public Open House • Meeting #3 • December 12, 2018

Thank you for your attendance today. Please sign in (legible print is appreciated)!

Black/Hispanic/Asian/Pacific Islander/Other Black/Hispanic/Asian/Pacific Islander/Other Black/Hispanic/Asian/Pacific Islander/Other Black/Hispanic/Asian/Pacific Islander/Other Black/Hispanic/Asian/Pacific Islander/Other Black/Hispanic/Asian/Pacific Islander/Other Slack/Hispanic/Asian/Pacific Islander/Other Black/Hispanic/Asian/Pacific Islander/Other Black/Hispanic/Asian/Pacific Islander/Other Black/Hispanic/Asian/Pacific Islander/Other White/Alaska Native/Native American/ (White)/Alaska Native/Native American/ (White/Alaska Native/Native American/ White/Alaska Native/Native American/ White/Alaska Native/Native American/ White/Alaska Native/Native American/ Male/Female Male/Female AK DEB QUVE. CCVM Malegremale Male/Female Male/Female Male/Female (Male/Female Male/Female Male/Female Maje/Female Seward, AK 99664 tylerpelo. 308@srail. reaging oyahor, con Scherrer @ gar, nd City of Sew and, net phickoxe atyot C. W. y Sewant, not Grant Seward. dougentro **Email Address** sendry. nex TRIBER O Kelley@ AD+2 Sevard, Allaguan Saward AK 99669 12921 Heath Ceelam georgy ALC Seward AK 00 170x 87 Mailing Address Po Pox 52x 80 B 374 P.O. BOX 2473 Seward Po Bop 1233 12. BOX 167 seward 70 Bax 167 Doug Schoossler Steve Leirer DUK MAROLF 294 SCIBERS Franca Howon Kelley Lane Name

Project Website: www.dot.state.ak.us/creg/sewardairport

* The purpose of requesting this information is to ensure fair and equal representation by the public in all projects and programs administered by the Alaska Department of Transportation and Public Facilities.

Seward Airport Improvements Project (#Z548570000)

Thank you for your attendance today. Please sign in (legible print is appreciated)

3lack/Hispanic/Asian/Pacific Islander/Other Black/Hispanic/Asian/Pacific Islander/Other Black/Hispanjc/Asian/Pacific Islander/Other White/Alaska Native/Native American/ Voluntary Information Requested by the Civil Rights Office of the Alaska Department of **Transportation and Public Facilities** Gender (Circle) Race (Circle) Male/Female Male/Female warsheldbewle whotonal materemate Male/Female Male/Female Male/Female Male/Female Male/Female EVENYN, 18M7260 YOLDO MAIENFEMAIR Pgillis Ocity of spward-net Male/Female C. Sn 2 @ call bo. 60m hotmailicon Mccartyaulen e Veloo **Email Address** Savahn@alaska Seal fe org Roof Seward, AK 99664 Softbaug 9060 Public Open House • Meeting #3 • December 12, 2018 PO Soy 691, ALC 410 Adams St. Seward My 99664 **Mailing Address** Po Box 3446 P.O BOX 3061 Served, AK Sex X Sex PO BOX 942 Sanad Seward (5m/Swold JM McGracken Joses Swoot M McCarty Jane Belovarac Caitlin DeGrane Evelyn Lontz YARRICK Gillis Sarah Menyla Name

Project Website: www.dot.state.ak.us/creg/sewardairport

^{*} The purpose of requesting this information is to ensure fair and equal representation by the public in all projects and programs administered by the Alaska Department of Transportation and Public Facilities.

Seward Airport Improvements Project (#Z548570000)

Public Open House • Meeting #3 • December 12, 2018

Thank you for your attendance today. Please sign in (legible print is appreciated)!

Voluntary Information Requested by the Civil Rights Office of the Alaska Department of Transportation and Public Facilities *

Gender (Circle) Race (Circle)

White/Alaska Native/Native American/ Black/Hispanic/Asian/Pacific Islander/Other	White/Alaska Native/Native American/ Black/Hispanic/Asian/ <u>Pacific Islande</u> r/Other	White/Alaska Native/Native American/ Black/Hispanic/Asian/Pacific Islander/Other							
Male/Female	Male/Female	Male/Female	Male/Female	Male/Female	Male(Female	Male/Female	Male/Female	Male/Female	Male/Female
Email Address	althaclaan 84 Rgud Angle Fremale	RichardHockingeakinet	ganser@akinet	1 linvillegakin	9664 lauracexitmania com	seanme lynden.com	sists (lechanial com		
Mailing Address	Anthomy Broundar P. D. Mork 28914 garley	Po Box 391 99604	Po Box 1141 99664	PO Box 1753 99664	Po Box 3752 99664	Ave. 9669	Box 7363 Seward AK9864		
Name	Andromy Brought	Richard Hocking	Mal & Lanson	Robert Linnille	Laura Schneider	Sean Mckeown	Sandy Stille		

Project Website: www.dot.state.ak.us/creg/sewardairport

* The purpose of requesting this information is to ensure fair and equal representation by the public in all projects and programs administered by the Alaska Department of Transportation and Public Facilities.

Seward Airport Improvements Project (#2548570000)

Public Open House • Meeting #3 • December 12, 2018

Thank you for your attendance today. Please sign in (legible print is appreciated)!

Voluntary Information Requested by the Civil Rights Office of the Alaska Department of Transportation and Public Facilities *

Gender (Circle) Race (Circle)

| White/Alaska Native/Native American/
Black/Hispanic/Asian/Pacific Islander/Other |
|---|---|---|---|---|---|---|---|---|---|
| Male/Female | Male/Female | Male/Female | Male/Female | Male Female | Male/Female | Male/Female | Male/Female | Male/Female | Male/Female |
| Email Address | patricoaling. 1103
Ogmail. com | 7 | donald hannale | janaiz Jann duk | | | | | |
| Mailing Address | POPY 1753 | | P.b. Box 87 | 5.0 BOX 3472 | | | | | |
| Name | Patricia Cinville | Reed Lane | An Hanne | Jamie Aucto | | | | | |

Project Website: www.dot.state.ak.us/creg/sewardairport

* The purpose of requesting this information is to ensure fair and equal representation by the public in all projects and programs administered by the Alaska Department of Transportation and Public Facilities.

Station Overview Handout

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SEWARD AIRPORT IMPROVEMENTS PROJECT (#Z548570000) Public Open House Meeting #3

Wednesday, December 12, 2018

K.M. Rae Marine Education Building, 125 Third Avenue, Seward

Open House Agenda and Overview

Meeting Purpose

laska Aerial Technologies, LLC

- Present the Draft Environmental Assessment (EA)
- Gather input from community members on the Draft EA
- Provide an update regarding Seward Airport Improvements Project next steps

Meeting Format

Open Hours: 5:00 pm to 7:30 pm

Location: K.M Rae Marine Education Building, 125 Third Avenue, Seward

Participation: Please sign in and visit the information stations (see detail below)

Open House Stations

Station #1: Welcome and Sign in

Station #2: Draft Environmental Assessment

 Learn about the proposed action and potential economic, social, and natural environmental effects as presented in the Seward Airport Improvements Project Draft EA

Station #3: Schedule

Learn about the project's next steps

Station #4: Comment Station

 Your written comment is an important part of the process. Find and fill out comment forms here.

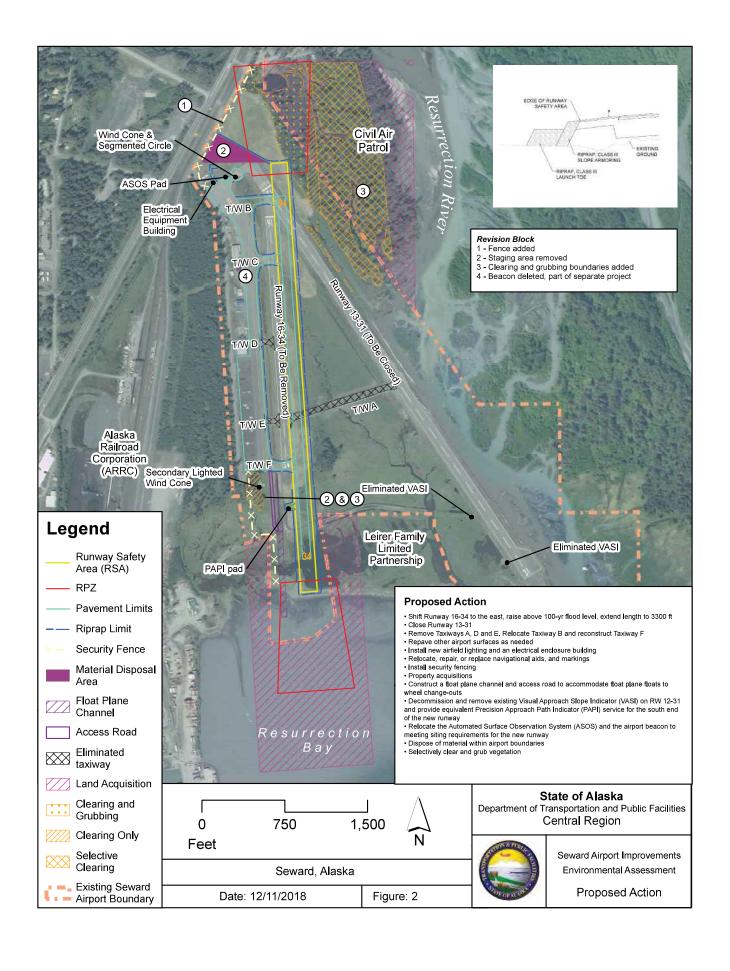
Please remember to submit comments due on the **Draft EA by December 31, 2018.** Thank you for your time and participation!

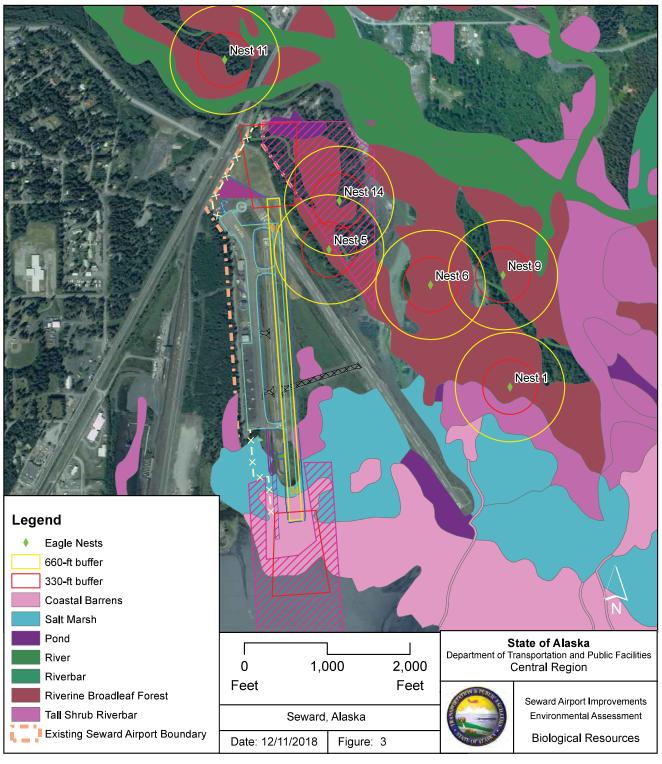
Project Website: www.dot.state.ak.us/creg/sewardairport

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Station Display Posters

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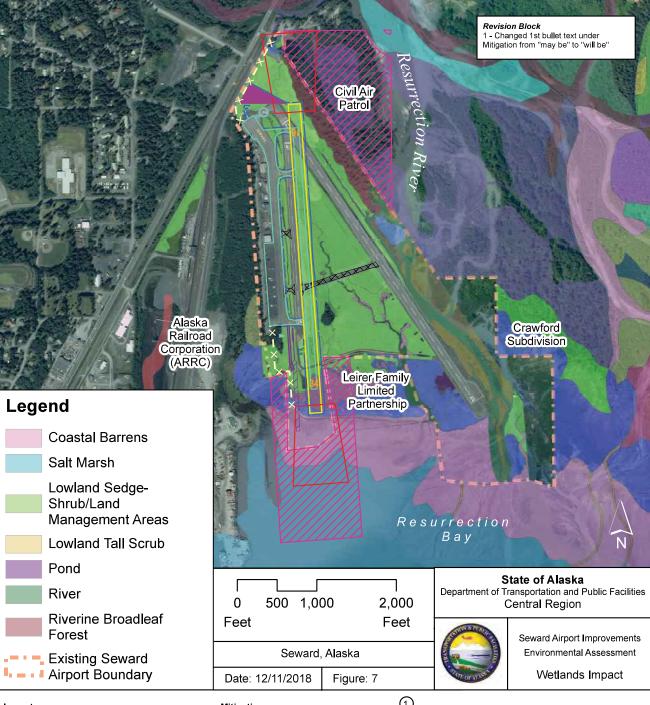




- The Proposed Action could impact habitat of 30 Birds of Conservation Concern; however, habitat is not limited in this area and birds are expected to move to other nearby locations.
- It would minorly impact Essential Fish Habitat (EFH) where instream work occurs.
- It could cause only minor loss to plants or wildlife, and it is not expected to impact Endangered Species Act-listed species, their habitats, or wildlife population trends.

Mitigation

- The Proposed Action will avoid vegetative clearing, excavation, and placement of fill on or over functional bird habitat, including the Arctic Tern nesting colony, during U.S. Fish and Wildlife Service recommended time guidelines for southcentral Alaska.
- It will mitigate impacts to EFH through Best Management Practices, including 20-foot vegetated buffers around constructed embankments that reduce sedimentation in streams.

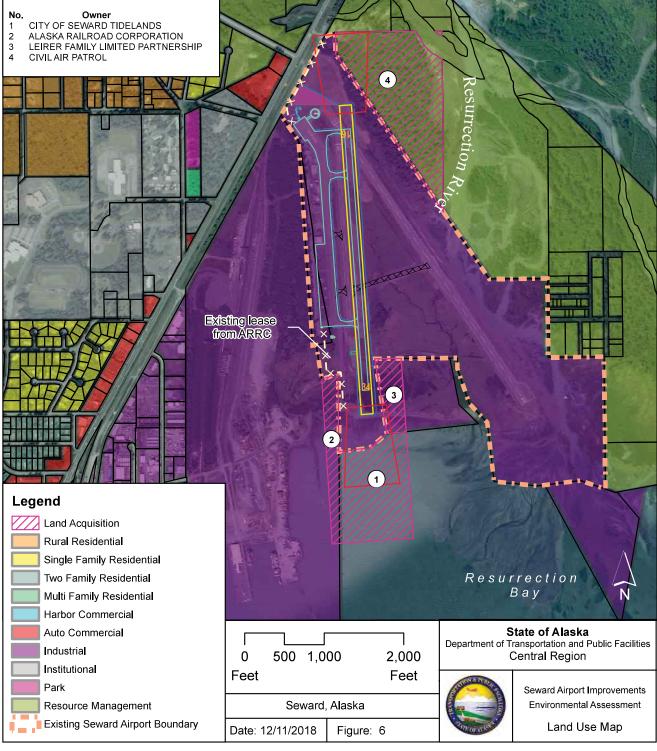


- The Proposed Action would impact approximately 25 acres of wetlands.
- The Proposed Action would not adversely impact municipal water source protections or substantially reduce the natural systems' ability to retain floodwater or storm water runoff.
- The project impacts 3.33 acres of wetlands with high functional ranking for providing wildlife habitat; no other important wildlife habitats would be impacted, and no secondary activities that increase impacts to airport or surrounding wetlands would occur. The Proposed Action is consistent with State wetland strategies.

Mitigation



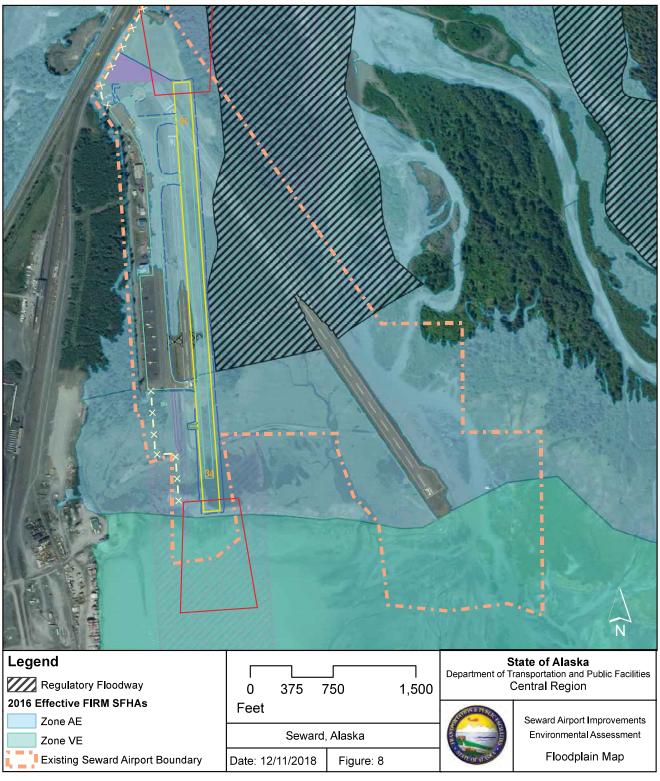
- Subject to evaluation, the total area of fill will be minimized by steepening side slopes.
- Taxiway A removal would allow hydrologic connectivity for wetland reestablishment to return natural wetland functions to an approx. 0.9-acre area.
- Taxiway D and E removal would regrade approx. 0.3 acres to provide connectivity to an infield drainage ditch important for water quality protection, which could become jurisdictional wetlands.
- A wetland area of 11.2 acres would be improved through better connectivity and hydrological functions.
- Vegetated buffers would remain at least 20 feet outside constructed embankments.
- · Material stockpiles would be located in uplands.
- Construction would require revegetation or side slope stabilization during the first growing season to protect against erosion.
- Compensation for unavoidable impacts to approximately 25 acres of wetlands will be provided per USACE Regulatory Guidance Letter ID No. 09-01, with a mitigation plan and compensatory mitigation. This may include an in-lieu fee.



- The Proposed Action is consistent with local zoning codes.
 Noise impacts on adjacent land uses are not expected to change from current conditions.
- Separation distances from the nearest sewage lagoon will continue to meet the
- Separation distances more than 10,000-foot separation guidelines.
 The landfill will remain approximately 7,600 feet northwest of the airport.
 The Proposed Action will increase safety by deterring bird watchers from crossing active air operations.

Mitigation

- No minimization or mitigation requirements have been identified for the Proposed Action.
- No major changes in compatible land use are anticipated.



• The proposed project would result in a Base Flood Elevation Increase between 0.01 and 0.41 feet. The majority of increase is less than 0.10 feet (1.2 inches). The project does not propose development within the regulatory floodway.

Mitigation
• Runway 13-31 will be allowed to overtop and eventually breach. This will restore part of the original floodplain. Riprap will be installed to protect the new runway.



Seward Airport Improvements Project (#Z548570000) **Alternatives Selection**

Alt. 1.1 Dropped from Further

Consideration

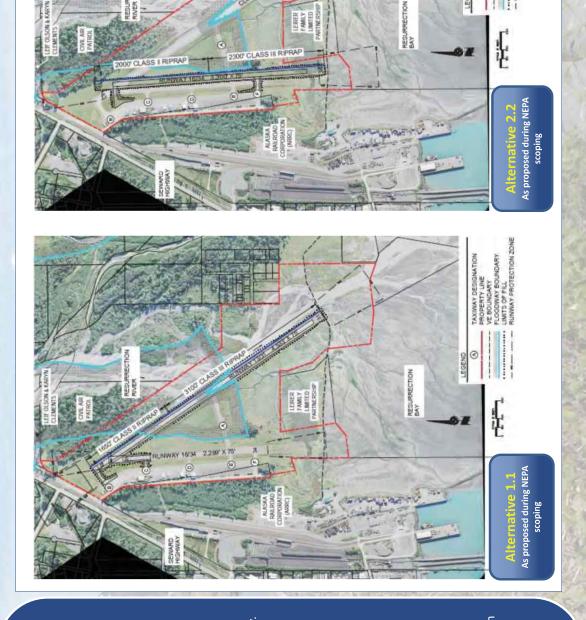
- Providing 2 feet of freeboard above 100-year flood level resulted in a 4-foot base flood elevation (BFE) increase.
- Raising Runway 13-31 an average 4.4 could result in flooding onto an additional 159 acres as compared to No-Build.
 - Development in the floodway and increase to the BFE require Flood Insurance Rate Map (FIRM) and Floodway Map modifications, and extensive hydraulic analysis, regulatory requirements, and public approval.
- Riprap below Resurrection River ordinary high water could impact fish habitat and navigability.

water could impact fish habitat and havigability Floodplain impacts were considered a significant floodplain encroachment as defined by Federal Aviation Administration (FAA) Office of Environment and Energy guidance.

Alt. 2.2 Carried Forward

- Providing 2 feet of freeboard above BFE for Runway 16-34 could result in increase to BFE of up to 0.41 feet (4.92 inches).
 - It would allow for the eventual breaching of Runway 13-31, thereby restoring part of the original floodplain.
- No development in the floodway eliminates requirement for FIRM modification.

Alt. 2.2 does not qualify as a significant floodplain encroachment. FAA guidance states that an alternative with a significant floodplain encroachment should not be selected if a practicable alternative exists.



Alternatives Comparison

Purpose and Need		
Purpose and Need	Proposed Action	No Action
Update the airport facilities to current Federal Aviation Administration Standards and protect the airport from further flood damage	The Proposed Action will meet these aspects of the purpose and need.	The no action alternative would not meet these aspects of the purpose and need.

	Environmental Impacts – Resource Issues		
ĺ		Proposed Action	No Action
	Biological Resources	The Proposed Action could impact habitat of 30 Birds of Conservation Concern; however, habitat is not limited at the head of Resurrection Bay, and it is expected that birds could move to other nearby locations. Non-adverse impacts to Essential Fish Habitat are expected where instream work occurs. The Proposed Action is not anticipated to result in substantial loss of plants or wildlife, and it is not expected to impact Endangered Species Act (ESA)-listed species, their habitats, or wildlife population trends.	No change from current conditions; continued flooding would result in continued airport maintenance activities in adjacent habitats.
	Climate	The Trump administration's Executive Order titled "Presidential Executive Order on Promoting Energy Independence and Economic Growth" stated: (c) The Council on Environmental Quality shall rescind its final guidance entitled "Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews," which is referred to in "Notice of Availability," 81 Fed. Reg. 51866 (August 5, 2016).	The No Action alternative does not address the increase in the frequency and severity of flood events at the airport.
	Wetlands	The Proposed Action would have approximately 25 acres of unavoidable impacts to wetlands. It would not adversely impact municipal water source protections or substantially reduce the natural systems' ability to retain floodwater or storm water runoff. The project impacts 3.33 acres of wetlands that have a high functional ranking for providing wildlife habitat; no other important wildlife habitats would be impacted, and no secondary activities that increase impacts to airport or surrounding wetlands would occur. The Proposed Action is consistent with the State's wetland strategies.	No change from current conditions; continued flooding would result in continued airport maintenance activities in adjacent wetlands.
	Floodplains	The Proposed Action may cause a change to the Base Flood Elevation (BFE) of less than 0.41 feet (4.92 inches). No development would occur within the regulatory floodway.	No change from current conditions; flooding would continue to damage Runway 13-31.
	Surface Waters	The Proposed Action is not expected to impact water quality or contaminate public drinking water. The natural and beneficial water resource values of adjacent water bodies may be impacted.	No change from current conditions.

Alternatives Comparison

Environmental Impacts – Social and Cultural Issues

L	Enviro	nmentai impacts – Sociai and Culturai	issues
		Proposed Action	No Action
	Socioeconomics	The Proposed Action will not adversely affect socioeconomic considerations, including economic growth, physical arrangement of the community, relocation of residents and businesses, local traffic patterns, and the community tax base.	No effect
	Environmental Justice	The Proposed Action will not disproportionately affect environmental justice populations.	No effect
	Children's Health and Safety Risks	The Proposed Action will maintain the airport's ability to support medevac operations utilized by the community, including children.	Continued airport flood impacts may result in a diminished capacity to support larger aircraft utilized by medevac operators.
	Historical, Architectural, Archaeological, and Cultural Resources	A finding of "no historic properties affected" was submitted to the State Historic Preservation Officer on June 5, 2018. Concurrence was received on June 14, 2018.	No effect
	Natural Resources and Energy Supply	No impact to the Seward electric system's supply is anticipated as a result of new airport lighting generating an increase in demand. Fill material in nearby commercial operations is sufficient for the Proposed Action, and existing material sites will not require additional permits or expand existing boundaries. Airport fuel demand is not anticipated to increase.	The No Action Alternative would not result in a change to current energy consumption levels or fill material needs.
	Noise and Noise-Compatible Land Use	The Proposed Action would result in short-term increases in noise associated with construction activities. Long-term noise increases are not anticipated, as the Proposed Action will not result in more frequent aircraft operations or a significant change in aircraft type. Noise levels may increase at the birdwatching area at the southern edge of airport property but is not anticipated to exceed the threshold of significance.	No change from current conditions.
	Land Use	The Proposed Action is consistent with local zoning codes. Noise impacts on adjacent land uses are not expected to change from current conditions. Separation distances from the nearest sewage lagoon will continue to meet the 10,000-foot separation guidelines. The local landfill will remain approx. 7,600 feet northwest of the airport. The new runway length and proposed fencing will increase safety by deterring bird watchers from crossing the active air operations area.	No change from current conditions.
	Hazardous Materials, Solid Waste, and Pollution Prevention	The Proposed Action does not involve a property on the National Priorities List and hazardous waste generation is not anticipated. Construction generated solid waste is not expected to exceed available landfill capacities.	The No Action Alternative would not result in a change from current conditions.

Alternatives Comparison

Environmental Impacts – Cumulative Issues			
	Proposed Action	No Action	
Cumulative Impacts	 The Proposed Action could cumulatively impact the following resource categories at the head of Resurrection Bay area: Biological Resources (fish, Essential Fish Habitat, bird habitat, invasive species) Hazardous Materials, Solid Waste, & Pollution Prevention (solid and construction waste) Land Use (land development) Natural Resources & Energy Supply (utilities and natural resources) Water Resources (Waters of the U.S. and the Resurrection River floodplain) The cumulative impact of the direct and indirect effects of the Proposed Action, when added to the aggregate effects of past, present, and reasonably foreseeable future actions, is not anticipated to cause significant impacts. 	The No Action Alternative would not result in a change from current conditions. Cumulative impacts resulting from past, present, and reasonably foreseeable future actions that include commercial and industrial activities at the head of Resurrection Bay would continue.	

Non-Issues Air Quality Coastal Resources DOT&PF Section 4(f) Parks and Recreation Farmlands Visual Effects Groundwater Wild and Scenic Rivers



Schedule & Process

Project Scoping

Environmental At least 2+ years

Document Approval **NEPA Scoping**

Permitting

We are here

Right of Way Acquisition Up to 2 years

Plans In Hand

Local 35%

Preliminary

Final PS&E

Review PS&E

construction funding availability 2019 or 2020 depending on

We are here

This schedule is dependent upon a number of variables and is subject to change.

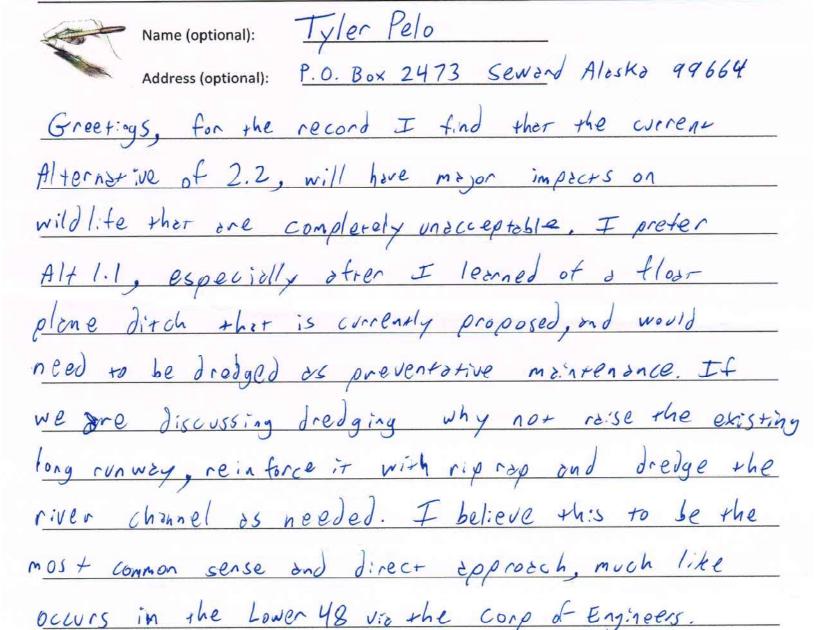
Written Comments

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Please share your thoughts and ideas below regarding information presented at this meeting, the Draft Environmental Assessment, or the project in general.

Place this sheet in the comment box or submit your thoughts later (by December 31, 2018, please) to the address below.





Please provide your comment today or send written comment (by December 31, 2018, please) to:

habitat is beying the pale if Alt 2.2 comes to fruition.

In conclusion, the damage to this Critical wetland

Robin Reich, Public Involvement Coordinator, Solstice Alaska Consulting, Inc., 2607 Fairbanks Street, Suite B, Anchorage, Alaska 99503 or via email to solsticeak@solsticeak.com.

Please share your thoughts and ideas below regarding information presented at this meeting, the Draft Environmental Assessment, or the project in general.

Place this sheet in the comment box or submit your thoughts later (by December 31, 2018, please) to the address below.





Name (optional):

Jane Belosarac

Address (optional):

PO Gox 3446, Seward 99664

In reparts to environmental impact - on paper the wellands are small and the animal species that live and migrate over the area are not of high Concern. It does not necessarily quality for government protection. That being paid it is recognized there will be wetland destruction and migration will be impacted. ask as this project moves torward, efforts Should be made to restore or create alternative habitat in the area. Our local wildlife is an ntegral part of the spirit of Scward and hel attract visitors (and their money). Do what enable the wildlife to continue

Please provide your comment today or send written comment (by December 31, 2018, please) to:

Robin Reich, Public Involvement Coordinator, Solstice Alaska Consulting, Inc., 2607 Fairbanks Street, Suite B, Anchorage, Alaska 99503 or via email to solsticeak@solsticeak.com.

Project Website: www.dot.state.ak.us/creg/sewardairport

Please share your thoughts and ideas below regarding information presented at this meeting, the Draft Environmental Assessment, or the project in general.

Place this sheet in the comment box or submit your thoughts later (by December 31, 2018, please) to the address below.





Name (optional):

JEFFBridge S, FATERIM CITY Manager

Address (optional):

P.O. BOX 167, SEWARZ AR 99664

The City of Seward will be submitting format Communts.

The nature of those comments will be the need to

extend the runway to 4,000 fret with this project.

Using FAA design standards in Alaska may

not rescult in ideal culcimes brised upon the

unique realities of Alaska. This is An

emergency response issue more than onlything

else.

80 Sn Sep, Inter Cry Mengs

Please provide your comment today or send written comment (by December 31, 2018, please) to:

Robin Reich, Public Involvement Coordinator, Solstice Alaska Consulting, Inc., 2607 Fairbanks Street, Suite B, Anchorage, Alaska 99503 or via email to solsticeak@solsticeak.com.

Please share your thoughts and ideas below regarding information presented at this meeting, the Draft Environmental Assessment, or the project in general.

Place this sheet in the comment box or submit your thoughts later (by December 31, 2018, please) to the address below.



Name (optional): Address (optional):		
4000' or	nothing.	Thank you.
		V.

Please provide your comment today or send written comment (by December 31, 2018, please) to:

Robin Reich, Public Involvement Coordinator, Solstice Alaska Consulting, Inc., 2607 Fairbanks Street, Suite B, Anchorage, Alaska 99503 or via email to solsticeak@solsticeak.com.

From: Jeff Bridges <jbridges@cityofseward.net>
Sent: Monday, December 31, 2018 9:02 AM

To: Solstice AK

Subject: Seward Airport EA

Ms. Reich

Good morning.

We are preparing our comments on the Seward Airport EA but I have a question on due date and where to send them.

The EA says to send them to you and I understand that the date has been pushed to January 9, 2018. Also, according to a DOT publication, comments and a request for a public hearing should be sent to:

Brian Elliot, Environmental Manager at DOT. These should also be delivered by January 9.

Can you clarify for me please?

Thank you
Jeff Bridges
Interim City Manager

Spam
Phish/Fraud
Not spam
Forget previous vote

From: akd68@live.com>

Date: Tue, Jan 1, 2019, 1:40 PM

Subject: Seward Airport Improvements feedback

comments2 Seward Airport Improvement Project		
name	Duke Marolf	
satisfied	add to list	
comments	There is a need for a short gravel strip to accommodate bush tires. Perhaps alongside the main runway. Talkeetna has a great option alongside the main runway that is heavily used. Landing on the hard surface with bush tires is very costly.	
zipcode	99664	
comments1		
email	akd68@live.com	

From: Jeff Bridges <jbridges@cityofseward.net>
Sent: Thursday, January 3, 2019 3:22 PM

To: Solstice AK

Subject:City of Seward Comments on Seward Airport Environmental AssessmentAttachments:City of Seward Comments on Seward Airport Improvement Environmental

Assessment.pdf

Dear Ms. Reich

Attached are the City of Seward comments on the Seward Airport Improvement Project Environmental Assessment.

Thank you for your attention to this matter. If you have any questions please let me know.

Sincerely Jeff Bridges Interim City Manager

Spam
Phish/Fraud
Not spam
Forget previous vote

CITY OF SEWARD

P.O. Box 167 410 Adams Street Seward, Alaska 99664-0167



- Main Office (907) 224-4050
- Police (907) 224-3338
- Harbor (907) 224-3138
- Fire (907) 224-3445
- City Clerk (907) 224-4046
- Community Development (907) 224-4049
- Utilities (907) 224-4050
- Fax (907) 224-4038

January 2, 2019

Ms. Robin Reich, Public Involvement Coordinator Solstice Alaska Consulting, Inc. 2607 Fairbanks Street, Suite B Anchorage, AK 99503

Re: City of Seward Alaska, Comments on Draft Environmental Assessment for improvements to the Seward Airport. (Project #Z548570000)

Dear Ms. Reich

The City of Seward is pleased to provide the following comments on the Draft Environmental Assessment for improvements to the Seward Airport. We would like to thank the Alaska Department of Transportation and the Federal Aviation Administration for their attention to this critical infrastructure element to the southern Kenai Peninsula. We appreciate the openness and thoroughness of the process. We do, however, have concerns and would like to see changes to the plan.

As we discussed, the community would prefer a 4,000-foot runway over the currently proposed 3,300-foot runway. The proposed length of the new runway is entirely consistent with rules and regulations that may work effectively in the lower 48 states. However, we would make the case that strict compliance with these regulations would turn a blind eye to the unique nature of Alaska, the distance between communities, and the real potential for using aircraft as a primary means of getting large numbers of people out of an area or supplies into a community. Limiting the length of the runway would require relief flights of larger aircraft to utilize less fuel or less cargo in order to operate at this airport. In the event of a true relief operation this would not be efficient. It only makes sense to maximize the potential of infrastructure improvements when they are under construction.

The current design calls for an eventual length of 4,000 to this runway. The land necessary for such a length is also being acquired for this anticipated length. One of the statements made was that to undertake the full 4,000-foot runway at this time would slow the project down due to the CLOMR / LOMR process. At this point we are not convinced that these studies and revisions will not be necessary with the current project length of improvements to 3,300 feet.

It would be unfortunate if due to the length limitation of the runway and its inability to utilize larger aircraft that the airport did not meet its potential for current and future aircraft and thus become drastically underutilized. These anticipated improvements would not then be used effectively and be put toward maximum benefit.

It is for these reasons that the City of Seward requests that the proposed improvements to the Seward Airport include building the entire runway to 4,000.

We would also request a public hearing on this Environmental Assessment to allow for additional comments on information contained within the assessment.

Again, we would like to thank the Alaska Department of Transportation and the Federal Aviation Administration for their commitment to this project and to the Seward community.

We look forward to the completion of this critical infrastructure project.

Sincerely

Jeff Bridges

Interim City Manager

Cc. Mayor David Squires and Seward City Council Members

U.S. Senator Lisa Murkowski

U.S. Senator Dan Sullivan

U.S. Representative Don Young

Alaska State Senator Peter Micciche

Alaska State Representative Ben Carpenter

Kenai Peninsula Borough Mayor Charles Pearce

Kenai Peninsula Borough Representative Ken Carpenter

From: Tasha DiMarzio <tjbluebird@yahoo.com Sent: Wednesday, January 9, 2019 6:17 PM

To: Solstice AK <solsticeak.com>

Subject: Seward Airport Comments

Hello Robin,

Attached are my comments on the Seward Airport Improvement Project.

Thank you for taking the time to read our feedback, I hope our local knowledge of the area is taken seriously. Not only are we locals be we work in the scientific field and have been trained to assess habitats and the wildlife that use those habitats along with how different construction projects that take place in a cold marine environments will be effected.

I have also attached some photos of Dusky Geese at the airport wetlands. (a species not mentioned at all in the report) Dusky Geese are species in decline and on the Audubon watch list. This is a species that is currently and has been studied by ADFG due to its declining status. (please contact them for official input)

Sorry, I could not make it to the December 12 meeting I was out of the country.

Please feel free to contact me regarding any questions that pertain to my comments and the project.

Thank you for your time

Tasha

Seward Airport Improvements Project
Draft Environmental Assessment No. 54857

To whom it concerns:

All comments refer to the Seward Airport Improvements Environmental Assessment document at http://www.dot.state.ak.us/creg/sewardairport/documents/Draft-Environmental-Assessment.pdf and Errata Sheet

http://dot.alaska.gov/creg/sewardairport/documents/122018-Errata-Sheet-wfigure. Pdf

Overall, this document is incomplete, outdated, and lacks proper research. It also lacks local knowledge of the current Seward airport land, wetlands and surrounding tidal area. The proposed plan is not what the local Seward based pilots want; one new runway won't be long enough for most corporate jets. It will also likely have a cross wind factor the pilots will have to deal with. The pilots need two runways when the winds are bad, allowing them to favoring one run way or the other; Which is why the Seward airport was built with two run ways to being with; safety in mind for the pilots.

Measures to avoid, minimize, and compensate for wetland losses are missing or not adequately addressed and environmental impacts are poorly presented.

Thank you for this opportunity to comment, below are my comments for the individual sections.

Page 1: "4,500 air taxi operations; 4,000 general aviation operations annually". Where did these statistics come from? These numbers seem extremely high, and not true, they and imply a much busier airport than what is used in reality. This is a low level activity airport used only by private planes, one medivac, and three helicopter tour companies. (Helicopter needs were not addressed) So, how is a 3300' runway justified?

Figure 2: Recycled asphalt should not be used as end of runway riprap or slope armoring as this will negatively impact the salt marsh ecosystem. Minimize hardened surfaces at every opportunity to allow the existing vegetation to mitigate floodwater and rainwater runoff.

Figure 2: south end of the current apron, taxiway F (T/W F): Do NOT clear all of the Spruce trees! The trees in this area serve as an important storm and windbreak for the airport and help protect parked planes and buildings from south and crosswinds. It is also habitat for wildlife and perches for Bald Eagles, owls and other migratory birds.

Note: The aerial photo is outdated. The forested area west of Airport Road has been clear-cut by the AKRR, leaving only a few trees along the road.

Avoidance, minimization, and mitigation has been ignored.

Figure 2: Fence. Extending the fence through the wetlands and slough to the south is strongly not advised. Installing and extending a fence in the wetlands will be very difficult. The tide brings in driftwood, icebergs and debris of all sizes which will damage the fence, requiring expensive maintenance. The existing fence does not serve its purpose as it has several large, openings and does not restrict people or wildlife. Maintenance has not been kept up on the current smaller scale fence, how will a larger one be maintained?

Moose, bears, and other wildlife will become blocked and become a problem because this barrier. They will continue to try and get to their food source (salmon, clams, grasses and sedges) in the wetlands. Learn from other projects that plan for wildlife movements, that have installed tunnels, bridges ect. Or just leave out the costly fence all together.

Figure 2: Float Plane Channel:

"It is anticipated to remove approximately 42,101 cubic yards of material from the wetlands and waters of the US to develop a new float plane channel and access road." The float plane channel will impact 1.65 acres of valuable tidal wetlands, including destroying an anadromous stream and fish nursery. It will severely impact and alter the hydrology of the wetlands. Cutting a channel through the existing sedge wetlands, anadromous stream, and salt marsh will destroy that ecosystem. Carving the channel through the protective beach ryegrass high salt marsh coastal barrier will destroy an important landform that serves as a defense barrier against storm surges, coastal erosion from storms and rising sea levels.

Float planes have never used the area that was made for them. I have lived in Seward 18 years and go to the airport on a weekly basis in the winter and daily in the summer and I have never seen a float plane land in or around the current airport. Floatplanes will not use a new one, not because they would not like too but, because it would not be usable the currents, tides and sediment fill in this area. It will be costly to dredge frequently and repair after winter tides and icebergs wreak havoc on this landscape. It is just not conducive for floats planes. Leave it be natural.

P 7: Purpose and Need: Protect airport from further flood damage

Environmental Impacts: Biological Resources: I strongly disagree with this unsubstantiated Statement: The proposed project could impact the habitat of at least 30 Birds of Conservation Concern. Even though birds have wings they cannot and will not just move to other nearby locations, there are none. Birds learn what habitats, and migration routes to use from their parents. It is passed down with each generation. Many species cannot just move or adapt. Especially when there is no other suitable habitat for them to move to and the time frame is so short! The specific microhabitats currently provided by the wetland complex are extremely limited in this area and in Resurrection Bay this is a very unique and significant place for wildlife. This project and its long-term consequences will wipe out essential and critical habitat; it is unrealistic and unsubstantiated expectation that the birds could find suitable habitat. There is no other salt marsh system at nearby locations.

"These birds may also be dissuaded from nesting or using the head of

Resurrection Bay as a "stopover" during migration." Dissuading/hazing exhausted migratory birds from the only and most suitable feeding and resting habitat at the head of Resurrection Bay is indefensible. Who/what staff is going to do this? This would be a full time 24 hours a day job in spring and summer. Once again, the birds have no other option of habitat to move to they will still come and the result will be killing birds. There is just no other habitat option for them to move to once hazed. The birds migrate from the south up the bay and must rest before crossing the mountain passes before continuing on to their breeding grounds, you cannot change migration routes.

P8 (Also see pages 28, 30, 33) Table Land Use:

Please do not target just Bird watchers in this report as the only group accused of crossing the active air operations area. Since the trees were cut down a few years ago this area became more visible to locals wanting a nice place to recreate and walk their dogs. Removing the trees created easier access to the ponds, fields and beach at the airport. Less than 5 years ago only ~10 people used that area and most accessed it via the beach at low tide or through the woods not crossing the run way. There are far more recreational users enjoying this area now than ever before due to the tree removal; Including beach combers, duck hunters, photographers, dog walkers and fat bikers.

This area is enjoyed by far more recreational users then pilots.

P13-18 Migratory birds. Why have all the 1000's of migratory waterfowl (ducks, geese and swans, cranes) been excluded and also the passerines such as many sparrow species. These birds not only migrate through the area but also nest in the uplands and the pond area. Dusky Canada Geese (population declining) use this area as staging grounds. Northern Pintail, Gadwall, Mallards, Green-wing teal, Great Blue Herons and Bufflehead all nest in the wetlands, Along with many songbirds and shorebirds.

Removing 3.5 acres of high quality habitat is not a minor loss it's a huge loss, there is a reason it is classified as high quality. There is no other high quality habitat in the other 25 acres. Besides the fact that the habitat type is different, the area constantly disturbed my fishermen, atv's and other recreational user groups. It is not comparable. On top of that if someone is hazing the birds away from the runaway and airport area, how are the birds and other wild life able to use those other areas? Ebird.org is sighted as a source which is great; but take notice of the location of the sightings and report locations; they are all from the surrounding airport area, tidelands, mudflats and grasslands. This is the habitat the wildlife use at the head of the bay. If there were other locations "suitable habitats" the wildlife would already be using those areas and you would see that in the reports. But you will not find those reports because there is no other suitable habitats the wildlife are all funneled into the airport wetlands.

P 19 Comments from ADFG and USFSW were limited to the construction, not to the impact of the relocated and extended runway, float plane channel, wetland and upland fill, clear-cut trees, flooding by the Resurrection River into the currently protected floodplain, and wildlife

impacts once the project is completed. Please get feedback from these two agencies before continuing on with planning.

Denying that fact that two species of Salmon, Stickle-backs, flounder, sculpin depend on this small ecosystem for their reproduction and survival will not be affected is very poorly researched.

Why was climate change not addressed? Changing weather patterns and rising sea levels will have a major effect on this run way.

Doing a 3 hour assessment in September is not adequate! Come back in the winter when the fields are flooded, icebergs are stranded on the current run way, the wind is howling. Come back in the spring see the salmon, bears and birds that all call this fragile ecosystem home.

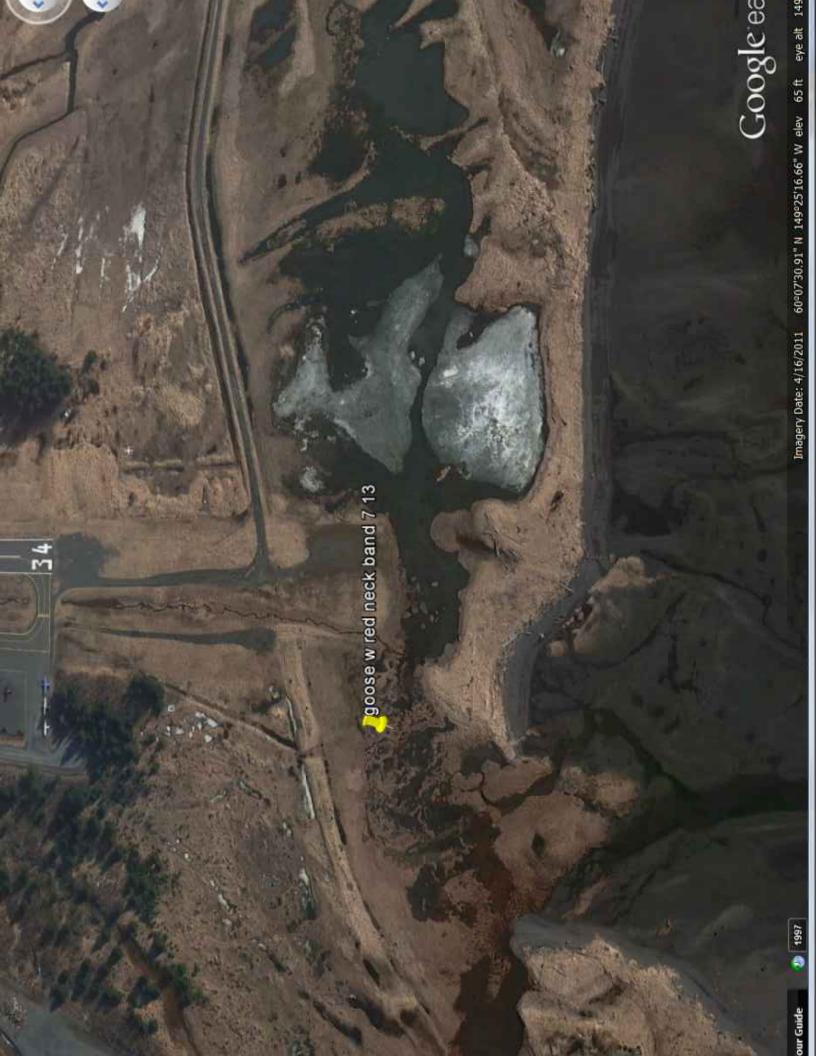
I do not feel that every effort has been made to protect this valuable wetlands ecosystem of tideland, bay, barrier, wetlands, pond, marsh, and estuary that serves as a protective interface between the ocean and the land. One long runway is not what the local pilots want.

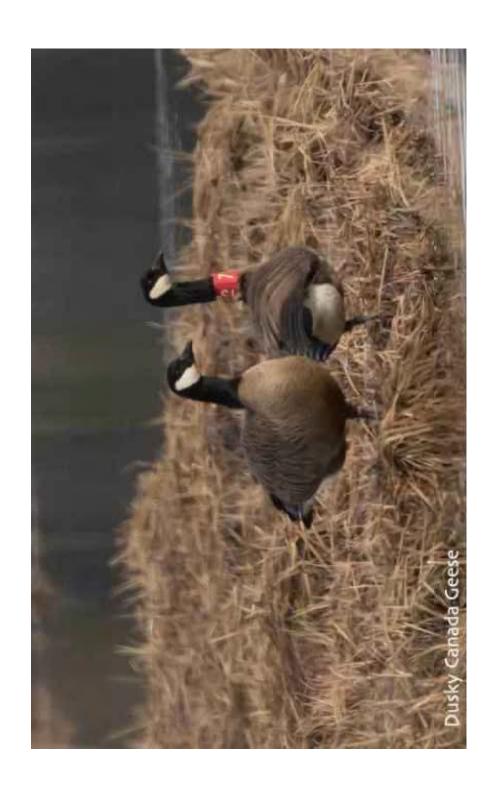
This project has many errors from the research of the ecosystem as a whole to how the runway and fencing will be affected when Mother Nature takes its toll on it during the high tides, storms and rising sea levels of the winter hit.

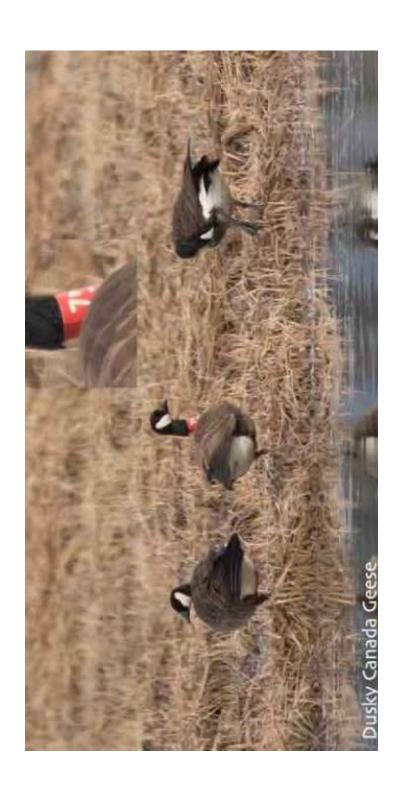
This project will cost more money in construction and upkeep then working with the current runways. Don't waste the locals, money, or irreplaceable habitat. Do more research please.

Thank you for your time

Tasha DiMarzio







From: rainyday < c griz@yahoo.com>

Sent: Wednesday, January 9, 2019 3:37 PM

To: brian.elliott@alaska.gov; Goentzel Renee M (DOT) renee.goentzel@alaska.gov; Solstice AK

<solsticeak@solsticeak.com>; Olivia Cohn <olivia@solsticeak.com>

Cc: dfg.dsf.permitcoordinator@alaska.gov; Beaton Barbara J (DOT) barbara.beaton@alaska.gov;

Subject: Seward Airport Improvements Project Environmental Assessment document

Hello All,

I apologize for inadvertently not including the document PDF with the photos which were sent this morning.

Please let me know that you received both this document and photos.

Best, Carol Griswold Seward

From: rainyday < c griz@yahoo.com>

To: "brian.elliott@alaska.gov" <bri>brian.elliott@alaska.gov>; Goentzel Renee M (DOT)

<renee.goentzel@alaska.gov>; Solstice AK <solsticeak@solsticeak.com>

Cc: "dfg.dsf.permitcoordinator@alaska.gov" <dfg.dsf.permitcoordinator@alaska.gov>

Sent: Wednesday, January 9, 2019 12:22 PM

Subject: Seward Airport Improvements Project Environmental Assessment comments

Hello All,

Attached please find my comments and photos on the Seward Airport Improvements Project Environmental Assessment.

Thank you, Carol Griswold January 8, 2019

Seward Airport Improvements Project Draft Environmental Assessment No. 54857

Brian Elliott, Environmental Manager DOT &PF, Preliminary Design & Environmental brian.elliott@alaska.gov

Renee Goentzl, Environmental Analyst II Renee.goentzel@alaska.gov 907-269-0714

Robin Reich Public Involvement Coordinator Solstice Alaska Consulting, Inc solsticeak@solsticeak.com

Hello All,

All comments refer to the Seward Airport Improvements Environmental Assessment document at http://www.dot.state.ak.us/creg/sewardairport/documents/Draft-Environmental-Assessment.pdf

and Errata Sheet http://dot.alaska.gov/creg/sewardairport/documents/122018-Errata-Sheet-w-figure.pdf

Overall, this draft environmental assessment is perfunctory, with missing, incomplete, outdated, and erroneous data. Assumptions are made without substantiation. The critical Wetlands Assessment, Appendix C did not assess jurisdictional tidal wetlands affected by the current airport plan and omitted essential data. Measures to avoid, minimize, and compensate for jurisdictional wetland losses are missing or not adequately addressed. Environmental impacts are particularly poorly presented. Fish data from affected area was not included. I find these issues troubling and urge the regulators and agencies to follow up and require corrections before this environmental assessment and project are approved and proceed.

While I appreciate the extension to January 9, due to the federal government shutdown, I was unable to confer with ecologists and botanists from agencies including the National Park Service and Islands and Oceans.

Thank you for this opportunity to comment, below. Photos attached.

Sincerely, Carol Griswold PO Box 1342 Seward, AK 99664 c griz@yahoo.com Comments on Errata Sheet: See expanded comments below.

Reinforce abandoned RW 13-31 as a protective levee.

Delete security fence extension to south into tidally influenced wetlands.

Delete float plane channel and access road.

Remove material off-site, not on native vegetation or wetlands within airport boundaries.

Selectively clear and grub a much-reduced footprint.

Comments on Seward Airport Improvements Project Draft Environmental Assessment by page: Page 1: Interesting statistics. How are 4,500 air taxi operations, and 4,000 itinerant general aviation operations annually documented? Specifically, I question 4,500 air taxi operations, and 4,000 itinerant general aviation operations annually. the 2000 general aviation (local) numbers include touch-and-goes? The numbers seem highly inflated, and if so, imply a busier airport than reality.

Note: p 30 "Forecast operations for the airport total 12,856 operations **over 15 years."** "Projected operations for Seward Airport do not approach the above-stated operational thresholds....The low level of activity at the airport..."

According to previous plans, operations at this airport have not increased, and growth may even be negative. This is a very low-use airport primarily serving small private planes, three seasonal helicopter tour companies, and a single medevac operator. Is a 3300' runway justified?

Helicopters as airport users are not mentioned in this report. Helicopters activity has increased to two companies offering dogsled glacier tours, Bear Glacier tours, and flightseeing tours in the summer, and one heli-skiing company in the winter. Helicopters contract out services to miners, salvage operations, etc. The Coast Guard helo also uses the airport. The airport project should address their impact and needs.

Page 1: This Alternative extends the existing 2,289 foot runway length by 1,011 feet to 3,300 feet to accommodate current and near-term aircraft in use, including medevac operations. Does this plan have a backup if the private landowner, Leirer Family Limited Partnership, refuses to sell? I understand the land acquisition is needed for airspace protection to the south and for a possible controversial runway extension to 4000'.

Figure 2: I appreciate the removal and reuse of asphalt from abandoned runways, aprons, and taxiways. I encourage DOT to minimize hardened surfaces at every opportunity to allow the existing vegetation to mitigate floodwater and rainwater. This includes the area at the north end of the airport, ie the triangular purple area on the figure. At the December 12, 2018 Seward Open House, I was informed this area is intended to be raised, paved, and bermed to serve as a floodwater deflector to protect the runway from upstream flooding. However, a storm water vegetation berm on that north edge, leaving the rest vegetated, would help deflect potential flood water, help absorb surface water year-round, and help protect airport infrastructure and the road. Update: according to the errata Sheet, this staging area was removed, however, it is still noted as a Material Disposal area.

Recycled asphalt should not be used as end of runway riprap or slope armoring as this will negatively impact the salt marsh ecosystem. **Only clean rock should be used.**

To comply with the Mitigation Rule, do NOT permit any materials to be dumped here or anywhere else at the airport property on the native vegetation. Haul the materials to the landfill. Use only clean rock for end of runway riprap and armoring.

http://dot.alaska.gov/creg/sewardairport/documents/122018-Errata-Sheet-w-figure.pdf

Figure 2: Wind Cone location: this is a very popular spot for helicopters. If a weather station is co-located, will their rotor wash affect the weather station readings? Is there a more appropriate location for the wind cone, perhaps on the east side of the runway?

Figure 2: south end of the current apron, taxiway F (T/W F):

The trees serve as an important storm and windbreak for the airport and help protect parked planes from south winds and crosswinds, not to mention habitat for wildlife and perches for Bald Eagles. They are in a wetland as well; the water table is very high here.

To help reduce flood impacts, AVOID removing these trees and associated salmonberries, elderberries, alders and willows.

Update: according to the errata Sheet, this staging area was removed. The new runway will be located even farther from these trees. There is no reason to clear this area. Note them as "obstacle notes" in the airport description.

Note: The aerial photo is outdated. The forested area west of Airport Road has been clear-cut by the AKRR, leaving only a fringe of trees along the road. The island of trees south of taxiway A shown in the figure was clear-cut by DOT. Chunk by chunk, this rich ecosystem is unnecessarily being destroyed.

Figure 2: Fence. Extending the security fence through the wetlands and slough to the south is illadvised, and affects jurisdictional wetlands. Installation in the wetlands will be difficult. The tide delivers debris of all sizes which will quickly damage the fence extension, requiring expensive maintenance. The existing fence has several large, ungated openings and does not restrict people or wildlife. It would be more cost-effective to enforce the no trespassing regulations. Or add gates and security locks to the existing fence. Moose, bears, and other wildlife, however, will then be a problem because this barrier is in their home. The proposed extension will only exacerbate their distress, requiring them to go even farther to get around it.

Figure 2: Float Plane Channel: information on the width of this proposed channel is buried in the report on page 38 and 47. It is anticipated to remove approximately 42,101 cubic yards of material from the wetlands and waters of the US to develop a new float plane channel and access road, and install riprap along the new runway. The float plane channel would be 8 feet deep and 100 feet wide, and impact 1.65 acres of valuable tidal wetlands, including ditching an anadromous stream and fish nursery. The length was not stated, but appears to be over 750' long.

P 39 "The proposed Action's RW construction and float plane channel would not alter hydrology to wetlands on site." This is unsupported and untrue. Cutting the 100-foot wide, >750' long channel through the existing jurisdictional Lyngbye sedge wetlands, anadromous stream, and salt marsh will destroy that ecosystem. Carving the channel through the protective beach ryegrass high salt marsh coastal berm will destroy an important landform that serves as a first line of defense against the impacts of coastal erosion from storms. Extending the runway and associated fill into the salt marsh will restrict tidal flow which daily flows in and out of the salt marsh, causing increased velocity and erosion. The float plane channel will allow the ocean to flood at every tide without the mitigating benefit of the sedge wetlands. Float planes could also deliver invasive species on their floats. Dredging and maintenance will be required to keep it clear of debris and sedimentation. The channel will deliver the ocean directly to the fence and runway, like a pipeline, especially during the normal high tides, Spring tides, and storms. No vegetation studies were done at this site. Where is the hydrology study?

The channel will benefit a very small minority of float plane owners, (page 5) who have an alternative option of changing their floats and wheels at Bear Lake before freeze-up and after break-up.

The proposed Float Plane Channel Access Road will also be inundated by the Spring tides at the south end and will require maintenance. As noted on page 6, "State budget cuts continue to decrease available maintenance funding." The Float Plane Channel is impractical, unaffordable, and unfeasible.

Note, page 5: use of the unnamed anadromous stream between the two runways and "service road" by float plane owners is no longer possible due to gravel deposits in the stream caused by channel changes and repeated flooding. Float plane owners have had to use alternate methods, such as Bear Lake, for the past several years.

Also buried on page 47, 5.9.3.4 Consultation, Permits, and Other Approvals "A tidelands survey has been completed, and a DNR land use permit will not be needed for work associated with the float plane channel. A USACE permit will be needed; further design will determine whether the float plane channel will require a Section 10 or a Section 404 permit." Where is the tidelands survey documentation? Why is a DNR land use permit not needed for the extremely destructive float plane channel? Will the USACE permit consider the tremendous impact of the float plane channel and extension of RW 16-34 into the salt marsh ecosystem?

Every effort should be made to protect this valuable wetlands ecosystem of tideland, bay barrier, wetlands, pond, marsh, and estuary that serves as a protective interface between the ocean and the land. Delete this Float Plane Channel. Apply measures to avoid, minimize, and mitigate impacts.

Figure 2: Consider placing Secondary Lighted Wind Cone to the east of the new runway where it would be more accurate. It will need to be elevated above the tide line.

Figure 2 minor note: text boxes on all these figures would be easier to read if white backgrounds were rectangles instead of irregular white shapes.

Page 4 Figure 8, page 44 Note: Zones, including AE not defined in List of Acronyms and Abbreviations on p iv, and should be explained.

Page 4, 5, 7, 45, and numerous other references. This study anticipates the Resurrection River to overtop and breach RW 13-31, allowing floodwater to reach the embankment of the new runway 16-34. "Allowing RW 13-31 to eventually breach, will restore part of the original floodplain." While this statement may be true, now that there is valuable infrastructure to protect, is no longer desirable. The river will not recognize which part of the original floodplain is approved for "restoration" by this plan and which would lead to millions of dollars in damage. The original Resurrection River L alluvial delta and floodplain included the head of the bay all the way west to the current Lagoon at Van Buren Street and Second Avenue. The area is now filled with critical infrastructure. The new runway, wetlands, tidelands, and adjacent AKRR infrastructure will be catastrophically impacted when RW 13-31, which serves as a levee, is abandoned, breached, and the river starting "restoring" the floodplain. P 45, I disagree with the conclusion. The Proposed Action WILL cause flow alterations that WILL result in unacceptable downstream flooding. And destruction of habitat and infrastructure.

The potentially catastrophic consequences of this action to the ecosystem and adjacent infrastructure are not discussed despite repeated similar statements throughout the report and should be.

To comply with the Mitigation Rule, MAINTAIN RW 13-31 by continuing to armor and reinforce it as a levee.

P 5: Purchase of the 39-acre Civil Air Patrol Land "will ensure that trees are not cut down thereby adding to the prevention of streambank erosion near the airport." While I appreciate the thought of protection of these trees which include bald eagle, great horned owl, and other nests, this is a misleading statement. The Errata Sheet Figure 2 shows that trees including the fringe of cottonwoods along Airport Road and the alders and other trees and shrubs WILL be cleared and grubbed cut on the west side. Most of the rest of the CAP land is marked for clearing and selective clearing. It is not apparent what each of these actions entail, but it is NOT protection.

Minimize this action by leaving a 50' wide buffer of native vegetation around the small wetland pond, minimize the number of trees cut, and consider topping instead of stumping.

P 7: Purpose and Need: Protect airport from further flood damage Environmental Impacts: Biological Resources: I **strongly** disagree with this unsubstantiated statement: "The proposed project could impact habitat of 30 Birds of Conservation Concern; however, **habitat is not limited at the head of Resurrection Bay and it is expected that birds could move to other nearby locations."** The specific microhabitats currently provided by the wetland complex are extremely limited in this area and in Resurrection Bay. This project and its long-term consequences will wipe out essential and critical habitat; it is unrealistic and unsubstantiated expectation that the birds could find suitable habitat. Provide supporting documentation of other Pacific salt marsh, Lyngbe sedge low marsh zone, beach ryegrass high

marsh berm, pond, estuary, and wetland systems in nearby locations. Tip: there is no other salt marsh system or equivalent at nearby locations.

Avoid, minimize, and mitigate impacts to wetlands by maintaining RW 13-31 as a levee.

Note: buried on page 50, "These birds may also be dissuaded from nesting or using the head of Resurrection Bay as a "stopover" during migration." Dissuading/hazing exhausted migratory birds from the only and most suitable feeding and resting habitat at the head of Resurrection Bay is unconscionable. Hazing birds to prevent their use of the head of Resurrection Bay is indefensible.

Avoid, minimize, and mitigate impacts to the wetlands and biological resources by moving RW 16-34 back from the salt marsh or shorten it. Remove impractical and expensive to maintain Float Plane Channel.

Note: on page 13, "The WAP identifies 88 bird species as Species of Conservation Need and 86 species as Species of Greatest Conservation Need". This list should be considered along with the above 30 species of conservation concern.

P 8 Table Climate:

It is a travesty that the effects of climate change shall not be considered for this project. There will be increased frequency and severity of flood events and sea level rise at the airport. The project will have to accommodate these irreversible impacts by another name. Is raising the new RW 16-34 above the current 100-year flood level with only 2' of freeboard high enough?

P 8 (Also see pages 28, 30, 33) Table Land Use:

Bird watchers are consistently targeted in this report as the only group accused of crossing the active air operations area. There are far more numbers of recreational users including duck hunters, photographers, dog walkers and fat bikers, many of whom are inconsiderate of both the aircraft operations and the habitat. I believe irresponsible, ignorant owners of uncontrolled dogs and illegal egg collectors (May 2016) severely impacted migratory and resident birds especially the Arctic Tern colony.

P 8 Table Natural Resources and Energy Supply:

Will the electric system be extended to lease-holders along Airport Road who currently do not have access to the electric grid? Note: p 30 states that electricity is available to all lease lots at the airport. This is not true for all, hence the use of solar panels and wind generator.

P 8 Table Noise and Noise-compatible Land Use:

"Noise levels may increase at the bird-watching area at the southern edge of the airport property..." What an inappropriate, human-centric description of the rich wetlands habitat south of the proposed runway. It is not primarily a "bird-watching area" but a critical and essential spawning ground and nursery for coastal fish and shellfish; nesting, feeding, and resting site for waterfowl and resident and migratory birds. Extending the runway farther into the wetlands and salt marsh pond will bring the noise and presence of the planes directly into this important habitat and negatively affect the ecosystem. The adjacent barge repair operation on AKRR

property already negatively affects this ecosystem with noise, activity, and the workers' roaming, loose dogs.

Avoid, minimize, and mitigate impacts to the wetlands and biological resources by moving RW north away from the salt marsh or shorten it. Remove impractical and expensive to maintain Float Plane Channel.

P 9 Table Socioeconomics: This Proposed Action severely affects the quality of life for many residents.

P 9 Table WETLANDS:

"25 acres of unavoidable impacts to the wetlands" is a substantial negative effect to this ecosystem. Punching a Float Plane Channel through the coastal berm and surrounding jurisdictional Lyngbye sedge wetlands, extending the runway into the wetland pond, and allowing Resurrection River to "restore" part of the original floodplain will substantially reduce the natural system's ability to retain floodwater and storm water runoff.

After reducing this impact to the barest minimal impact by moving new RW 16-34 back or shortening it, deleting the float plane channel and access road, retaining the trees south of the Airport Road cul-de-sac, hauling off all disposal materials off-site, retaining the vegetation north of the airport apron, retaining trees and shrubs on the CAP property, etc, at least 25 acres of comparable wetlands should be placed into a conservation easement.

Note: every habitat type in Appendix C, page13-21, from forest to tidelands, was listed as saturated or inundated. The water table is very high here, and even the spruce trees are in wetland habitat. The entire airport property is wetlands.

E 15 "No Salt Marsh areas were sampled for dominant vegetation in the 2004 survey but Shannon & Wilson (1996) lists Lyngby's sedge (*Carex lyngbyei*), several flowered sedge (*C. plurifora*) and sea arrow-grass (*Triglochin maritimum*) as dominants in those wetland types."

"Lyngbye's sedge (Carex lyngbyei) is a well known and described type for Alaska. It is listed in every Alaska classification that includes coastal ecosystems. Lyngbye's sedge ... is a good indicator of jurisdictional wetland conditions."

http://www.cookinletwetlands.info/communityDescriptions/Caly3.htm

The Seward Airport Improvement Plan only mentions this federally recognized wetlands indicator in the appendix.

The coastal ecosystem including the salt marsh and impacted Lyngbye's sedge wetlands was not included for sampling in any successive studies, yet it will be the most impacted wetlands.

Document the salt marsh, sedge wetlands, and surrounding coastal wetlands, apply the necessary federal avoid, minimize, mitigate controls in the report and update.

P 9 Floodplains: Allowing Resurrection River to breach RW 13-31 and flood the existing wetlands **will cause** serious impacts.

P 9 Table Surface Waters: "The natural and beneficial water resource values of the adjacent water bodies may be impacted." Please elaborate, discuss the impacts, and strategies to avoid, minimize, and mitigate these potential impacts.

P 10 "The City of Seward is particularly susceptible to earthquakes, tsunamis, and stream flooding." Use of the airport during such disasters is a major reason to have an airport. The report does not address how the airport improvements will be engineered to survive these natural disasters. **Please elaborate and address.**

P 11 Biological Resources (Including Fish, Wildlife, and Plants)

5.2.1 Affected Environment: More detail on the ecology of the Pacific tidal marsh, estuary, and wetlands is needed here to fully understand the negative impacts of this project on a fragile habitat, and best options to avoid, minimize, and mitigate.

The runway extends into a Pacific tidal marsh, one of Alaska's most critical habitats, according to a report by UAA. "This dynamic environment supports life highly-adapted to saturation and saline conditions. Along the Gulf of Alaska coastline, tidal marshes are uncommon, developing as marshes in protected topographic pockets, or larger complexes on the major river deltas. In this region they are one of Alaska's most critical habitats."

"Tidal marshes provide a staging area for millions of migrating shorebirds and waterfowl, is an important rearing habitat for salmon, and supports numerous taxa of concern."

"Tidal marshes are also one of Southeast Alaska's most impacted biophysical settings due to the location of villages, towns and cities adjacent to and sometimes on these flat, yet fragile habitats... (e.g. Seward, Juneau, Cordova).

Pages 6-8 of the report details the bird species of conservation concern within the Pacific Tidal Marsh Biophysical Setting.

I included more information from this report at the end of my comments.

http://accs.uaa.alaska.edu/files/vegetation-ecology/rare-ecosystem-descriptions/PacificTidalMarsh_BpS.pdf http://accs.uaa.alaska.edu/files/vegetation-ecology/rare-ecosystem-descriptions/PacificTidalMarsh_BpS.pdf

P 11 5.2.1 Affected Environment

"No marine mammals or fish occur in the project area, which about 0.25 miles from Resurrection Bay." Please clarify this statement. As noted, chum and pink salmon spawn in project area; sticklebacks are anadromous, and breed and rear there; habitat for flounders, dolly varden, sculpin. Records from ADFG from a long-term Three-spine Stickleback study should be included and considered. See comments under 5.2.2.1

Project area runway pavement is less than 500 feet from Resurrection Bay. Project Runway Safety Area and Fill Limits are about 10 feet from the bay, according to Errata Sheet figure. **Correct the data and conclusions, and resubmit.**

P 11 5.2.1.1 Essential Fish Habitat

Aside from noting anadromous streams on the figure, no fish survey data of the impacted area was included in this document. **This is a serious omission and must be rectified.**

I have documented fish data through personal observations, 11 years of COASST surveys of Airport Beach, and stickleback studies conducted under ADFG permit with attached photos. AWC Code 231-30-10075, located between RW 16-34 and 13-31 contains spawning and rearing habitat for Pinks and Chum salmon.

An uncatalogued stream that aligns with the proposed Float Plane Channel contains spawning Pinks, and the Lygnbye sedge wetlands is rearing and home habitat for many other species including threespine sticklebacks, flounder, sculpins, and Dolly Varden, and salmonids.

ADFG fish biologist Will Frost has updated the Anadromous Waters Catalog and this information will be added to the AWC in June, 2019. "The updates to the Anadromous Waters Catalog that I submitted last winter will be added to the AWC this coming June. I added an unnamed tributary (adjacent to RW 16/34) and extend the upper reach of Stream No. 231-30-10075 and updated hydrography arcs for Airport Creek. These additions were not included in the Draft EA because the nominations were added after the scoping was completed." Personal correspondence 12/31/18

P 12 Biological Resources Map is inaccurate. The Coastal Barrens does not extend into the Salt Marsh, which should be larger, nor is the Pond, noted along the long runway, that large.

P 13 Table 2 Has numerous errors. Add Bristle-thighed Curlew, migrating, Coastal Barrens. **Correct the data and resubmit.**

P 15 Table 3: MANY errors in this Table, too many to expect a public member to correct. For example: Add Spotted Sandpiper to Pond, River, Stream. Add Greater Yellowlegs wherever Lesser Yellowlegs is listed. Delete Kittlitz's Murrelet from River, Stream. Delete Marbled Murrelet from Riverine Tall Scrub. ETC.

Correct the data and resubmit.

P 16 5.2.1.4 Invasive Species: This section is also inaccurate, incomplete, and very poorly done. It does not address the impacted area of the project. Of the eight species mentioned, four are not invasive, one is not found here, and one is questionable. That leaves only two correctly identified as invasive species, with at least seven not mentioned. This project has been in the planning stages since 2004. Erroneous work submitted in 2004 should not be blindly copied and repeated. Invasive species are important; there was plenty of time to be more complete and accurate instead of perfunctory.

Survey the impacted area, correct the data and resubmit.

It is disappointing and troubling that of the eight invasive species listed, the following four grass species were listed as invasive when they are native to Alaska:

Canada Bluejoint, Calamagrostis canadensis, is a native grass, NOT an invasive.

https://plants.usda.gov/core/profile?symbol=caca4

Polar Grass, Arctagrostis latifolia, is a native grass, NOT an invasive.

https://plants.usda.gov/core/profile?symbol=arla2

Tufted Hair Grass, Deschampsia caespitosa, is a native grass, NOT an invasive.

Glaucous bluegrass, Poa glauca, is a native grass, NOT an invasive.

https://plants.usda.gov/core/profile?symbol=POGL

This error can be traced back to the 2005 study on E-14 "Common emergent vegetation consists of invasive graminoid species such as bluejoint (*Calamagrostis canadensis*), polar grass (*Arctagrostis latifolia*), tufted hair grass (*Deschampsia caespitosa*) and glaucous bluegrass (*Poa glauca*)."

One of the many joys is the intact ecosystem of native species around the airport. Invasives are found mostly in disturbed areas along Airport Road, by the airport buildings, and along the south apron extending down the "service road" until the habitat changes to periodic tidal inundation. Small populations of Prostrate Knotweed, *Polygonum aviculare*, are found at the beach, but I remove them when found so they have been under control.

Several other invasive species found in small populations in disturbed areas that were not named include the Common Dandelion, *Taraxacum officinale*, Pineappleweed, *Matricaria discoidea*, Shepherd's Purse, *Capsella bursa-pastoris*, Oxeye Daisy, *CLeucanthemum vulgare*, Common Plantain, *Plantago major*, and Common Sheep Sorel, *Rumex acetosella*.

Bigleaf Lupine, *Lupinus polyphylllus*, *Lindl.ssp. polyphyllus*, is native to Canada, and not confirmed as an introduced species in Alaska. The population seems stable and has not spread to other areas at the airport. This species does not appear to be an invasive species or a species of concern. The flowers provide important nectar and pollen for bumblebees, which include declining species.

https://plants.usda.gov/core/profile?symbol=LUPOP4

I am not familiar with White Deadnettle, Lamium album L, nor is it known in our area, or listed in the Alaska Plant Materials Center Field Guide to Terrestrial Weed Identification publication: http://plants.alaska.gov/pdf/TerrestrialWeedIdentificationGuide.pdf/

The airport may have Splitlip Hempnettle, *Galeopsis bifida* and Brittlestem Hempnettle, *Galeopsis tetrahit*, with white and purple flowers. I weed these out whenever I find them. **Correct these numerous errors and resubmit.**

P 16 5.2.2 Environmental Consequences of Alternatives

The serious adverse impacts to species of concern, sensitive species, migratory birds, bald and golden eagles and their habitats; adverse impacts on reproductive success rates; and substantial loss, reduction, degradation, disturbance, and fragmentation of native species' habitats and

populations must be addressed and minimized. I find these concerns dismissed instead of addressed in this report.

Address the environmental consequences, discuss and apply measures to avoid, minimize, and mitigate the negative effects and resubmit.

P 16 5.2.2.1 Essential Fish Habitat

Absence of evidence is not evidence of absence. The proposed Float Plane Channel slices right through the Lyngbye sedge low marsh zone, and important rearing, breeding, and spawning habitat for Dolly Varden, three-spine sticklebacks, sculpins, flounders, and pink salmon. The proposed Runway 16-34 extends right into the productive salt marsh. The lack of documentation by agencies does NOT mean "thus none would be impacted."

Note Appendix C page 12 Preliminary Wetlands Assessment for Proposed Seward Airport Improvements acknowledges the importance of these wetlands: "Because Coastal Barrens encompasses some marine aquatic wetland types it is rated as moderate for anadromous fish habitat. Coastal Barrens and Salt Marsh receive a high wildlife habitat value because of use by shorebirds, waterfowl, and bald eagles."

P 16 5.2.2.3 Migratory Birds and Eagles

Lowland sedge habitat is a very important food source for migratory birds, and provides nesting habitat for migratory residents. Sedges are an important food for voles which provide food for Short-eared Owls, Great Horned Owls, Northern Harriers, Sandhill Cranes, bears, and coyotes. This large sedge habitat should not be dismissed with a low rank.

P 17 Continued errors regarding bird species information, too many for a member of the public to correct. Black Oystercatcher, Kittlitz's Murrelet, Aleutian Tern, Caspian Tern, Red-faced Cormorant, Pelagic Cormorant, Peregrine Falcon do not breed here. Marbled Godwits do not nest here. ETC. Very poorly researched.

Correct data and resubmit.

P 17 "However, because the Proposed Action would result in filling only 0.015% of the approximately 17,900 acres of Coastal Barrens that exit at the head of Resurrection Bay, **impacts to birds using this habitat would be minimal. Birds would be expected to move to the ample adjacent Coastal Barrens at the head of the bay."** NOT. This is an outrageous and unsupported expectation that has been applied in this report to all habitats. There is no suitable equivalent for the loss of these 2.6 acres of tidelands, 0.7 acres of Pacific salt marsh habitat, 21.5 acres of lowland sedge-shrub habitat, 0.08 acres of pond habitat, 0.023 acres of Lowland Tall Scrub, 1.013 acres of Riverine Broadleaf Forest.

The impacts are NOT minimal. The birds cannot fly to other suitable habitat at the head of the bay because **there is no equivalent high-quality habitat.** Ask the birders where the birds are: especially at the airport tidelands, Lyngbye sedges, Pacific salt marsh, and in streams, sedge meadows, alder and willow thickets, spruce forest, pond and grassland. The majority of these incredible birds are specialists needing particular feeding, breedgin, nesting, and resting habitats. They are not like pigeons or starlings that can adapt to a wide variety of situations and thrive. This is it, and this project is destroying their home.

Don't these conclusions make any difference? Smaller, less, less, less?

"...smaller area available for resting before continued travel; less territory for courtship, pair bonding, and mating; less nesting habitat; less area available during colder weather."

The actual filling is only part of the impact. Parilding the many part PLTO these fracile hebitates.

The actual filling is only part of the impact. Building the runway INTO these fragile habitats brings the aircraft closer and lower, creates more noise and disturbance, and disrupts feeding, nesting, resting, and rearing in the entire surrounding area. This impact cannot be so summarily dismissed.

This section detailing specific birds is embarrassingly inaccurate, incomplete, and poorly researched. I did not bother to rewrite it but here are a few corrections: Marbled Godwits do not nest here, but use the Coastal Barrens extensively during migration. Rare Bristle-thighed Curlews have also been documented using the Coastal Barrens during migration, most recently there were four in May 2018. Aleutian Terns do not nest here. Arctic Terns do. Black Oystercatchers, Red-faced and Pelagic Cormorants, Peregrine Falcons do not nest here. Correct this data and resubmit.

P 18 I completely disagree with sweeping and erroneous conclusion in paragraph above chart, Biological Resources statement, and Table 4, etc. Expectations that birds will move to other nearby locations are false as there is no Pacific tidal marsh anywhere else, or equivalent sedge meadows, etc. Correct this erroneous expectation, provide options to avoid, minimize, and mitigate, and reevaluate.

P 18 and 19 This statement is not true: Arctic Tern colony will be not impacted because construction will follow USFWS timing guidelines and avoid work directly in this area. The terns arrive in late April and leave in mid-July or early August, depending on weather and other conditions. Will the project stop work during this critical time? No. As noted on page 19 the suggested USFWS window is May 1 to July 15 regardless of reality. As mentioned previously, extending the runway into the salt marsh and placing the riprap and fill on top of the terns' nesting and feeding habitat will definitely continue to disturb them after the airport project is completed. They will notice and react negatively to the new runway in their kitchen, bedroom, and nursery. Correct this unrealistic statement, provide options to avoid, minimize, and mitigate, and reevaluate. Move the runway 16-34 back, reduce footprint of riprap and shore armoring by making as steep as possible, use clean rock.

P 19 It appears that mitigation comments from ADFG and USFSW were limited to the construction, not to the impact of the relocated and extended runway and associated fill, float plane channel, wetland and upland fill, clear-cut trees, flooding by the Resurrection River into the currently protected floodplain, etc AFTER the project is completed.

Correct this serious omission and reevaluate.

According to the 2008 USACE/EPA Compensatory Mitigation for Losses of Aquatic Resources, Final Rule: "All practicable steps to avoid and/or minimize impacts to aquatic resources must be taken before proposing compensatory mitigation to offset project impacts." These resources include wetlands, streams, and other aquatic sites. The Mitigation Sequence is Avoid, Minimize, then apply Compensatory Mitigation.

The Plan does not describe how it will avoid or minimize impacts to aquatic resources. Instead the Plan proposes to dig an 8' deep, 100' wide, over 750' long float plane channel through the sedge wetlands and destroy an anadromous stream. This channel is unnecessary and should be eliminated.

Move the Secondary Lighting Cone farther east, delete impractical security fence extension, leave the trees and shrubs.

The small pond to the northeast on Civil Air Patrol property should have at minimum, a 50' natural vegetation buffer around it. Instead of clearcutting the trees, they should be carefully evaluated and cut selectively. Wherever possible, the cottonwoods should be shortened, not stumped, and as much of the natural shrubs including alders and willows retained. As in many Alaska airport descriptions, potentially hazardous obstacles should be noted, not cut.

The Plan should include options for Compensatory Mitigation including conservation easements on similar wetland habitat, restoration, enhancement, creation, and/or preservation of aquatic resources to compensate for any unavoidable impacts.

P 20: Hazardous Materials, Solid Waste, and Pollution Prevention During the project and afterwards: Anywhere there are aircraft and fuel storage, there is the possibility of pollution. Hazmat materials should be located on site in case of a spill, and personnel should be trained to respond quickly. 55-gallon fuel drums should be monitored, and underground fuel tanks should not be allowed due to the high water table.

P 34 "Proposed Action consists of a 3,300 foot Runway, but will also include the necessary property acquisition and planning for a potential future RW extension to 4,000 feet." Where in the Plan is the additional planning and required compliance with the Mitigation Rule? Extending the RW another 700 feet across the salt marsh and barrier high salt marsh berm involves massive jurisdictional wetland and biological resources destruction. Where are the market studies to substantiate the need for small jet operations by the tourism and industrial sectors? Where are the studies to substantiate the City of Seward claims of potential limitations on economic growth?

Delete new RW 16-34 extension to 4000' or substantiate claims; provide avoidance, mimimization, and mitigation analysis and resubmit.

P 36 LifeMed operates a medevac helicopter that serves the Providence Seward Medical and Care Center on First Avenue.

P 37 5.9.1.1 Water Resources Wetlands Affected Environment

"Common emergent vegetation consists of invasive graminoid species and shrubs of low height because of repeated clearing for airport maintenance." I challenge this statement, especially if it based on the completely bogus invasive weed section wherein 4 of the 8 so-called invasive species were native grasses. The native plants are remarkably resilient and tolerate mowing. There are no invasive shrubs in the Lowland Sedge-Shrub Management Area.

Correct data and resubmit.

P 37 "Coastal Barrens include...salt-killed emergent vegetation such as sedges and sea grasses." What does this term mean? Sedges, sea grasses, and other species present are not salt-killed but adapted to tide immersion (hylophytic). **Correct data and resubmit.**

P 37 other uncatalogued streams support anadromous species including Pink, Silver, Chum, and 3-spine Sticklebacks. **Correct data and resubmit.**

P 38 first paragraph: this is a succinct summary of the significance of the project area wetlands: "Rivers and streams in the project area have moderate to high value for the aquatic habitat function... salmon rearing and spawning habitat..." "Coastal Barrens and Salt Marsh provide high value wildlife habitat for shorebirds, waterfowl, bald eagles, and moose." (Add coyotes, black bear, brown bears, and river otters.) "Riverine wetland habitats also function in groundwater discharge, erosion control/flow regulation, sediment/toxicant retention." "Vegetated wetlands Riverine Tall Scrub, and Riverine Broadleaf Forest provide high value erosion control due to their ability to absorb flood waters and create functional drag."

P 38 5.9.1.2 Environmental Consequences of the Alternative.

This is a serious list of adverse effects affecting the jurisdictional wetlands. The impacts to the Pacific Salt Marsh and tidelands are especially troubling. **Address and mitigate.**

P 41-42 5.9.1.3 Minimization and Mitigation

Since the airport is built in a wetland/upland complex, it is not possible to avoid wetlands. However, every foot of the proposed runway that can be pushed north, away from the tidal marsh, makes a huge difference. Move the runway north; every foot would to help reduce the impact of any extension into the tidal marsh. I hope the planners will consider this and any other options to move the runway back from the fragile tidal marsh.

Minimize impact to wetlands: Move RW 16-34 north. Reduce length. Use steeper side slopes if possible. Use clean rock, not recycled asphalt products.

Removal of TW A, D, and E may indeed help reestablish hydrological connectivity. Regrading of the 0.3 acres may result in 0.3 acres of weeds, quick to establish on disturbed, exposed ground, unless reseeded with appropriate native plants.

Minimize impact: place material stockpiles on already hardened surfaces in the uplands instead of on native vegetation. Remove excess materials off-site; do not store on site.

The contractor must be required to revegetate with native seeds otherwise it will be a direct placement of invasive weeds, as per page 51 "using only certified seed mixes on projects and BMP for cleaning construction equipment prior to transport to project sites could mitigate establishment of invasive species."

Mitigation for impacts to ~25 acres of wetlands should include conservation of wetlands in the area with a conservation easement. A potential privately owned parcel is KPB Parcel ID #14529003 at the mile one Nash Road wetlands, on the east side of Nash Road adjacent to Cook Inlet Region KPB #14511001and across from ADFG KPB #14502217.

P 43 "The Proposed Action's RW construction and float plane channel would not alter hydrology to wetlands on site. The area would continue to be inundated by flood waters from Resurrection River and Resurrection Bay, and the functions and values for wetlands to fill areas would be sustained." ETC. As previously noted, extending the new RW 16-34 and associated fill, riprap, and armoring into and across the salt marsh pond, and into the high salt marsh coastal berm island will drastically alter the natural hydrology of this ecosystem. **Provide substantiating data and resubmit.**

P 44 As stated previously, allowing RW 13-31 to eventually breach will restore part of the original floodplain while endangering the salt marsh and AKRR infrastructure. This Plan should include maintenance of RW 13-31 as a levee, not a runway to prevent the Resurrection River from breaching the runway and flooding the airport.

P 47 Currently the Seward Airport does not operate under a Multi-Sector General Permit for storm water discharges. If and when the airport does have a de-icing program, or generate other significant contaminants, storm water discharges should be regulated to protect the salt marsh and wetlands.

P 48 5.10.1.1 Past, Present, and Reasonably Foreseeable Future Actions

"For this project, generally, the geographic scope includes the head of Resurrection Bay area that is characterized primarily by commercial and industrial activities." What about the rest of the head of Resurrection Bay that is not commercialized or industrialized? The report includes the rest of the Resurrection Bay tidal coastal ecosystem repeatedly as the "elsewhere" where all the wildlife, including birds, is supposed to relocate. Providing supporting data for this "elsewhere" habitat is essential. **Expand geographic scope to include the entire head of Resurrection Bay.**

P 49

Seward Marine Industrial Center (SMIC) and Spring Creek Correctional Center are NOT part of this geographic scope, and should be deleted in all references.

Appendices are variously labeled in the table of contents and in the report. For clarity and consistency, relabel and add page numbers.

Appendix D: Birds of Conservation Concern, etc

D-1 Add Bristle-thighed Curlew

D-2 really doubt both Horned and Tufted Puffin, Kittlitz's Murrelet entries at airport I did not vet this thoroughly.

Appendix E: Wetlands etc

Notable lack of investigation of Lyngbye sedge lowland marshe, salt marsh, beach ryegrass coastal barrier high marsh, and mud flats.

E-14 "Wetland types that are regionally rare receive higher scores." The Salt marsh is regionally rare and should have received a very high score.

E-14 "Common emergent vegetation consists of invasive graminoid species such as bluejoint (*Calamagrostis canadensis*), polar grass (*Arctagrostis latifolia*), tufted hair grass (*Deschampsia caespitosa*) and glaucous bluegrass (*Poa glauca*)." As previously noted, this is in error. These are all native grasses.

E-15 Wetlands provide important functions: "Functional ratings for erosion control/flow regulation and sediment/toxicant retention are rated as moderate to high in the some of the riverine and lowland wetland habitats. Vegetated types, Riverine Tall Scrub, Riverine Broadleaf Forest, and Riverine Needleleaf Forest, were rated high for erosion control because taller, shrubby or forested types have greater capacity to absorb flood waters and increase frictional drag. Lowland depression types, such as Ponds and Lowland Sedge Meadow, were rated moderate because they may serve as containment for some flood waters. Moderate values for erosion control were assigned to the forested and shrubby riverine types because of their potential to increase drag and to anchor shorelines."

P E-51 Field Trip Report from September 30, 2016 for 3 hours total

"Other than changes to vegetated and unvegetated wetlands islands in the Resurrection River, personnel did not observe any significant changes to vegetation to the 2004 delineated wetlands." These changes occurred east of the main RW 13-31, not west, as noted below.

"Except for the two PEM1/SS1B wetlands at the north end of the two runways, all other delineated wetland had saturation to the surface or had standing water from 1 to 12 inches. Analysts did not check hydric soils since as stated above, the majority of wetlands have saturation to the surface or standing water year round."

The wetlands should be treated as such with avoid, minimize, and mitigation actions.

E-52 "west" should be "east" Correct and resubmit.

"A. Wetland boundary changes since 2004 Since 2004, islands and shore wetlands in the Resurrection River to the **west** of the main runway have changed location, size, and vegetation status. Most wetland islands are now unvegetated compared to 2004 likely from gradual increase in the rate of flood events since 1995 (pers. comm with DOT&PF Central Region hydrologic engineer). For example, flooding overtopped the main runway 11 times in 2010. Also, minor changes to 2004 wetlands boundaries occurred along the mean high tide line where a main estuary is located on the **west** side and southern end of the main runway (Runway 31)."

E-52 this is correct

"The wetlands that changed the most between 2004 are the island and shoreline wetlands in the Resurrection River along the **east** side of the main runway."

E 53 "west" should be "east" Correct and resubmit.

V. Conclusions The 2004 wetlands delineation for hydrophytic vegetation, hydric soils and wetlands hydrology remains valid except for changes to island and shoreline wetlands on the Resurrection River on the main runway **west** side.

E 54 Figure 1

It would be more relevant to superimpose the proposed Alternative over NW1 Wetland Classes Figure 1. That would more clearly show the impact of extending the new RW 16-34 into the salt marsh and barrier island, and the impact of dredging out the 100° wide x 8' deep x >750' float plane channel.

E-21 Appendix A Photographic Log

E-27 Appendix B: Updated 2004 Wetland Field Delineation

2004 data forms are much more complete with associated plant species and other data entries. However, they do not address this Proposed Alternative project area and are mostly irrelevant. Cow moose with 2 calves noted on SW03.

How were these 10 sample sites chosen? SW01, SW02, SW03 and SW08 are on AKRR land, not within the Seward Airport boundary. Why were these sites noted? The AKRR filled the pond south of SW01 in 2015 (I believe). The AKRR clear cut the trees south of SW08, leaving only a fringe west of Airport Road. In 2018, they began filling this acreage with gravel. DOT clear cut the trees from SW05, SW06, and SW 07 since 2016. That leaves 5 of the 10 sites relevant. **Redo this wetland analysis to include relevant data sites. Update and verify this data. June or July field study would be better than September, when plants are dormant.**

The critical areas, ie coastal ecosystem including the salt marsh, beach ryegrass berm, associated jurisdictional Lyngbye sedge wetlands areas south of the new RW 16-34 are not included and should be.

E61

SW03 (Site at north end of forest along Airport Road.

Typo: "Picnea" should be "Picea", and it's probably not sitchensis but P. x lutzii.

Populus tremuloides is very unusual in Seward. The dominant Populus is P. balsamifera ssp. trichocarpa.

E 65

SW04 (Site in south of Airport Road cul de sac at edge of forest)

P. sitchensis is probably P. x lutzii.

Equisetum palustre and Carex aquatilis are not salt tolerant; this area is inundated by spring and other high tides.

Additional Resources:

http://www.cookinletwetlands.info/Seward/Ecosystems/Tidal.htm

"The largest Tidal Ecosystem wetlands form behind beach berms at the mouth of the Resurrection River."

"Plant Relationships

Open beach fronts support bare ground (gravel) and scattered seaside sandplant (*Honckneya peploides*) and tundra alkaligrass (*Puccinellia tenella*). Beach berms support Beachrye (*Leymus mollis* ssp. *mollis*) often with yarrow (*Achillea millefolium*). Marshes behind the berms are almost wholly composed of Lyngbye sedge (*Carex lyngbyei*). A

diverse plant community dominated by Beachrye and yarrow occupies a drier, infrequently inundated zone sometimes encountered above the marsh."

"NWI and HGM

NWI classifies Seward are Tidal Ecosystem wetlands as E2EM1, Intertidal Emergent Persistent Estuaries.

In an HGM classification (Tiner, 2003) the Tidal wetlands not found in estuaries are classified as Macrotidal Bidirectional Barrier Beach Fringe wetlands. The Tidal Ecosystem wetlands behind the Resurrection river are Macrotidal Bidirectional Bar-Built Estuarine Fringe wetlands."

http://accs.uaa.alaska.edu/files/vegetation-ecology/rare-ecosystem-descriptions/PacificTidalMarsh BpS.pdf

Tidal marshes develop where relatively flat land receives periodic input of tidal waters (Frohne 1953). As an interface between the ocean and land, tidal marshes combine aquatic and terrestrial habitats, anoxic and oxic conditions, as well as saline and fresh waters (Stone 1984). This dynamic environment supports life highly-adapted to saturation and saline conditions. Along the Gulf of Alaska coastline, tidal marshes are uncommon, developing as marshes in protected topographic pockets, or larger complexes on the major river deltas (Figure 1; Viereck et al. 1992). In this region they are one of Alaska's most critical habitats. As staging areas for millions of migrating shorebirds, geese, and swans, this biophysical setting supports nine animal taxa of conservation concern and provides important rearing habitat for salmon. Tidal marshes are also one of Southeast Alaska's most impacted biophysical settings due to the location of villages, towns and cities adjacent to and sometimes on these flat, yet fragile habitats. Pacific tidal marshes are considered unique from those found in Cook Inlet and western Alaska due to their wet, mild maritime climate, a lack of permafrost and the general dominance of Carex lyngbyei. The dominant sedge in Beringian tidal marshes is generally Carex ramenskii (Batten et al. 1978).

...At the lowest elevation exposed at low tide, barren mudflats may be interspersed with the green algae Fucus distichus. These mudflats support benthic invertebrates (bivalves, polychaetes, amphipods, and chironomids; Powers et al. 2002) that contribute heavily to the diet of the migrating shorebirds (Senner 1979).

Above these sparsely vegetated mudflats, the low marsh generally occurs below or at mean high tide level (Taylor 1981). The low marsh supports halophytic graminoids of the Puccinellia genus. Other forbs include Cochlearia groenlandica, Fucus distichus, Eleocharis palustris, Glaux maritima, Plantago maritima, Potentilla anserina ssp. egedii, Ranunculus cymbalaria and Triglochin maritima, (Batten et al. 1978, Hanson 1951, Crow 1968, Fleming and Spencer 2007, del Moral and Watson 1978, Turner 2010, Vince and Snow 1984, DeVelice et al. 1999, Boggs 2000, Shephard 1995).

The mid marsh occupies the reach of land that is inundated only at the highest tides during the growing season (Crow 1977, Batten et al. 1978). It typically supports dense swards of Carex lyngbyei (del Moral and Watson 1978, Stephens and Billings 1967, Turner 2010, DeVelice et al. 1999, Boggs 2000, Shephard 1995). Less common mid marsh sedges include Carex pluriflora, C.

cryptocarpa and C. glaerosa (Crow 1968, Hanson 1951). With increased elevation, dominance transitions from Carex lyngbyei to associations dominated or codominated by Deschampsia cespitosa and Vahlodea atropurpurea (Stephens and Billings 1967, Crow 1968, Turner 2010).

The high marsh ranges from the highest tide line to the maximum level reached by storm surges during the growing season (Batten et al. 1978). It supports a diversity of salt-tolerant graminoid and forb associations including the sedges Carex mackenziei, and C. pluriflora, and the grasses Calamagrostis canadensis, C. nutkaensis, Deschampsia beringensis, Festuca rubra, Leymus mollis and Poa eminens (McCormick and Pichon 1978, Neiland 1971, Quimby 1972, Turner and Barker 1999, Batten et al. 1978, del Moral and Watson 1978, Turner 2010, Vince and Snow 1984). The forbs Potentilla anserina ssp. egedii, Ligusticum scoticum and Lathyrus palustris typically increase in dominance with elevation across the high marsh (Stephens and Billings 1967, Vince and Snow 1984). The low shrub Myrica gale/Carex lyngbyei and Salix hookeriana associations also occur (Hanson 1951, Boggs 2000).

Conservation Status Rarity: Tidal marshes are widely distributed along the coastlines of Southeast Alaska and the Aleutian Islands, but their small total area (450 km2), and the fidelity of its component species makes this biophysical setting of one conservation concern.

Threats: Due to their landscape position, tidal marshes are highly susceptible to damage from development, oil spills, sea level rise, and earthquake-induced slides and tsunamis. Because tidal marshes in Southeast Alaska provide flat land along an otherwise rocky coastline, cities, towns and villages are often located adjacent to these habitats (e.g. Seward, Juneau, Cordova).

https://www.adfg.alaska.gov/static/species/wildlife_action_plan/appendix5_wetland_habitats.pdf
A Literature Survey on the Wetland Vegetation of Alaska-DTIC
Appendix 5.3 Wetland Habitats

Pages 6-9 provide excellent information on the ecology of a salt marsh.

http://www.homerswcd.org/user-files/pdfs/ManagingKPWetlands2014.pdf

Coastal Habitats of Southeast Alaska

https://www.conservationgateway.org/ConservationByGeography/NorthAmerica/UnitedStates/alaska/seak/era/cfm/Documents/5.3 Coastal habitats.pdf

See page 7-9 Estuaries, tide flats, sedge-dominated low salt marsh, grass-dominated high salt marsh, supratidal meadows, shrub thickets, spruce forests.

The Mendenhall Wetlands, a globally recognized Important Bird Area Armstrong, Carstensen, Wilson, Osborn https://www.naturebob.com/sites/default/files/Mendenhall%20Wetlands%20book.pdf

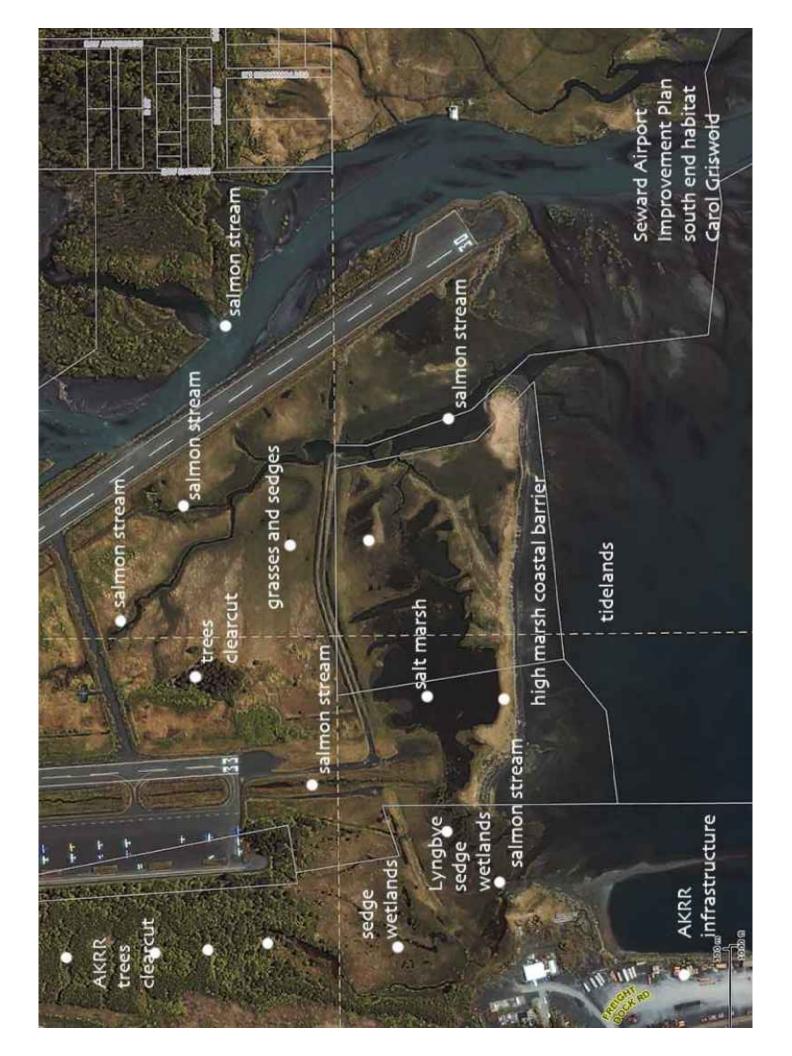
The Importance of Lyngby's Sedge by Robert Armstrong https://www.naturebob.com/importance-lyngbys-sedge

Stickleback-Juvenile Sockeye Salmon Interactions

https://www.naturebob.com/sites/default/files/KARLUKCH8.pdf

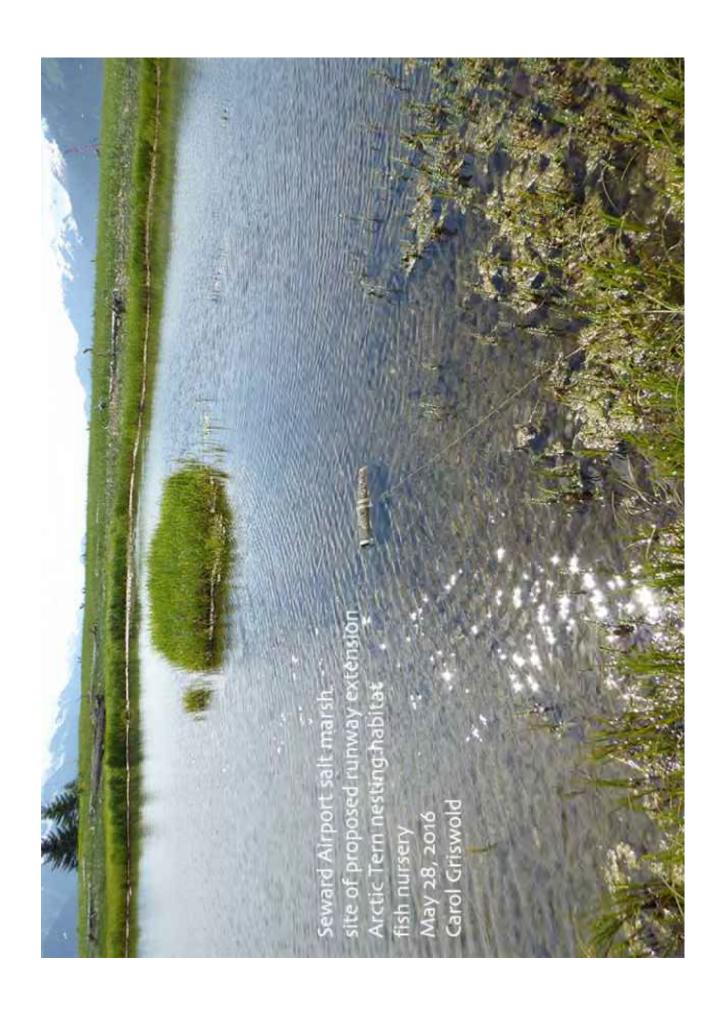
Sticleback life history, and sticklebacks as a main source of prey for birds, food for river otters, shorttail weasels, brown bears.

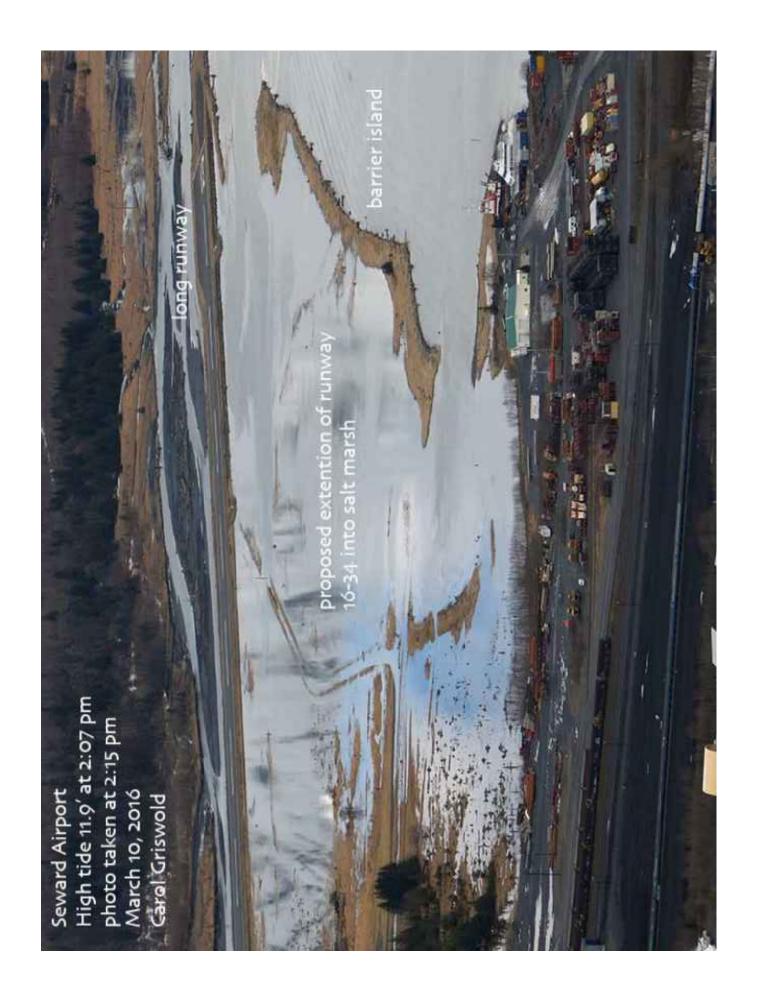
Mitigation in Alaska for Regulatory Permitted Activities: 2008 Mitigation Rule https://www.poa.usace.army.mil/Portals/34/docs/regulatory/Mitigation%20Brochure.pdf

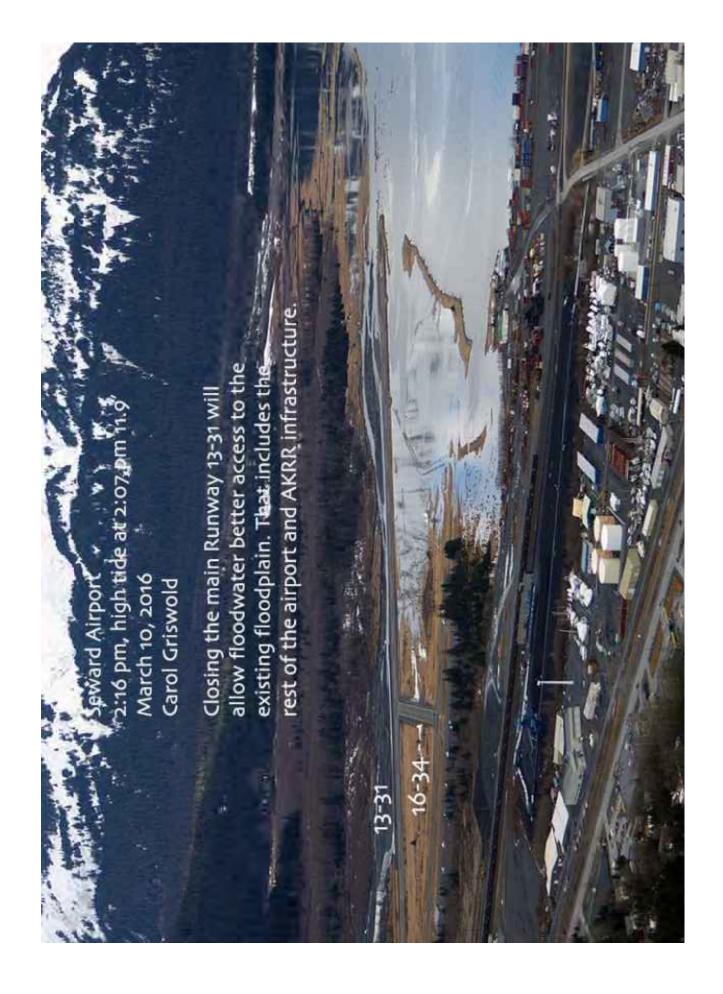






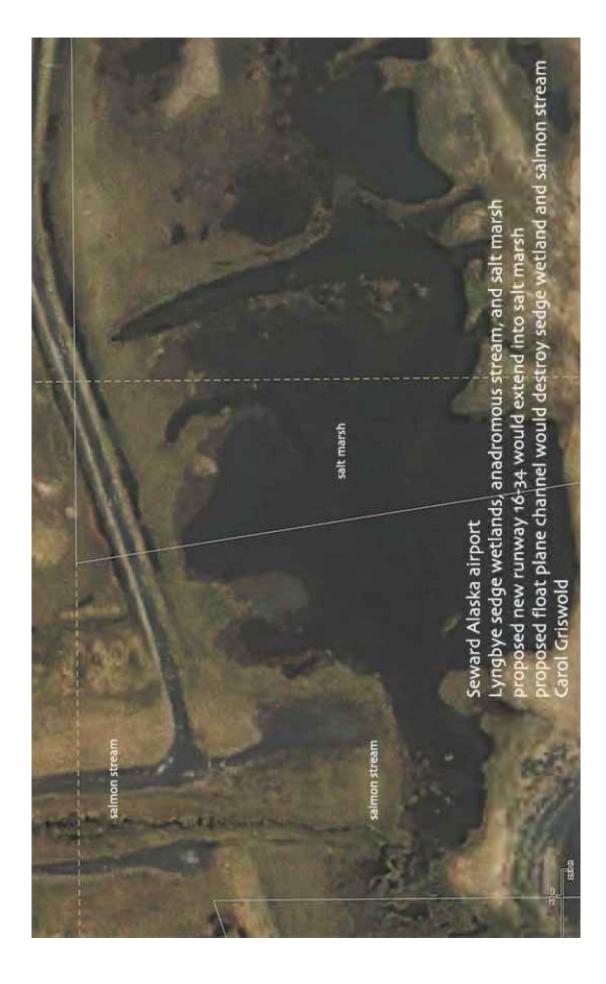












From: Chuck DiMarzio < chuckd@alaskasealife.org

Sent: Wednesday, January 9, 2019 12:06 PM **To:** Solstice AK <<u>solsticeak@solsticeak.com</u>> **Subject:** Seward Airport "Improvements"?

Hello,

I am a concerned about the affects that this project will have on the environment as well as its need. As a resident of this community for almost 20 years and frequent visitor to the area that will be altered by this project I disagree with several of the statements made in your environmental assessment.

First off, "habitat is not limited at the head of Resurrection Bay and it is expected that birds could move to other nearby locations", this is flat out not true. There is an Arctic Tern nesting colony that utilizes the area that will be filled by this project and this group of birds has been forced to utilize this location over recent years by recreational fisherman utilizing other areas at the head of the bay. This colony will be destroyed. There is no other suitable habitat for the Terns nor is there other suitable habitat for the many other migratory waterfowl that utilize the ponds that are to be filled.

Second, "Non-adverse impacts to Essential Fish Habitat (EFH) are expected where instream work occurs", again this is not the case. I am an aquarist at the Alaska Sealife Center and as such I regularly take samples in the waters of the area to be affected. This area is a critical nursery for young fish including but not limited too, Dolly Varden, Pink Salmon, Chum Salmon, Sticklebacks, Starry Flounder, and Staghorn Sculpin. How can filling in slews and ponds that these fish use have not negative affect on them. If I were to bulldoze your house and fill in the hole where it once stood, tell you to go home and have a nice day I think that may have an "adverse impact" to your life. But that's just me thinking out loud.

The need for this project is definitely something that I question. We are never getting commercial flight to Seward as the weather and demand does not facilitate this. Medical emergencies can be evacuated via helicopter.

Lastly may I suggest someone doing an honest assessment of the wildlife that uses the area that will be affected during the months of May or June when the area is not frozen so that a true representation can be procured.

Thanks
Charles DiMarzio



Chuck DiMarzio
Aquarist III
Alaska SeaLife Center
P.O. Box 1329 • 301 Railway Ave • Seward, AK 99664
Direct: 907-224-6363

Fax: 907-224-6320 www.alaskasealife.org From: Angela Smith < Angela Smith @pdceng.com > Sent: Wednesday, January 16, 2019 3:57 PM
To: Scott Reierson < sareierson @gmail.com >

Cc: Royce Conlon < RoyceConlon@pdceng.com >; Edgar Tinajero < EdgarTinajero@pdceng.com >; Robin

Reich < robin@solsticeak.com>

Subject: RE: Seward Airport Staffing Enquire

Hi Scott - it was nice chatting with you too!

I appreciate your enthusiasm for the community and the airport project. We will make sure you get on the mailing list!

Best, Angela

Angela M. Smith, PE

Senior Associate | Aviation Group Manager | Civil Engineer

PDC ENGINEERS

2700 Gambell St. Suite 500, Anchorage, Alaska 99503 | 907.743.3200

From: Scott Reierson <sareierson@gmail.com>
Sent: Wednesday, January 16, 2019 3:29 PM
To: Angela Smith AngelaSmith@pdceng.com>
Subject: Seward Airport Staffing Enquire

Hi Angela, great to talk with you guys about the airport project. Im looking forward to updates through the mailing list you talked about. I've attached my resume below. Again if you find my skill sets or knowledge of Seward and it's stakeholders of use, I would be thrilled with the opportunity to work on the project.

All the best

Scott Reierson 907 362 1987

From: Royce Conlon <RoyceConlon@pdceng.com>

Sent: Wednesday, February 13, 2019 6:41 PM

To: Beaton, Barbara J (DOT) <barbara.beaton@alaska.gov>

Cc: Dennison, Travis A (DOT) <travis.dennison@alaska.gov>; Robin Reich <robin@solsticeak.com>; Erica Betts <EricaBetts@pdceng.com>

Subject: Seward Airport - Public comment from Steven Leirer - see phone log below.

2/13/2018	EN	Received call from Mr. Leirer; he owns property adjacent to the airport that is identified for acquisition, he
		indicated his land interest wasn't the reason for the call, rather his reason was about the overall selection of the alternative and his concern with abandoning the main runway 13/31. He wanted to talk about the long-term impacts what he believes will occur to the ARRC docks and the city harbor. He had been at the public meeting and understood from talking to the hydrologist (Paul Janke) that the intent of this project was to allow the runway to be breached. He believes this will cause sediment to move downstream and accumulate at the entrance to the harbor rendering it unusable by cruise ships and cargo vessels headed to the ARRC facility. He had tried to review the pages and pages materials posted to the website to try and understand the reason for the alternative selected but said he was overwhelmed, so called to get a better explanation.
		He had been reviewing the Scoping report and felt alternative 1.1 was the best option but didn't understand why that alternative wasn't presented at the public meeting. I pointed him to the EA appendix B (which he opened while we were on the phone) – He felt the best option was to construction 1.1 so the raised and enforced runway (13/31) would be a protective dike protecting the ARRC and city harbor. I explained the potential floodway impacts with the alternative 1.1. and the restrictions with using Airport funds for such a project.
		I explained that there are other projects/plans (the Airport master plan, the ARRC master plan and the City of Seward comp plan, area wide floodplain studies etc) that are geared to take a longer/more comprehensive look at such things and that our Airport Improvement project, was primarily focused on providing a safe runway for the near-term need of the aviation community and that the existing runway 13/31 with it's frequent over topping and closures no longer met the needs.
		He was disturbed that the Airport Improvement project couldn't do more and plans to provide written comment on the project urging a longer term look at maintaining the runway 13/31 embankment to protect other assets of the State and the City. He indicated that he would likely cc a lot of people and not be very popular about raising a ruckus. Our conversation was very pleasant, but he definitely feels strongly that the various federal and state agencies need to work together for an overall longer term solution.
		I explained I would provide a summary of our conversation to the project file and provide a copy to the DOT project manager, Barbara Beaton. He recalled talking to her at the meeting.
		During the phone call I also received background information about the Lierer family history, which was interesting, but not pertinent to the project, thus not captured in this phone log.

Royce L. Conlon, PEPrincipal Civil and Environmental Engineer

PDC ENGINEERS

1028 Aurora Drive, Fairbanks, Alaska 99709 | 907.452.1414 Facebook | LinkedIn | Twitter | www.pdceng.com

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December 2018 Stakeholder Working Group Documentation

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Meeting Notes and Report

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MEMORANDUM

Date: January 9, 2019

To: File

From: Robin Reich and Olivia Cohn (Solstice Alaska Consulting, Inc) with input and

review from Royce Conlon and Erica Betts (PDC Engineers, Inc.)

Subject: Summary of 12/12/2018 Stakeholder Working Group Meeting #5 –

Seward Airport Improvements Project (#Z548570000)

This document provides a summary of the fifth Seward Airport Improvements Project Stakeholder Working Group (SWG) meeting held on December 12, 2018, in Seward, Alaska.

Materials distributed in advance of the meeting included the meeting agenda (Figure 1); Draft Environmental Assessment (EA); and October 2, 2017 SWG Meeting #4 notes.

The SWG was invited to this meeting on November 9, 2018 via email, and meeting materials were distributed via email (project website link and attachments) on December 11, 2018. The SWG meeting began at approximately 2:00 pm.

Document review notes:

- This meeting was accompanied by a PowerPoint presentation, which is attached and referred to within this document as it was referenced during the meeting.
- Points of clarification added to this summary after the meeting are provided in brackets and footnotes throughout the document.



Meeting Agenda and Overview



- Introductions and Purpose of the Meeting (Robin Reich, Solstice Alaska Consulting) (2:00 pm)
- Recap. of the Project to Date (Barbara Beaton, DOT&PF Project Manager) (2:10 pm)
- Draft Environmental Assessment (EA) (Erica Betts, PDC Engineers) (2:20 pm)
- Status of Project Activities and Next Steps (Royce Conlon, PDC Engineers) (2:50 pm)
- Open Discussion, Questions, Comments on EA (Robin Reich, Solstice Alaska Consulting) (3:00 pm)
- Adjourn (4:00 pm)

Please remember to submit comments regarding the Draft EA by December 31, 2018.

Pre-meeting packet:
Draft Environmental Assessment, SWG meeting #4 notes
Thank you for your time and participation!

Project Website: www.dot.state.ak.us/creg/sewardairport

Figure 1. SWG Meeting #5 Agenda and Overview

Meeting Introductions and Purpose

PowerPoint (PPT) slide reviewed during this portion of the meeting: Project team
Robin Reich, Solstice Alaska Consulting, Inc (SolsticeAK), began the meeting with a welcome and introductions. Table 1 lists the meeting participants.

Table 1. Meeting Participants¹

SWG Membership	Name
Alaska Railroad Corporation (ARRC)	Christy Terry
Alaska Wing Civil Air Patrol	Brandon Anderson
City of Seward	Jeff Bridges, Brennan Hickok
Kenai Peninsula Borough (KPB) Seward/Bear	Stephanie Presley
Creek Flood Service Area	
DOT&PF Maintenance	Sean Montgomery
DOT&PF Project Management, Central Region	Barbara Beaton, P.E., Project Manager,
	Travis Dennison, Paul Janke
DOT&PF, Peninsula District	Kevin Knotek,
Non-SWG member of the public: Local Operator	Duke Marolf
Non-SWG member of the public: Seward Air	Denny Hamilton
Consultant: PDC Engineers, Inc. (PDC)	Royce Conlon, P.E., Consultant Team Project
	Manager, Erica Betts, P.E., Project Engineer
Consultant: SolsticeAK	Robin Reich, Olivia Cohn

Recap. of the Project to Date

PPT slides reviewed during this portion of the meeting: Project Recap. and Schedule & Process
Barbara Beaton, DOT&PF, provided a summary of background research and actions that led to this
point in the project process and led the conversation.

Preliminary Research. Ms. Beaton said that the SWG was formed in 2014 as the first step to begin the Seward Airport Improvements Project process. Knowing that the project would be a long effort, the project team wanted to ensure that the community and stakeholders understood the need for the project.

- Master Plan. The process also began by reviewing the City of Seward's existing Master Plan. It
 was assumed that the Master Plan preferred alternative would be how the project would
 proceed; however, this alternative did not meet the project's purpose and need due to
 continual flooding. In 2013, there were 11 floods that overtopped the runway (RW), and the
 project team re-looked at the project area activity and forecast.
- **Seward Interviews.** The project team interviewed agencies, pilots, and the City of Seward regarding future development, as well as air carriers to determine their interest in coming back to Seward. Carriers stated that there was insufficient demand in Seward and had therefore asked to be let out of contracts.
 - There is limited access to Seward because the airport requires a circle approach when landing. Pilots stated that they wanted a new approach, and carriers want a better approach and more demand. A public approach is impossible due to Seward's terrain.

¹SWG members who were invited but unable to attend included: Federal Aviation Administration, Mike Edelmann, and Lease Holder, General Aviation Pilot, Community Member, Dennis Perry.

- **Demand.** The demand since the 1990s, when the airport was in operating condition, was only sufficient for a B-2 aircraft, which is "one step up" from private aircrafts, and allowed medevacs in and out of Seward.
 - o It was decided that the family concept could be used to design the RW.
- Meeting Demand. It was determined that only one RW is needed to support demand.
 - Royce Conlon, PDC, added that wind factored into the decision about the RW, as well. Ms.
 Beaton agreed, emphasizing that the wind on the smaller RW is better.

Alternative Selection. Ms. Beaton summarized that the process for moving forward was narrowed down into three alternatives. Alternative 1 focused on improving and maintaining the main RW; Alternative 2, which is now the Preferred Alternative, focused on creating a bigger RW out of the small RW; and, Alternative 3, which the City of Seward supported, focused on extending the small RW to 4,000 feet (ft). Seward is a Community Class Airport, and Alternative 2 would keep the RW at 3,300 ft, which is the standard for a Community Class Airport.

- Flood Insurance Rate Maps (FIRMs). Alternatives 1 and 3 would both require a re-do of the FIRM map. Alternative 1 would require this due to in-river work and associated impacts, and Alternative 3 would require this due to tidelands impacts.
- Conditional Letter of Map Revision (CLOMR)/Letter of Map Revision (LOMR). Christy Terry, ARRC, asked if it is easy to get a CLOMR/LOMR and what the timeline delay would be to do so.
 - Ms. Beaton responded that the timeline delay would be about two years. Ms. Terry noted that she didn't think it would be that long, adding that it would take longer to create a whole FIRM map, but a CLOMR/LOMR is a much faster process.
 - o Erica Betts, PDC, noted that, a map revision would impact landowners.
 - Ms. Terry noted that the land owned by the Trust is not going to be developed.
 - Ms. Beaton added that (for Alternative 3) there would be impacts to 22 properties with a 4 ft. back up of water; there would be less than ½ ft. for Alternative 2.
- Alternative 1. Ms. Terry redirected discussion to the tidelands option.
 - O Ms. Beaton said that this option would increase costs by thousands of dollars and change the schedule by two years due to preliminary changes to flooding costs and maintenance. The permitting process would be much more difficult for the 1st and 3rd Alternatives. All of this is laid out in the position paper and scoping report available on the project website.²
- Alternative 2 Federal Aviation Administration (FAA) Requirements. Ms. Conlon added that if the airport RW was built to 4,000 ft, it would not meet the FAA requirements for funding.
 - Ms. Beaton said that the process is looking at draft design and would like to acquire funds for the 4,000 ft so that the groundwork is laid for it to be done (in the future).
 - o Ms. Beaton said that the reasoning for choosing Alternative 2 as the Preferred Alternative is laid out (in the scoping report and position paper). When Alternative 2 was moved forward as the Proposed Alternative, the City (of Seward) did not have comments. (Former City Manager) Ron Long did not like it as the Proposed Alternative but understood why it was needed.

Environmental Process, Design, and Construction. Ms. Beaton provided summaries of the environmental process and design and construction plans statuses.

²The Seward Airport Improvements scoping report and position paper are available for download from the project website document library at www.dot.state.ak.us/creg/sewardairport/documents.shtml.

- **Environmental Process and Design.** The Environmental Process has started, and the Draft EA has been written focusing on Alternative 2 versus a No Build Alternative. The project is in the design phase for the RW. Permits will be obtained while the project team is finishing design.
- **Construction.** (Construction) funding is contingent on 2019, and the project team is working on the nomination. This project is first in line for 2019 funding if the project is ready. Otherwise, the project will be funded in 2020 barring a real estate issue with FAA.
- **Funding.** Jeff Bridges, City of Seward, asked about the cost to begin the project again (to complete the 4,000-ft. option) if they had the \$8.1 million to do it.
 - o Ms. Conlon said that they did the cost analysis for the 200 ft (extension) as a standalone (project) to be ready to do that (in the future).
 - Mr. Bridges asked whether the price would be reduced if they were combined. Ms. Conlon replied that it would depend on the timing. Ms. Beaton stated that maintenance costs would increase, as well, and Mr. Bridges asked if it would reduce maintenance costs to proceed now.
 - o Ms. Beaton asked Mr. Bridges if the City had a plan in mind to get the funding to move forward with a longer RW alternative, and he replied that "miracles could happen."
 - o Ms. Beaton said that they have done surveys and geotechnical efforts since giving the budget estimate to Ron Long for the longer RW.
 - o Ms. Conlon said that a caveat to the costs (estimate for the longer RW) could be balancing the costs of engineering and environmental work.

Draft EA

PPT slides reviewed during this portion of the meeting: Draft Environmental Assessment Purpose and Need, Alternative Selection, Proposed Action figure, Proposed Action text, Non-Issues, Resource Issues, EA Figure slides, Cumulative Impacts

Ms. Betts led a discussion of the Draft EA for the Proposed Action. She noted that the EA has been about 94% federally-funded.

Purpose and Need and Alternatives. The project requires going through the NEPA (National Environmental Policy Act) process, and it was driven by meeting the purpose and need. For a Community Class Airport, it is required to be built to the 3,300-ft RW to meet FAA standards. The process started with several alternatives, which were then whittled down to Alternatives 1, 2, and 3. The Alternative should meet the purpose and need along with environmental input.

- **Significant Impacts.** Because it avoids river fill, Alternative 2 showed the least significant impact. Ms. Conlon clarified that, when comparing alternatives, Alternative 2 showed a "not significant" impact, while Alternative 1 showed a "significant impact," which could drastically alter the project's environmental process, making the choice a "black and white" decision.
 - Ms. Beaton stated that the environmental implications of each alternative were a big part of the reasoning for why Alternative 2 was selected as the Preferred Alternative.
- Design Changes Since Draft EA. Ms. Betts said that, since the project (design) has gone out for review, the design has since been revised: the project eliminated construction in the floodplain, and FAA requires security fencing to keep people out of RWs, so it was added. (She referred to the Proposed Action figure PPT slide to emphasize her points.)

- Ms. Terry said that she noticed fencing to the north area and asked whether the public will be able to maintain access to the area south of the airport. Currently, this area is accessed, and she asked whether it will continually be accessible.
- Ms. Conlon said that people will be able to walk around the fencing to access the shoreline.
 They can only walk the area when the tide is out. If people do cross the area, it would be unsafe to have people walking across the RW.
- Ms. Beaton said that 93.75% of the funding is from FAA and is conditional on the airport meeting FAA requirements.
- Ms. Terry asked whether the fence will be covering the trail. Ms. Betts said the fence will be along the airport boundary.
- Project Components: Material Storage Area, Automated Surface Observing System (ASOS),
 Electrical Equipment Building (EEB), and Runway Protection Zone (RPZ). Ms. Betts said that the designated material storage area will act as a berm, blocking waters from the RW. Ms. Beaton and Ms. Betts clarified that the material storage area is on wetlands.
 - o Ms. Beaton said that it (the RW) will be higher, and the new EEB building will be built (in the same area). The ASOS will be moved to that area, as well.
 - The RPZ will have tree clearing and selective tree clearing will be completed if trees meet a certain height requirement.
- **Property Acquisition.** Ms. Terry asked if the project is purchasing property, and Ms. Betts confirmed that, yes, it is doing so. Brandon Anderson, Alaska Wing Civil Air Patrol, stated interest in Ms. Terry's question about property acquisition.
- Questions and Non-Issues. Ms. Betts asked if there were questions about the Purpose and Need and Proposed Action, and she talked through the Non-Issues. (She referred to the Proposed Action text and Non-Issues PPT slides to emphasize her points.) She specifically noted that climate change was re-defined federally as no longer defined. For Coastal Resources, there is no state protection, and 4(f) Resources for farmlands are not relevant to Seward's land type.
- **Fencing, Pond Access, Recreation.** Mr. Anderson asked about whether fencing would close the pond, stating that it needs to be accessible for fire. Ms. Conlon said that there will be a gate for water access for fires.
 - Mr. Anderson added that this area gets a lot of recreational action. Ms. Conlon replied that
 they are required to get rid of recreation gathering areas in the airport. Also, the update
 for airports says there is to be no farmland in airports, though that does not impact this
 specific project.

Resource Issues. Ms. Betts walked through some of the project's resource issues.

- **Biological Resources.** Ms. Betts emphasized that a lot of information about birds and birding was incorporated (into the Draft EA). A compilation of bird habitat was put together, and the project team has been working with U.S. Fish and Wildlife Service to assess timing and risk issues regarding impacts to birds.
 - Ms. Beaton noted that this information is in the (EA) figures, which were also posted on the wall of the room, should meeting attendees need a closer look. Ms. Conlon mentioned that copies of the EA are also available.
- Wetlands. Ms. Betts said that the work on wetlands was extensive. Because of previous development, most of the airport is located on slightly lower quality wetland areas. The project will impact 25 acres of wetlands.

- Ms. Conlon said that right now the process will see if the impacts are considered significant. Each figure that has been prepared for this meeting contains a summary of impacts and mitigation.
- Ms. Beaton emphasized that if the impacts are considered significant, it drastically changes the environmental process from an EA to an EIS (Environmental Impact Statement), which is a much longer process. She said that this is another reason why the Preferred Alternative was selected.
- Floodplains and Surface Waters. Ms. Betts said that floodplain impacts are a big reason why the Preferred Alternative was selected, as well. The current design (for the Proposed Alternative) is not within the floodplain. After a 1-D analysis of the Resurrection River was completed, they also completed a 3-D analysis. Alternative 2 reduces floodplain impacts with only about 1.5 inches.
 - Stephanie Presley, KPB Seward/Bear Creek Flood Service Area, asked whether FEMA (Federal Emergency Management Agency) data was used for the study. Ms. Betts said that new cross-sections were used.
 - Ms. Presley asked if there was a new base flood elevation (BFE) but with new cross sections. Paul Janke, DOT&PF, noted that the FEMA cross sections were not correct.
 - o Ms. Beaton said that they used what was most accurate.
 - Mr. Janke said that FEMA requires the same data to update the model. They needed to determine the impacts to private properties. They used 2-D to see downstream impacts that reach 8 ft to the side (versus the 1-D for downstream).
 - o It was asked which is more accurate, and Ms. Beaton replied that it is the 2-ft of freeboard above 100 year (flooding). Ms. Presley asked if the process used the new BFE or the FEMA BFE, Ms. Betts noted that they would build the free board higher, and Ms. Beaton said that all of the details are laid out on the hydrology report. Ms. Presley said she has a copy of the hydrology report and can review it again. Ms. Beaton said that this report describes exactly how the analysis was done.
 - Ms. Beaton said that they wanted to build what was safest, so they used the old elevation so that they were building for higher floods, just in case, and to see if changing the CLOMR/LOMR was necessary.
 - Ms. Presley mentioned that the EA references water flowing across the RW creating hydrologic flow. Ms. Beaton said that the details are in the EA. They wanted to build as if it (the RW) will be breached so if/when it happens, they are ready. Ms. Betts added that they would be armoring the RW.
 - O Ms. Beaton stated that the process requires hydrological design by a coastal engineer. The project had a coastal engineer on board throughout the process with FEMA, who has since retired. FEMA has not rehired this position. The project would need to hire a coastal engineer if a different alternative was selected.
- Land Use and Social and Cultural Issues. Ms. Betts stated that the project does not require significant excavations. Ms. Betts also said that social and cultural issues were defined by the NEPA process. Ms. Betts discussed cultural resources issues and land use issues, noting the specific land users in the area and referencing the footprint of the proposed project.
 - The City of Seward owns the adjacent tidelands and the airport directly to the west. Ms. Conlon, (referencing the Land Use Map PPT slide), noted that resource management is shown in yellow.

Cumulative impacts. Ms. Betts noted that, to determine the cumulative impacts for this project, which include impacts associated with this project combined with reasonably foreseeable future impacts, the project team looked at City plans, master plans, and airport plans. When combined with other impacts, some impacts can become significant. This work did not show instances of significant impacts (for this project). Ms. Betts noted that the information is more extensive and made more detailed within the report.

• **Design Changes.** Ms. Beaton noted that some small items were changed after writing the Draft EA including the elimination of staging area fencing. Ms. Betts emphasized that the two changes included: 1) fencing changes and 2) defining the disposal area that was originally defined as a staging area. Ms. Beaton said that if there are questions, they (the SWG members and meeting attendees) should let them know.

Status of Project Activities and Next Steps

PPT slides reviewed during this portion of the meeting: Schedule & Process, Project Activities and Next Steps

Ms. Conlon noted immediate next steps.

Design, Permits, Construction. Ms. Conlon said that in December, they are doing design, moving the project toward constructability.

- Design. With reference to the floodplain, the RW was moved over as far as possible. The 300 ft were needed for the taxiway and RW to meet the FAA standard. The RW trench will help keep it out of the floodway, which was the biggest change from the 65% design to the 95% design. Initially, for resurfacing the apron, the project was unsure if it could meet back up requirements for FAA funding, and Ms. Beaton noted that geotechnical work was done to support the idea. Ms. Betts said that the natural drainage channel will be excavated deeper to allow for float plane access.
- **Permits.** The permit package may be out by the first of the year. It is next in the list after the 95% design review.
- **Construction.** Ms. Beaton said that they are working to have the project ready in 2019. If funding is unavailable, construction will occur in 2020. Currently, the project is already in the state's 2019 fiscal year.
 - Ms. Terry asked how long the RW would be down during construction. Ms. Conlon answered that there will always be an operational RW during construction; this fits with the safety plan for the RW. Ms. Beaton emphasized that either of the RWs will be open at all times.
 - o Ms. Presley asked if the material will be contractor-dependent. She asked if it is possible for the community to make material recommendations. Ms. Conlon mentioned that there are constraints around the material type, and an economic analysis will be done. Ms. Conlon also said that, during the bidding process, materials can be recommended for the contractors to use. Ms. Beaton added that the contractor has to meet the specifications of the bidding process.

Open Discussion, Questions, Comments on EA

PPT slide reviewed during this portion of the meeting: Questions and Discussion The conversation transitioned to further questions and discussion.

- Recreational Access. Mr. Anderson asked if access will be cut off to recreational areas. He stated that there will be a pull back from the community and asked whether there been a discussion about how to mitigate this. Ms. Terry emphasized that if the project team is interested in public comments, they should know that there will be pushback on this issue.
 - Ms. Beaton commented that the project is limited to the constraints of the grant. There
 is not public land that people are accessing for recreation; rather, it is railroad land. It
 would be up to the Alaska Railroad if they wanted to allow people to access it publicly.
 Ms. Beaton also added that they expect the area to be breached by floods.
 - o Ms. Terry noted that rather than arguing this point, she was emphasizing that it is a pitfall; the project will hear back from people on the issue. Ms. Conlon replied that this IS an impact, and they have to ask whether it is significant. Ms. Beaton said that the project expects blowback. Ms. Terry added that she wanted to bring it up so that the project team is aware and prepared. Ms. Conlon reiterated that the project is constrained by the FAA guidance.
 - Ms. Terry said that there is an area where there are two parking spots. Right now, the
 access point is technically airport property. Ms. Betts stated that the parking spaces tell
 people to go on airport property.
 - o Mr. Bridges asked if the 4,000 ft cuts off everything. Ms. Conlon said that, during low tide, the area can be accessed by walking. But, right now people are trespassing.
 - Ms. Reich noted that this issue is not an "only happens in Seward" type of an issue. It happens in a lot of airports needing to balance airport improvement projects with public recreation areas.
 - Ms. Beaton noted that the change to fencing was deliberately added to the figure before this meeting so that people could see the change. The comment period will be left open through the end of the month.
 - o Ms. Conlon stated that the fence will trap animals inside and keep people out. FAA is pushing for the fence.

Railroad Development. Ms. Terry said that the Railroad has done some development in the area. To the south of the airport, the railroad cleared and grubbed this area with a vegetative buffer. They will be actively filling this property for development to support the airport including hangars and a laydown area. They have the SWPPP (stormwater pollution prevention plan) and permits already in place. They want to support the airport with hangars and supportive industries. Ms. Conlon noted that DOT already has a fence.

- Tract 9. It was asked whether the project team has an update regarding where we are for Tract 9, and Ms. Terry noted that Jim may want to give it away. Ms. Beaton: the ROW and RR will need to work out. Contains GA apron and lease apron.
- Airport Layout Plan (ALP). It was asked whether, as part of the project, the ALP will be revised. Ms. Beaton responded, yes, it is about 90% done. It will be a requirement for funding. Ms. Beaton said that there may be land trades, but she is not privy to those conversations. More decisions will be made during the airport master plan.
- **Recreation Impact.** Mr. Anderson asked for clarification regarding the boundary on the right side, (with reference to the Proposed Action figure PPT slide). He asked whether there will there be actions to mitigate for the loss of recreation outside the line, and Ms. Beaton said no.

- **Private Land.** Mr. Janke asked whether some of the property is privately owned, and Ms. Beaton responded no.
- Campground. Mr. Anderson mentioned that a campground was discussed in the area, and noted that it sounds like this (Proposed Action) precludes any activities. Ms. Conlon said that they want it undeveloped because of the river.
- Land Ownership. Mr. Anderson asked if the landowners would be bought out, and Ms. Beaton said they did not want to be bought out. Mr. Anderson noted that the property owner has a different understanding of where property ends. Ms. Conlon said that the area was surveyed and platted and monuments were placed.
 - o Mr. Janke said that we should expect the bankline to change.
 - o Mr. Anderson said the land has not been used in decades.
- **Future Development and Airplane Access.** Duke Marolf, Local Operator, noted that planning is based off of current used. The problem is about limited services, and there is one source for fuel. He asked whether other development is planned.
 - o Ms. Beaton said that the project is in design, and these comments are planning issues. She noted that Jessica Wuttke-Campoamor is the (DOT&PF) aviation planner heading the master plan who could be contacted with these issues. (Ms. Wutte-Campoamor may be contacted at 907-269-0519 or jessica.wuttke-campoamor@alaska.gov.) Sean Montgomery, DOT&PF, commented that her phone number is 269-0519
 - o It was noted that the project is squished between the water and the road, and it was noted that the Railroad may develop the lot adjacent to the airport.
 - Mr. Marolf noted that accessing the airport will be a problem. Ms. Beaton said that the
 fence will have openings, and Mr. Marolf said that they will not be big enough for an
 airplane. Ms. Beaton said that there can be through fence operators, offering Big Lake as
 an example of a GA airport.
 - o Ms. Reich transitioned the conversation to when this would start. Ms. Beaton replied that they are trying to get a grant and said that people should feel free to contact her in the meanwhile. (Ms. Beaton may be contacted at 907-269-0617 or barbara.beaton@alaska.gov.)
- **RW Weight Limit.** Mr. Anderson asked if the weight limit will be lifted. Ms. Beaton answered, yes, but it will be limited to the 3,300 ft RW. Ms. Conlon stated that a design class V2 is a 12,500-(lb) limit, and the main RW has too much hollowness (to safely allow it to be used for heavy weights). Mr. Janke noted that use of the long RW will be allowed during construction, Ms. Beaton noted that the new RW will be stronger, Ms. Conlon added that the weight limit will remain on the long RW during construction, and Ms. Beaton noted that the RW is not for big commercial aircrafts.
- **Permit Timeline.** Ms. Presley asked what day they should expect the multi-use permit. Ms. Beaton said to expect it in the next couple months. The ALP and the environmental document are the priority first. The ALP and EA need to be approved before the project buys property.

Comments. Ms. Reich noted that comments are due on December 31, 2018. (<u>Since the meeting</u>, <u>the comment period was extended to January 9, 2019</u>.) She emphasized that it is helpful to have written comments.

• **Project Contacts.** Call or email Ms. Conlon (907-452-1414 or RoyceConlon@pdceng.com), Ms. Reich (907-929-5960 or robin@solsticeak.com), or Ms. Beaton (contact info. above) any time.

- o Ms. Reich reiterated the project website URL as www.dot.state.ak.us/creg/sewardairport.
- o Ms. Beaton said that if folks have questions, they should let us know.
- A hard copy of the Draft EA is at the Seward Community Library (239 6th Avenue, Seward) and Anchorage DOT&PF office (4111 Aviation Avenue, Anchorage).

Adjourn

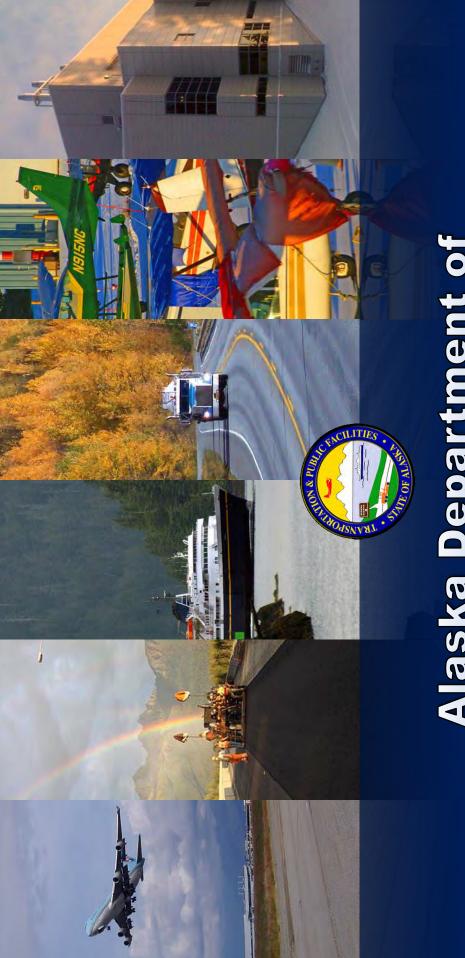
The meeting concluded at approximately 3:35 p.m.

Post-Meeting Errata

Since the Draft EA was made available to the public but prior to the December 12, 2018 SWG meeting, Seward Airport Improvements Project design moved forward. The EA figures that incorporated these design updates were reviewed during the December 12, 2018 SWG meeting. Following this meeting, an Errata was published on the project website document library at <www.dot.state.ak.us/creg/sewardairport/documents.shtml> on December 20, 2018 to detail changes to the EA figures and document and highlight where they could be found. An announcement was distributed via email on December 21, 2018 to approximately 123 recipients, including all SWG members and December 12, 2018 meeting attendees.

Materials Presented

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Transportation & Public Facilities Alaska Department of

Seward Airport Improvements Project (#2548570000)

Stakeholder Working Group Meeting

December 12, 2018





Recap. of the Project To Date Barbara Beaton, DOT&PF



Project team

ADOT&PF

- Barbara Beaton, P.E.
- Project Manager
- Paul Janke
- State Hydrologist
- Travis Dennison, P.E.,
- Consultant Coordinator

Solstice Alaska

- Robin Reich
- Public Involvement Coordinator/Biologist
- Olivia Cohn
- Public Involvement Specialist

PDC Engineers

- Royce Conlon, P.E.
 - Project Manager
- Edgar Tinajero, P.E. & Brian Hanson, P.E
- Project Engineers
- **Erica Betts**
- Environmental Analyst

H & H Modeling

- Ken Karle, P.E.
- Project Hydrologist

Shannon & Wilson

- Kyle Brennen, P.E.
- Geotechnical Engineer



Project Recap

- Stakeholder Working Group Meetings
- First Meeting November 19, 2014
- Second Meeting July 21, 2015
- Third Meeting April 20, 2016
- Fourth Meeting October 2, 2017
- Public Meetings
- September 2014
- April 2016
- Scoping Report published June 2017
- Position Paper published October 2017
- Draft EA, Public Review November 2018
- 95% Design December 2018



Schedule & Process



Project Scoping

Environmental At least 2+ years

Document Approval

NEPA Scoping

Permitting

We are here

Right of Way Acquisition Up to 2 years

Preliminary

Local 35%

Review PS&E 95%

Airport Design

Plans In Hand

%59

Final PS&E 100%

Construction

2019 or 2020 depending on construction funding availability

We are here

Public Involvement

This schedule is dependent upon a number of variables and is subject to change.





Erica Betts, PDC Engineers



Oraft Environmental Assessment Purpose and Need

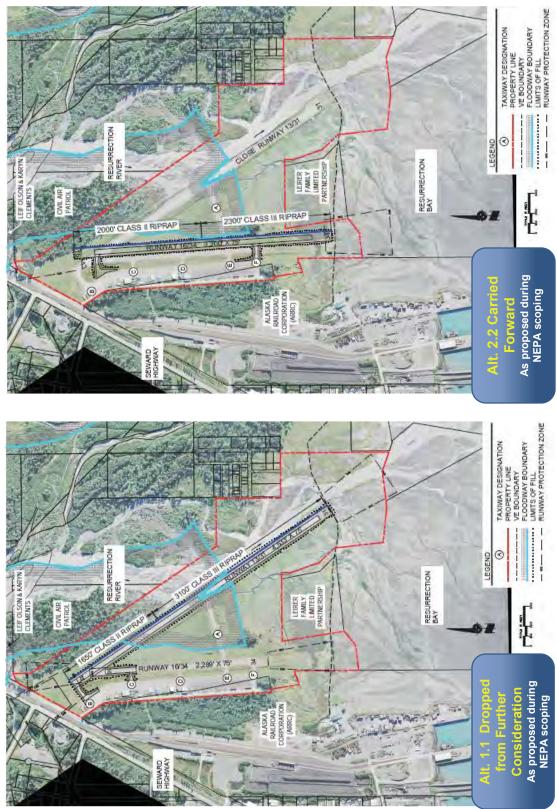
Protect airport from further flood damage and comply with Federal Aviation Administration Standards

- Maintain minimum Runway length of 3,300 ft
- Meet Runway and Taxiway dimension standards
- Construct flood protection for 100year flood
- Provide minimum of 95% wind coverage including cross-winds
- Mitigate approach obstructions and incompatible RPZ uses

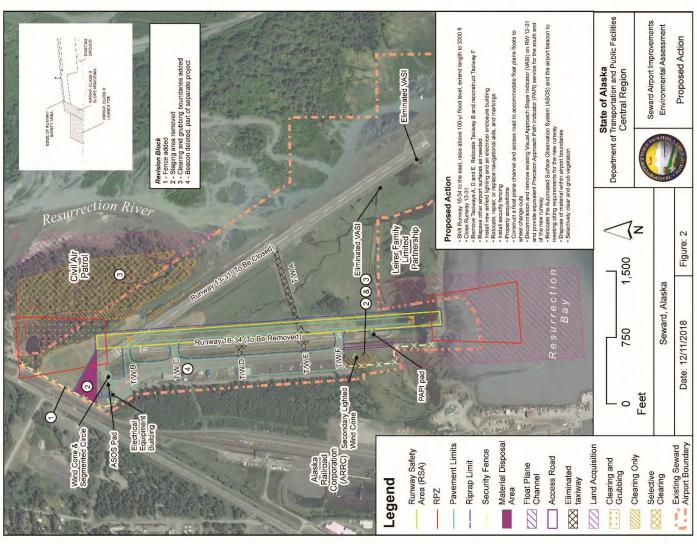
- Construct Runway with bearing capacity for occasional operations by larger aircraft (Beech 1900, etc)
- Provide reliable airport lighting
- Accommodate aircraft change out from floats to wheels
- Ensure sufficient service roads
- Resurface apron and support areas

Alternative Selection











Oraft Environmental Assessmen Proposed Action

- Close Runway 13-31
- Shift Runway 16-34 to the east, raise above the 100 year flood level, and extend to 3,300 ft.
- Install riprap armor to new runway
- Relocated Taxiway B and reconstruct Taxiway's C and F
- Remove Taxiways A, D and E
- Repave airport apron
- Install new airfield lighting and an electrical enclosure building
 - Relocate, or replace navigational aids, and markings
- Install security fencing
- Property acquisitions
- Construct a float plane channel and access road to accommodate float plane floats to wheel change-outs
- Decommission and remove existing Visual Approach Slope Indicator (VASI) on RW 13-31 and provide equivalent Precision Approach Path Indicator (PAPI) service for the south end of the new runway.
 - Relocate the Automated Surface Observation System (ASOS) to meet siting requirements for the new runway.
- Dispose of material within airport boundaries
- Clear and grub vegetation



Oraft Environmental Assessmen Alternatives Comparison

Non-Issues

- Air Quality
- Climate
- Coastal Resources
- DOT&PF Section 4(f)
- Farmlands
- Visual Effects
- Groundwater
- Wild and Scenic Rivers

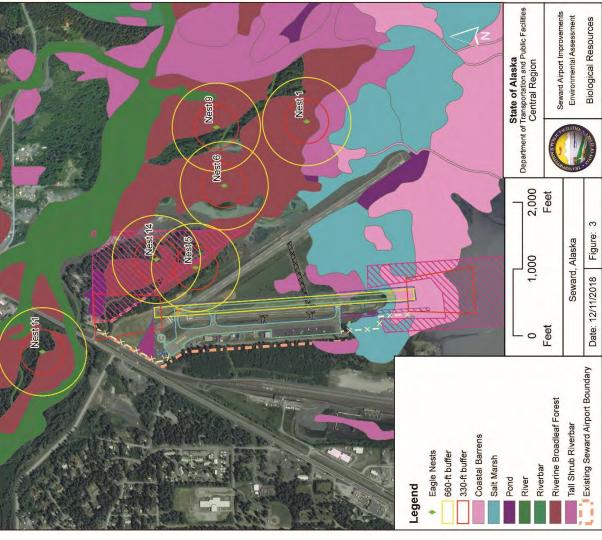


Oraft Environmental Assessmen Alternatives Comparison

Resource Issues

- Biological Resources
- Wetlands
- Floodplains
- Surface Waters





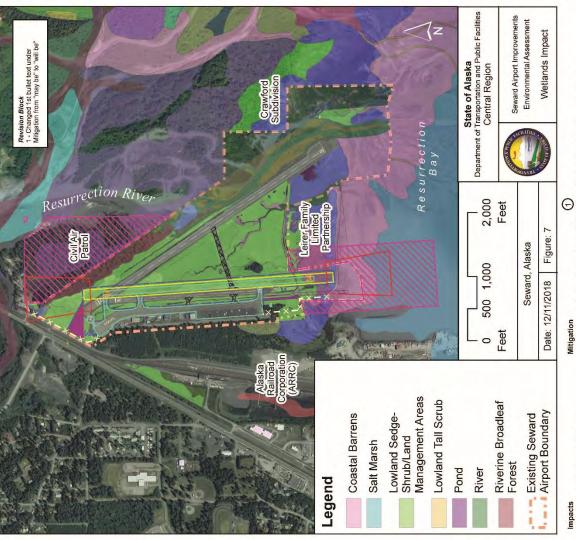
- Impacts

 The Proposed Action could impact habitat of 30 Birds of Conservation
 Concern; however, habitat is not limited in this area and birds are expected to move to other nearby locations.
 It would minorly impact Essential Fish Habitat (EFH) where instream
- work occurs.

 It could cause only minor loss to plants or wildlife, and it is not expected in impact Endangered Species Act-listed species, their habitats, or wildlife population trends.
- Mitigation
- *The Proposed Action will avoid vegetative clearing, excavation, and placement of fill on or over functional bird habitat, including the Arctic Tern nesting colony, during U.S. Fish and Wildliffe Service recommended time guidelines for southcentral Alaska.

 It will militagle impacts to EFH through Best Management Practices, including 20-foot vegetated buffers around constructed embankments that reduce sedimentation in streams.





- The Proposed Action would impact
- approximately 25 acres of wetlands.

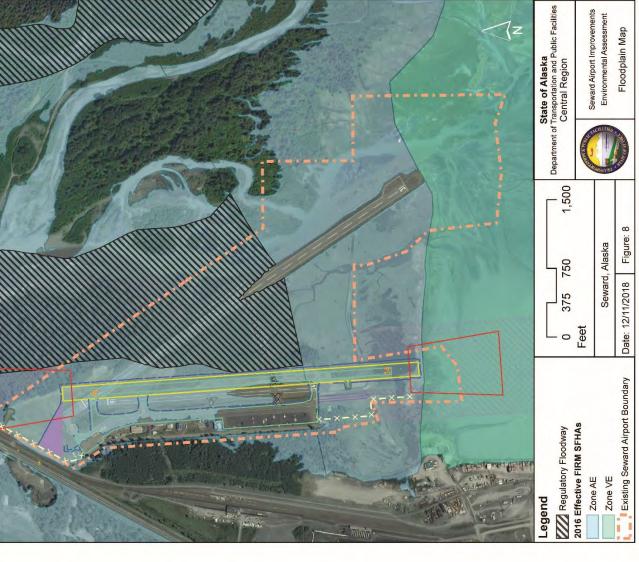
 The Proposed Action would not adversely impact substantially reduce the natural systems' ability to retain floodwater or storm water runoff. The project impacts 3.33 acres of wetlands with high functional ranking for providing wildlife habitat; no other important wildlife habitats would be impacted, and no secondary activities that ncrease impacts to airport or surrounding municipal water source protections or

wetlands would occur. The Proposed Action is

consistent with State wetland strategies.

- Subject to evaluation, the total area of fill will be minimized by steepening side slopes.
 Taxiway A removal would allow hydrologic connectivity for wetland reestablishment to return natural wetland functions to an approx. 0.9-acre area.
- Taxiway D and E removal would regrade approx. 0.3 acres to provide connectivity to an infield drainage
 ditch important for water quality protection, which could become jurisdicional wetlands.
 A wetland area of 11.2 acres would be improved through better connectivity and hydrological functions.
 Vegetated buffers would remain at least 20 feet outside constructed embarkments.
 - Material stockpiles would be located in uplands.
- Construction would require revegetation or side slope stabilization during the first growing season to
 - protect against erosion.
- Compensation for unavoidable impacts to approximately 25 acres of wetlands will be provided per
 AZCE Regulatory Guidance Letter ID No. 09-01, with a mitigation pian and compensationy mitigation.
 This may include an in-lieu lee.



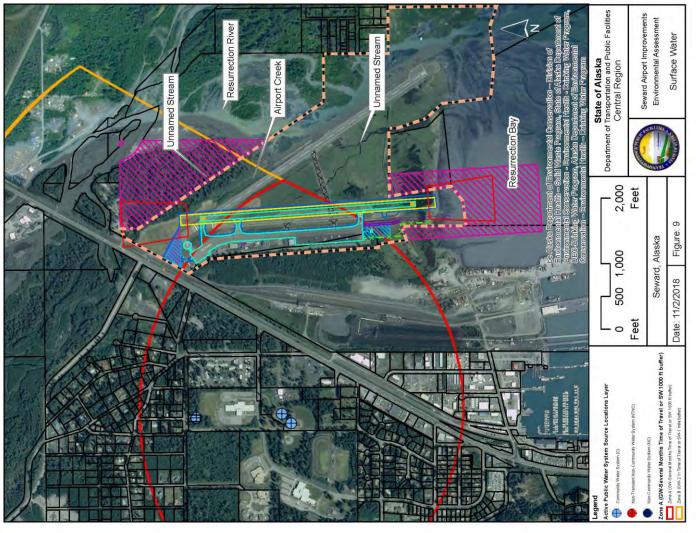


Impacts

• The proposed project would result in a Base Flood Elevation Increase between 0.01 and 0.41 feet. The majority of increase is less than 0.10 feet (12 inches). The project does not propose development within the regulatory floodway.

Mitigation
• Runway 13-31 will be allowed to overtop and eventually breach. This will
eventually breach and the original floodplain. Riprap will be installed to protect the
new runway.







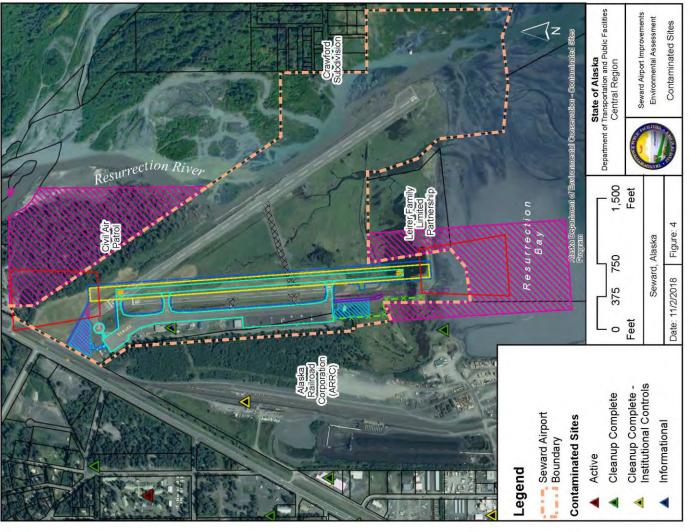


Oraft Environmental Assessmen Alternatives Comparison

Social and Cultural Issues

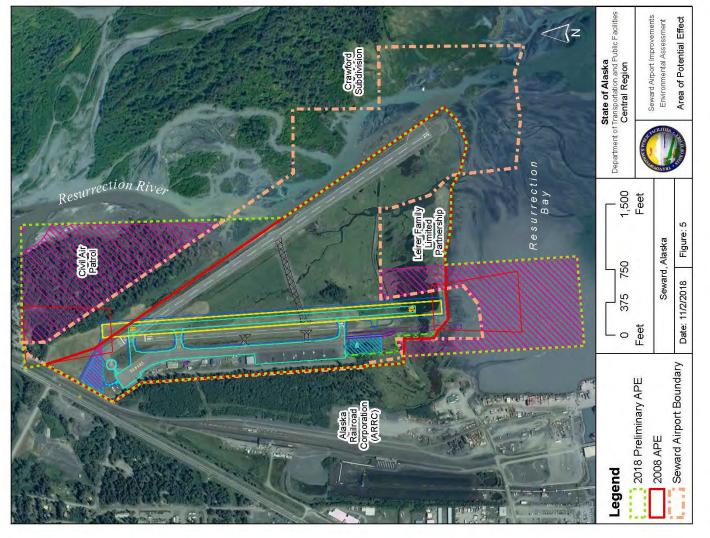
- Hazardous Materials, Solid Waste, & Pollution Prevention
- Historical, Architectural, Archaeological, and Cultural Resources
- Land Use
- Natural Resources and Energy Supply
- Noise and Noise-Compatible Land Use
- Socioeconomics
- Environmental Justice
- Children's Health and Safety Risks







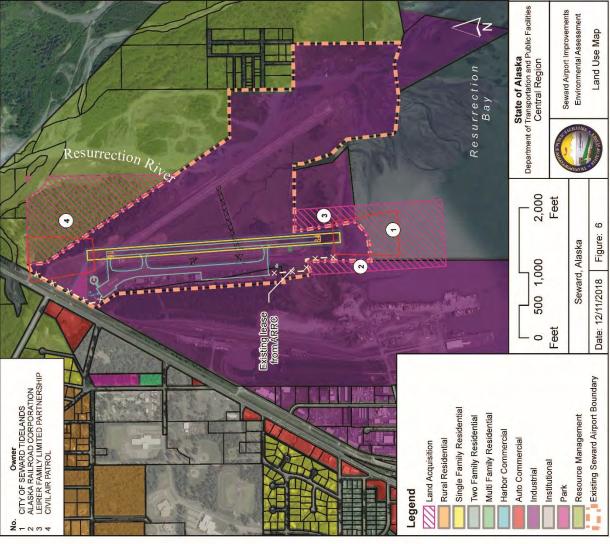








5



- Impacts

 The Proposed Action is consistent with local zoning codes.

 Noise impacts on adjacent land uses are not expected to change from current conditions.
- Separation distances from the nearest sewage lagoon will continue to meet the 10,000-foot separation guidelines.
 The landfill will remain approximately 7,800 feet northwest of the airport.
 The Proposed Action will increase safety by deterring bird watchers from crossing.

active air operations.

- Nitigation

 No minimization or mitigation requirements have been identified for the Proposed Action.

 No major changes in compatible land use are anticipated.



Cumulative Impacts

The proposed project could cumulatively impact the following resource categories at the head of Resurrection Bay area:

- Biological Resources (fish, EFH, bird habitat, invasive species)
- Hazardous Materials, Solid Waste, & Pollution Prevention (solid and construction
- Land Use (land development)
- Natural Resources & Energy Supply (utilities and natural resources)
- Water Resources (Waters of the U.S. and the Resurrection River floodplain)

The cumulative impact of the direct and indirect effects of the Proposed Action, when added to the aggregate effects of past, present, and reasonably foreseeable future actions, are not anticipated to cause significant impacts.





Royce Conlon, PDC Engineers



Schedule & Process



Project Scoping

Environmental At least 2+ years

Document Approval

NEPA Scoping

Permitting

We are here

Right of Way Acquisition Up to 2 years

Preliminary

Plans In Hand Local 35%

%59

Review PS&E 95%

Airport Design

Final PS&E 100%

Constructior

construction funding availability 2019 or 2020 depending on

We are here

Public Involvement

This schedule is dependent upon a number of variables and is subject to change.



Project Activities & Next Steps

- Finalize EA
- Obtain environmental permits
- 100% Design
- Construction 2019 or 2020 depending on funding availability





Questions and Discussion

Robin Reich, Solstice Alaska Consulting

Project Website:

www.dot.state.ak.us/creg/sewardairport

Thank you for participating!

Post-December 2018 Meeting Errata

Environmental Assessment December 2018 Errata

Seward Airport Improvements Final Environmental Assessment Errata Sheet

Summary of Changes

The Department of Transportation and Public Facilities in association with the Federal Aviation Administration completed an Environmental Assessment (EA) for improvements to the Seward Airport in November of 2018. This document was made available to the public via the Department's website and hard copies available at the Seward Community Library.

Since the EA was made available for public review, design for the Seward Airport Improvements has moved forward. This has resulted in some changes to the project design which have been incorporated into the EA figures. Other items within the document have been added or changed for clarification. This Errata is being distributed to provide public opportunity to review and comment on the changes. The public review and comment period is open until January 9, 2019. The following is a list of substantive changes.

- Figure 2. Proposed Action (see attached)
 - o 1) Fencing added to north airport boundary,
 - o 2) staging area removed,
 - o 3) clearing & grubbing boundaries added, and
 - o 4) beacon deleted, this will be completed under a separate project.
- Page 6, Section 3.3 (see below) language modified
- Page 9, Table 1, Cumulative Impacts (see below) change language to match Table 20
- Figures 3-9. updated to reflect changes in Figure 2.

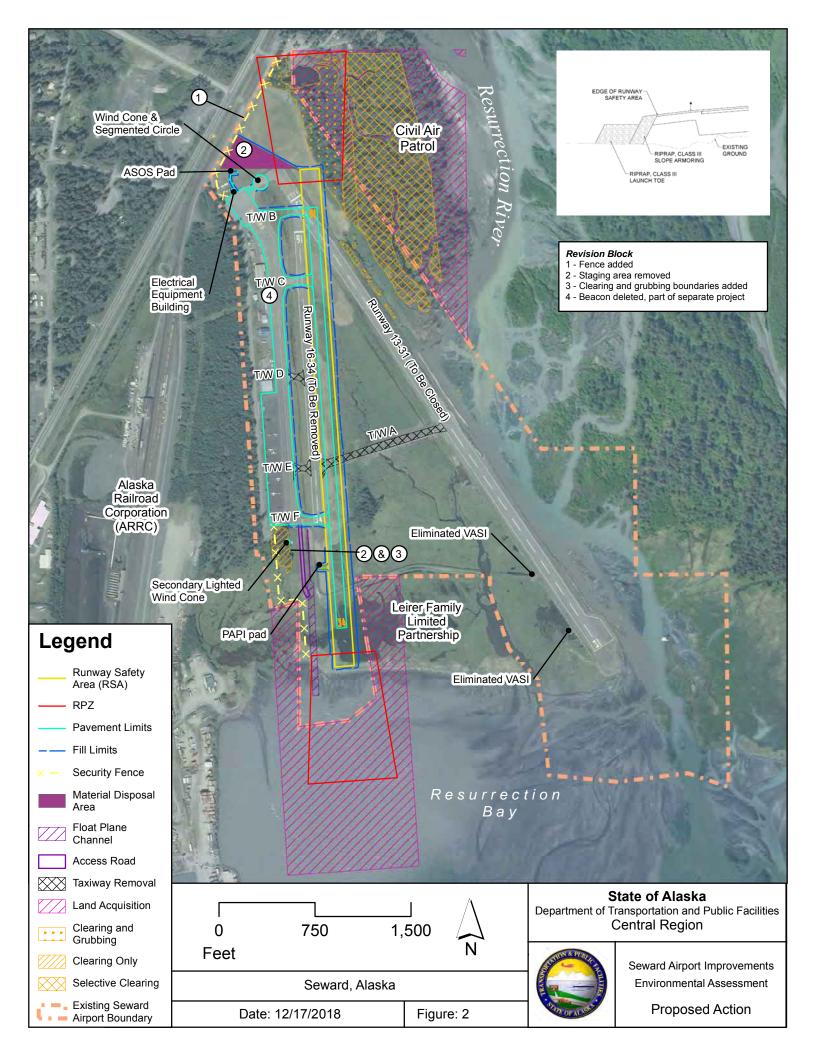
3.3 Proposed Action - Alternative 2.2

Alternative 2.2 (shown on Figure 2) will reconstruct RW 16-34 to B-II standards and then close and discontinue maintenance of RW 13-31. Closing RW 13-31 would include removing pavement, lighting, and NAVAIDS. Alternative 2.2 would shift RW 16-34 to the east (to meet B-II offset requirements) and raise it above the 100-year flood level with 2 ft of freeboard as well as extend the length from the existing 2,289 ft to 3,300 ft. Shifting the RW also minimizes changes to the apron and adjoining lease area/buildings. Armor would be installed to protect RW 16-34. Since RW 13-31 will likely be overtopped and could subsequently be breached, flood water will reach this embankment. TW B would be relocated, and TW F would be reconstructed to match RW 16-34 location and grade changes. TWs A, D, and E would be eliminated in accordance with new FAA guidance. Other components of the Proposed Action include:

- + Repave taxiways and apron other airport surfaces as needed
- + Install new airfield lighting and an electrical enclosure building
- Relocate, repair, or replace navigational aids, and markings
- Install security fencing
- Property acquisitions
- Construct a float plane channel and access road to accommodate float plane floats to wheel change-outs
- Decommission and remove existing Visual Approach Slope Indicator (VASI) on RW 13-31 and provide equivalent Precision Approach Path Indicator (PAPI) service for the south end of the new runway.
- Relocate the Automated Surface Observation System (ASOS) and the airport beacon to meet siting requirements for the new runway.
- Dispose of material within airport boundaries
- + Selectively clear and grub vegetation

Page 6

	Proposed Action	No Action
Cumulative Impacts	The proposed project could cumulatively impact the following resource categories at the head of Resurrection Bay area: Biological Resources (fish, EFH, bird habitat, invasive species) Hazardous Materials, Solid Waste, & Pollution Prevention (solid and construction waste) Land Use (land development) Natural Resources & Energy Supply (utilities and natural resources) Water Resources (Waters of the U.S. and the Resurrection River floodplain) Cumulative impacts resulting from past, present, and reasonably foreseeable future actions that include commercial and industrial activities and the proposed project at the head of Resurrection Bay are not expected to be cumulatively significant. The cumulative impact of the direct and indirect effects of the Proposed Action and its alternatives when added to the aggregate effects of past, present, and reasonably foreseeable future actions are not anticipated to cause significant impacts.	The No Action Alternative would not result in a change from current conditions. Cumulative impacts resulting from past, present, and reasonably foreseeable future actions that include commercial and industrial activities at the head of Resurrection Bay would continue.



Errata Website Location



You are here: <u>DOT&PF</u> > <u>Central Region</u> > <u>Projects</u> > <u>Seward Airport Improvements</u> > Document Library

Seward Airport Improvement Project Document Library

Important project reports are available to the public in the project "Document Library," below.

Document Name		Upload Date
 Notice of Opportunity for a Public Meeting of Draft Environmental Assessment 100k 		November 2018
Draft Environmental Assessment 39MB		November
 Chapters - Draft Environmental Asset 	essment 洚 5MB	2018
 Appendix A - Draft Environmental As 	ssessment 🌽 31MB	
<u>P1-40</u> 3MB <u>, P41-80</u> 13MB, <u>P81-120</u> 12MB,		
<u>P121-160</u> 5MB, <u>P161-200</u> 2MB, <u>P201-223</u> 3N	ИВ	
 Appendix B.C.D.E - Draft Environme 	<u>ental Assessment</u> 🏂 5MB	
 Errata Sheet - Draft Environmental A 	Assessment 1 1 MB	
Position Paper: Seward Airport Improvement Alternative	ents Selection of the Design	October 2017
THE THAT I'VE		
 Seward Airport Improvements Scoping Re 	port	September
 Cover and Table of Contents №1.3 м 	В	2017
 Report: Chapters 1 – 6 № в мв 		
 Appendix A – Forecast and facility R 	<u>equirements</u> 綘 1.8 мв	
 Appendix B − Alternatives №4.5 MB 		
 Appendix C1 – Public Meeting 12-2. 	8 MB	
 Appendix C1— Public Meeting 2: Mat 		
 Appendix C1– Public Meeting 2: Sur 		
 Appendix C1– Public Comments 		
Appendix C2 – Stakeholder Working MB		
 Appendix C2 – Stakeholder Working MB 	Group Meeting 1: Materials 🏄	
 <u>Appendix C2 – Stakeholder Working</u> MB 	Group Meeting 2: Materials 36.5	
 <u>Appendix C2 – Stakeholder Working</u> MB 	Group Meeting 2: Summary 2.5.8	
 <u>Appendix C2 – Stakeholder Working</u> MB 	Group Meeting 3: Materials 18.2	
 Appendix C2 – Stakeholder Working 3 MB 	Group Meeting 3: Presentation	
 Appendix C2 – Stakeholder Working MB 	Group Meeting 3: Summary 1/2-9.8	
 Appendix C2 – Stakeholder Working 	Group Comments 1/2-8,5 MB	
Complete Report ≯87 MB		
Final Resurrection River Excavation Memory		July 2016



Seward Airport Improvement Project (#54857)

Project Information

- <u>Introduction</u>
- Project Purpose
- Photos
- Project Schedule & Team
- Current Events
- Document Library
- Project FAQs
- Contact Us

Join our Project Email List email address Join

Regional Links

- Central Region
- Central Region Projects
- DOT&PF Project Information

Email Announcement and Distribution List

From: Solstice AK

Sent: Friday, December 21, 2018 10:53 AM

To: Solstice AK

Cc: 'barbara.beaton@alaska.gov'; 'EricaBetts@pdceng.com'; 'Olivia Cohn';

'RoyceConlon@pdceng.com'; 'travis.dennison@alaska.gov'; Robin Reich

Subject: Seward Airport Improvements Project Environmental Assessment Errata

Seward Airport Improvements Project Environmental Assessment (EA) Errata:

An Errata documenting design changes to the November 2018 Seward Airport Improvements Project EA is attached and has been posted to the Project website.

It may be downloaded online by visiting http://dot.alaska.gov/creg/sewardairport/documents.shtml and clicking on "Errata Sheet – Draft Environmental Assessment" under the Draft Environmental Assessment header.

Please note that the public review and comment period has been extended until January 9, 2019.

Please direct your comments regarding the Seward Airport Improvements Project EA to:

Robin Reich, Public Involvement Coordinator Solstice Alaska Consulting, Inc. solsticeak@solsticeak.com

2607 Fairbanks Street, Ste. B Anchorage, AK 99503

Thank you.

Seward Airport Improvements Project Environmental Assessment Errata

December 21, 2018 Email Recipients

```
BCC: 'alaskaba@live.com'; 'bca.alaska@gmail.com'; 'william.ashton@alaska.gov'; 'sarah.s.aslam@gmail.com';
'eathey@cityofseward.net'; 'datwood@cityofseward.net'; 'jamie.lynn.auletta@gmail.com';
'Akbaclaan84@gmail.com'; 'greg.balogh@noaa.gov'; 'barbara.beaton@alaska.gov';
'warsheledhawk@hotmail.com'; 'bencardinol@arr.com'; 'mbest@borough.kenai.ak.us';
'EricaBetts@pdceng.com'; 'joselyn.biloon@alaska.gov'; 'oha.revcomp@alaska.gov';
'brian.blossom@alaska.gov'; 'jbridges@cityofseward.net'; 'jamie.brooks@alaska.gov';
'trailrider@hotmail.com'; 'lucas.byker@alaska.gov'; 'rcasagranda@cityofseward.net';
'Representative.Mike.Chenault@akleg.gov'; 'Stuclark@seward.net'; 'tclemons@cityofseward.net';
'director@seward.net'; 'Olivia Cohn' <olivia@solsticeak.com>; 'RoyceConlon@pdceng.com';
'Douglass_cooper@fws.gov'; 'info@alaskadogsled.com'; 'alicia.corrigan49@gmail.com'; 'wacor@arctic.net';
'walter.corrigan@gmail.com'; 'tammy.davis@alaska.gov'; 'tdearlove@kpb.us'; 'Softballg906@hotmail.com';
'alex@alaskanewspapers.com'; 'travis.dennison@alaska.gov'; 'tjbluebird@yahoo.com'; 'wilnbev@ak.net';
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'carl.high@alaska.gov'; 'richardhocking@ak.net'; 'jhorn@cityofseward.net'; 'jhunt@cityofseward.net';
'mikei@ak.net'; 'girdwoodcowdog@yahoo.com'; 'paul.janke@alaska.gov'; 'ej23345@gmail.com';
'mkeil@cityofseward.net'; 'Leah_kenney@fws.gov'; 'clerk@cityofseward.net'; 'kevin.knotek@alaska.gov';
'kubitzj@akrr.com'; 'kelley@cityofseward.net'; 'scleirer@gci.net'; 'evelynlentz@yahoo.com';
'grant.lidren@alaska.gov'; 'LindamoodB@akrr.com'; 'Patricialinville3@gmail.com'; 'linville@ak.net';
'klyon@borough.kenai.ak.us'; 'AKD68@love.com'; 'jennifer.L.Martin@usace.army.mil';
'mccartyallen@yahoo.com'; 'smcclure@cityofseward.net'; 'seanm@lynden.com';
'Sarahm@alaskasealife.org'; 'sean.montgomery@alaska.gov'; 'laura.noland@cardno.com';
'chelleak@gmail.com'; 'anng@arctic.net'; 'jolive@gci.net'; 'olsonsteelerjs4@gmail.com';
'josenga@cityofseward.net'; 'mark.pearson@alaska.gov'; 'Tylerpelo.308@gmail.com';
'bearlakepilot@gmail.com'; 'iscream4me@gmail.com'; 'cpierce@kpb.us'; 'sbcfsa@arctic.net';
'spresley@kpb.us'; 'reaquang@yahoo.com'; 'jquick@kpb.us'; Robin Reich <robin@solsticeak.com>;
'pamela.russell@alaska.gov'; 'KenaiRivCenter@kpb.us'; 'laura@exitmarine.com'; 'doug@cityofseward.net';
'doug@cityofseward.net'; 'Representative.Paul.Seaton@akleg.gov'; 'cseese@kpb.us';
'sseese@cityofseward.net'; 'jeff.selinger@alaska.gov'; 'jimmy.smith@alaska.gov'; 'brad@seward.net';
'ssquires@gci.net'; 'dlsquires@cityofseward.net'; 'stephensd@akrr.com'; 'Senator.Gary.Stevens@akleg.gov';
's.stolle@hotmail.com'; 'terryc@akrr.com'; 'gthrall@seward.net'; 'gthrall@seward.net';
'sztowsley@cityofseward.net'; 'sadieu@alaskasealife.org'; 'susan.urig@gmail.com'; 'hzemach@gmail.com';
'info@alaskaairmen.org'; 'vernkingsford@yahoo.com'; 'kevin.knotek@alaska.gov'
CC: 'barbara.beaton@alaska.gov'; 'EricaBetts@pdceng.com'; 'Olivia Cohn' <olivia@solsticeak.com>;
```

'RoyceConlon@pdceng.com'; 'travis.dennison@alaska.gov'; Robin Reich <robin@solsticeak.com>

Federal Aviation Administration Letter to City of Seward Re: Public Hearing



Alaskan Region Airports Division

222 W. 7th Avenue, Box #14 Anchorage, Alaska 99513-7587 Tel. (907) 271-5438 Fax (907) 271-2851

Federal Aviation Administration

March 27, 2019

Mr. Norm Regis Acting City Manger PO Box 167 Seward, Alaska 99664

Dear Mr. Regis,

On January 2, 2019 in response to the National Environmental Policy Act (NEPA) public comment period for the proposed Seward Airport project the City of Seward requested a public hearing be held for the proposed project. The City's request was received one week before the January 9, 2019 end of the public comment period.

During my review of the request I misinterpreted whether the City's request for the hearing had been submitted within or outside the public comment period. For that reason and limitations of the Federal Aviation Administration's (FAA) grant authorities in relation to the proposed project the hearing request was denied.

FAA has determined that the hearing can go forward when it meets the City of Seward and Alaska Department of Transportations (ADOT) schedules.

The ADOT will schedule the hearing.

If you need any further information please contact me at: Keith.gordon@FAA.gov or 907-271-5030.

Keith Gordon

Environmental Protection Specialist

Agency Scoping Comment

Post-Errata Distribution Comment: January 8, 2019, Heil, C., DEC

From: Heil, Cynthia L (DEC) <cindy.heil@alaska.gov>

Sent: Tuesday, January 8, 2019 12:22 PM

To: Solstice AK; Solstice AK

Cc: Beaton, Barbara J (DOT); EricaBetts@pdceng.com; Olivia Cohn;

RoyceConlon@pdceng.com; Dennison, Travis A (DOT); Robin Reich; Alimi, Adeyemi S

(DEC)

Subject: RE: Seward Airport Improvements Project Environmental Assessment Errata

Dear Robin Reich,

Thank you for the opportunity to comment. I am commenting on the Air Quality portion of your project materials. Yes, you are correct, that the project is not located within an air quality non-attainment or maintenance area, and therefore does not require a general conformity demonstration. However, particular attention should be given during construction activities to take reasonable precaution per 18 AAC 50.045(d) to prevent fugitive dust. Also, if the preferred method for disposal of any organic debris is by open burning, the project implementation team must use "reasonable procedures to minimize adverse environmental effects and limit the amount of smoke generated" as well as get any applicable permits. A complete description of the open burn guidance policy can be found at http://dec.alaska.gov/air/ap/docs/obrguide2016.pdf.

If you have any questions, please don't hesitate to contact me.

Cindy Heil Program Manager, Division of Air Quality 907-269-7579

From: Solstice AK [mailto:solsticeak@solsticeak.com]

Sent: Friday, December 21, 2018 10:53 AM

To: Solstice Consulting <solsticeak@solsticeak.com>

<olivia@solsticeak.com>; RoyceConlon@pdceng.com; Dennison, Travis A (DOT) <travis.dennison@alaska.gov>; Robin

Reich < robin@solsticeak.com>

Subject: Seward Airport Improvements Project Environmental Assessment Errata

<u>Seward Airport Improvements Project Environmental Assessment (EA) Errata:</u>

An Errata documenting design changes to the November 2018 Seward Airport Improvements Project EA is attached and has been posted to the Project website.

It may be downloaded online by visiting http://dot.alaska.gov/creg/sewardairport/documents.shtml and clicking on "Errata Sheet – Draft Environmental Assessment" under the Draft Environmental Assessment header.

Please note that the public review and comment period has been extended until January 9, 2019.

Please direct your comments regarding the Seward Airport Improvements Project EA to:

Robin Reich, Public Involvement Coordinator

Memorandum Regarding the 08/08/19 Public Hearing Documentation

MEMORANDUM

Date: October 25, 2019

To: File

From: Robin Reich and Olivia Cohn (Solstice Alaska Consulting, Inc.) with input and

review from Royce Conlon and Erica Betts (PDC Engineering)

Subject: Summary of the Seward Airport Improvements Project (#Z548570000)

08/15/19 Public Hearing Regarding the Draft Environmental Assessment (EA)

Introduction

In August 2019, the Alaska Department of Transportation & Public Facilities (DOT&PF) held a Seward Airport Improvements Project public hearing to respond the request for a public hearing and to provide an opportunity for the public to provide recorded testimony on the Draft EA. The Draft EA was published for public review in November 2018, a public open house was held in December 2018, and a public hearing was requested following the open house. The hearing's purpose was to provide an opportunity for the public to provide recorded testimony to a court reporter and to provide information regarding the Draft EA.

This memorandum provides a summary and documentation of the hearing, outreach efforts, and comments received during this time.

Outreach

Public hearing notification was provided to the public, local community, project stakeholders, and agencies through the following methods.

- An announcement was published in the current events and document library sections of the project website http://dot.alaska.gov/creg/sewardairport/> before July 8, 2019.
- A notice was published on the State of Alaska Online Public Notices site
 https://aws.state.ak.us/OnlinePublicNotices/Notices/View.aspx?id=194812> on July 9, 2019.
- Seward Journal newspaper advertisements were published on July 10 and 31, 2019. (An opinion editorial was also published in the July 31, 2019 Seward Journal.)
- A mailer was postmarked after July 31, 2019 and was delivered to 214 recipients.
- Email announcements were sent to the project mailing list on August 2 to 131 recipients and on August 14, 2019 to 150 recipients. (An announcement was also included in the July 17, 2019 What's Up email newsletter.)

Outreach documentation is provided in the attachments.

Public Hearing

The hearing was held on August 15, 2019, from 5:00 p.m. to 7:30 p.m. at the K.M. Rae Marine Education Building located at 125 Third Avenue in Seward. This format enabled the public to participate by signing in, reviewing project team-staffed displays, and providing recorded verbal testimony to a court reporter, if they chose to do so. The displays were similar to the Draft EA information that was presented at the December 2018 public meeting. Station displays detailed the project schedule, process, alternatives, and Draft EA and Proposed Action, and included a separate verbal testimony station. A handout was provided that documented and responded to frequently asked questions (FAQs) that had arisen since the December 2018 meeting.

At least 59 people attended the hearing and signed in. Project team representatives at the hearing included DOT&PF, Federal Aviation Administration (FAA), PDC, and Solstice Alaska. Upon arrival, attendees were offered an open house station overview describing the hearing and the FAQ document, and were encouraged to provide public testimony to the court reporter and submit written comment.

During the hearing, the public requested the meeting move into the auditorium where the court reporter was stationed and the project team provide a panel or presentation to hear comments. The FAA and DOT&PF complied and notes were taken during that discussion.

During the public hearing, twenty-two people provided recorded testimony, and seven comments were written. Hearing documentation (sign-ins, handouts, displays, auditorium discussion notes, recorded testimonies, and written comments) is provided in the attachments.

Comments and Feedback

Sixteen comments were received via email, telephone, and letter before and after the hearing from August 3-27, 2019.

A summary of comments received during the Draft EA phase of this project (from December 2018 through August 2019) was prepared, and comments were organized by sub-topic with responses. This document, "Responses to Public Comments Received During Public Review of the Draft Environmental Assessment (EA)," summarizes public comments received from December 2018 (following publication of the Draft EA in November 2018) through August 2019 (following the August 2019 public hearing). This document was created for later distribution.

Comments related to the following topics.

- Acquire Airport
- Support Alternative 1.1
- Support Alternative 2.2
- Support Other Alternatives (Alternative 3.0, 4,000-ft Runway, New Alternative)
- Climate Change
- Cultural and Historic Resources
- Design (General; Runway Length Requirements, Demand, and Aircraft Use; Existing Long Runway; Fence; Float Channel; Longer Runway; Wind)
- Decisions/Involvement
 Process/Comment Schedule
- Dredging

- Economics/Future Development
- Environmental Document
- General Comments
- Hazardous Waste
- Hydrology, Flooding, and Erosion
- Local and Historical Knowledge
- Maintenance
- Noise Impacts
- Purpose/Need
- Recreation
- Safety/Emergency Response
- Stormwater
- Wetland Impacts
- Wildlife, Fish, Bird Impacts

Comments submitted before and after the hearing and the comment-response document and its distribution are provided in the attachments.¹

Attachments

Outreach and Advertising Hearing Documentation, Comments, and Feedback Pre- and Post-Hearing Comments

¹The 12 comments received between December 2018 and February 2019, that are included in the comment-response document, are provided in the December 12, 2018 open house memorandum.

August 2019 Outreach and Advertising

Project Website Announcement (Document Library and Current Events)

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You are here: <u>DOT&PF</u> > <u>Central Region</u> > <u>Projects</u> > <u>Seward Airport Improvements</u> > Current Events

Seward Airport Improvement Project Current Events

PROJECT UPDATE:

Public Hearing. A public hearing is scheduled for August 15, 2019, from 5:00 PM to 7:30 PM, at the K.M. Rae Marine Education Building, 125 Third Avenue, Seward Alaska. The hearing's purpose is to address the proposed actions, potential economic, social, and environmental impacts, and the project's consistency with the goals and objectives of the affected area's land use or planning strategy. The comment period is open until August 25, 2019. During this timeframe DOT&PF will accept comments on the Draft EA and Proposed Action. More information on the public hearing is available in the <u>Document Library</u>.

Public Meeting. A public meeting is scheduled for December 12, 2018, from 5:00 PM to 7:30 PM, at the K.M. Rae Marine Education Building located at 125 Third Avenue, Seward, Alaska. More information on the meeting is available in the <u>Document Library</u>.

Draft Environmental Document Now Online. The Draft Environmental Assessment is now available in the <u>Document Library</u>.

Phase I. Alternative Selected, Project Scoping Complete, and Scoping Report Now Online DOT&PF has completed the project scoping phase. The Seward Airport Improvements Scoping Report, summarizing the project background (scope, project history, purpose and need, project team); existing conditions; aviation activity and forecast; facility requirements; project alternatives; and environmental conditions is now available in the Document Library.

Alternative 2.2 has been selected as the preferred alternative for this project. A position paper summarizing selection this alternative is now available in the <u>Document Library</u>.

DOT&PF has started Phase II. Environmental Documentation. PDC Inc. Engineers in conjunction with DOT&PF is preparing the Environmental Assessment for the project. Please check back here for updates coming soon.



Seward Airport Improvement Project (#54857)

Project Information

- Introduction
- Project Purpose
- Photos
- Project Schedule & Team
- Current Events
- Document Library
- Project FAQs
- Contact Us

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email address

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Regional Links

- Central Region
- Central Region Projects
- DOT&PF Project Information



You are here: $\underline{\text{DOT\&PF}} > \underline{\text{Central Region}} > \underline{\text{Projects}} > \underline{\text{Seward Airport Improvements}} > \underline{\text{Document Library}}$

Seward Airport Improvement Project Document Library

Important project reports are available to the public in the project "Document Library," below.

Document Name	Upload Date
Notice of Public Hearing for the Seward Airport Improvements Project Draft Environmental Assessment and Proposed Action - August 15, 2019	July 2019
Notice of Opportunity for a Public Meeting and Notice of Availability of Draft Environmental Assessment	November 2018
Draft Environmental Assessment 39MB Chapters - Draft Environmental Assessment 5MB Appendix A - Draft Environmental Assessment 31MB P1-40 3MB, P41-80 13MB, P81-120 12MB, P121-160 5MB, P161-200 2MB, P201-223 3MB Appendix B,C,D,E - Draft Environmental Assessment 5MB Errata Sheet - Draft Environmental Assessment 1MB	November 2018
Position Paper: Seward Airport Improvements Selection of the Design Alternative 5 MB	October 2017
Seward Airport Improvements Scoping Report Cover and Table of Contents 1.3 MB Report: Chapters 1 – 6 8 MB Appendix A – Forecast and facility Requirements 1.8 MB Appendix B – Alternatives 4.5 MB Appendix C1 – Public Meeting 1 2.8 MB Appendix C1 – Public Meeting 2: Materials 6 MB Appendix C1 – Public Meeting 2: Summary 8.2 MB Appendix C1 – Public Comments 5 MB Appendix C2 – Stakeholder Working Group Meeting 1: Invitation 7 MB Appendix C2 – Stakeholder Working Group Meeting 1: Materials 4 MB Appendix C2 – Stakeholder Working Group Meeting 2: Summary 5.8 MB Appendix C2 – Stakeholder Working Group Meeting 2: Summary 5.8 MB Appendix C2 – Stakeholder Working Group Meeting 3: Materials 8.2 MB Appendix C2 – Stakeholder Working Group Meeting 3: Presentation 3 MB Appendix C2 – Stakeholder Working Group Meeting 3: Summary 9.8 MB Appendix C2 – Stakeholder Working Group Meeting 3: Summary 9.8 MB Appendix C2 – Stakeholder Working Group Comments 8.5 MB Complete Report 87 MB	September 2017
Final Resurrection River Excavation Memo 1 MB	July 2016
April 20, 2016 Public Meeting Materials Station 1: Introductory Materials 2.7 MB Station 2: Understanding the Challenges 2.3 MB Station 3: Understanding the Possible Solutions 7.7 MB Station 4: Comment Sheet	April 2016

Aviation Activity & Facility Requirements Technical Memorandum

Draft Alternatives Technical Memorandum 3 мв



Seward Airport Improvement Project (#54857)

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- DOT&PF Project Information

Notice of Public Hearing for the Seward Airport Improvements Project Draft Environmental Assessment and Proposed Action

Seward, Alaska

Seward Airport Improvements Project No. Z548570000

Alaska Department of Transportation & Public Facilities (DOT&PF) – Central Region Aviation Design Section

U.S. Department of Transportation-Federal Aviation Administration (FAA) – Alaskan Region

The DOT&PF, in association with the FAA, is proposing to improve the airport in Seward, Alaska through the Seward Airport Improvements Project.

In accordance with the National Environmental Policy Act of 1969 and Council of Environmental Quality (CEQ) regulations, the DOT&PF drafted an Environmental Assessment (EA) for the project. The DOT&PF documented its Proposed Action to close Runway 13-31 and upgrade Runway 16-34 by relocating/reconstructing it, raising it above the 100-year flood level, and extending it to 3,300 feet long in the Draft EA. The project website can be found at: www.dot.state.ak.us/creg/sewardairport.

The Draft EA was published for public review in November 2018. The proposed Draft EA and Proposed Action therein remain available for public review and comment at the following electronic and physical locations:

The Draft EA can be reviewed at: http://www.dot.state.ak.us/creg/sewardairport/documents.shtml.

Hard copies can be found at:

- Seward Community Library & Museum located at 239 6th Avenue, Seward
- DOT&PF Central Region Office located at 4111 Aviation Avenue, Anchorage

A public hearing will be held regarding public comments on the Draft EA and Proposed Action. The hearing's purpose is to address the proposed actions, potential economic, social, and environmental impacts, and the project's consistency with the goals and objectives of the affected area's land use or planning strategy. This comment period is open until August 25, 2019. During this timeframe, the DOT&PF will accept comments on the Draft EA and Proposed Action. Comments can be submitted as described below or via testimony at the Public Hearing.

Public Hearing Date: Thursday, August 15, 2019

Time: 5:00 – 7:30 PM

Location: K.M. Rae Marine Education Building, 125 Third Avenue, Seward, Alaska

In part this proposed project will comply with Section 106 of the National Historic Preservation Act; Executive Orders: 11990 (Wetlands Protection), 11988 (Floodplain Protection), 12898 (Environmental Justice), 11593 (Historic Preservation), 13084 (Consultation and coordination with Indian Tribal Governments), the Clean Air Act, Clean Water Act, Fish and Wildlife Coordination Act, and U.S. DOT Act Section 4(f).

Written comments: submit comments to Brian Elliott, Environmental Manager, DOT&PF, Preliminary Design & Environmental, P.O. Box 196900, Anchorage, AK 99519-6900. NOTE: comments submitted via the USPS must be postmarked no later than midnight August 25, 2019.

E-mail: submit comments to Brian.Elliott@alaska.gov. NOTE: comments submitted electronically must be electronically received no later than midnight August 25, 2019. Please include "Seward Airport Improvements comment" in the subject line.

Commenters may use any single method or any combination of the above methods to comment.

The DOT&PF operates federal programs without regard to race, religion, color, national origin, gender, age, marital status, or disability. Full Title VI Nondiscrimination Policy: dot.alaska.gov/tvi_statement.shtml. To file a complaint, go to: dot.alaska.gov/cvlrts/titlevi.shtml.

The DOT&PF complies with Title II of the Americans with Disabilities Act of 1990. Individuals with disabilities who may need auxiliary aids, services, and/or special modifications to participate in this project should contact Barbara Beaton, P.E., Project Manager, at 269-0617 to make necessary arrangements. Individuals with a hearing impairment can contact Relay Alaska at 711 or 800-770-8973 for assistance.

State Online Notice

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Notice of Public Hearing for the Seward Airport Improvements Project Draft Environmental Assessment and Proposed Action

The Alaska Department of Transportation & Public Facilities (DOT&PF) – Central Region Aviation Design Section, in association with the U.S. Department of Transportation-Federal Aviation Administration (FAA) – Alaskan Region, is proposing to improve the airport in Seward, Alaska through the Seward Airport Improvements Project.

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A public hearing will be held regarding public comments on the Draft EA and Proposed Action.

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Written comments: submit comments to Brian Elliott, Environmental Manager, DOT&PF, Preliminary Design & Environmental, P.O. Box 196900, Anchorage, AK 99519-6900 or Robin Reich, Public Involvement Coordinator, Solstice Alaska Consulting, 2607 Fairbanks Street, Suite B, Anchorage, AK 99503. NOTE: comments submitted via the USPS must be postmarked no later than midnight August 25, 2019.

E-mail: submit comments to Brian.Elliott@alaska.gov. NOTE: comments submitted electronically must be electronically received no later than midnight August 25, 2019. Please include "Seward Airport Improvements comment" in the subject line.

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Attachments, History, Details

Attachments

None

Revision History

Created 7/9/2019 1:52:57 PM by mlbyrd Modified 7/9/2019 1:55:42 PM by mlbyrd

Details

Department: Transportation and Public

Facilities

Category: Public Notices

Sub-Category:

Location(s): Central Region, Seward Project/Regulation #: Project No. Z548570000

Publish Date: 7/9/2019 Archive Date: 9/1/2019

Events/Deadlines:

Newspaper Advertisements and Affidavits of Publication

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Notice of Public Hearing for the Seward Airport Improvements Project Draft Environmental Assessment and Proposed Action Seward, Alaska

Project: Seward Airport Improvements Project

Project No.: **Z548570000**

Alaska Department of Transportation & Public Facilities (DOT&PF) – Central Region Aviation Design Section

U.S. Department of Transportation-Federal Aviation Administration (FAA) – Alaskan Region

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Public Safety Report

The Public Safety Report is compiled from numerous sources; both optical and unofficial, p.m. from hear the Harborside campgrounds. A 911 misdial was received on June 29 at 610 p.m. from near Fourth Avenue and Ballaine Boulevard.

Traffic Concerns and Citations

A verbal warning was issued on June 30 at 1:28 a.m. near Third Avenue and Van Buren Street for driving with

headlights off after dark.

A verbal warning was issued on June 30 at 11:19 a.m. near Third Avenue and South Harbor for speed.

Avenue and South Harbor for speed.
A verbal warning was issued on
June 30 at 3-88 p.m. near Mile 2.5
Seward for speed.
Logan Phipps was issued citations
on June 30 at 10:15 p.m. near Seward
Highway and South Harbor Street for
expired registration, expired license
less than one year, and fullure to
provide proof of insurance. A verbal

warning was also given for speed.

Medical Calls

An ambulance was requested to Sateway on June 30 at 4:47 p.m. An ambulance was dispatched to C

Street and Second Avenue on June 30 at 9:01 p.m.

An ambulance was dispatched to Seward Highway and Nash Road on June 30 at 9:15 p.m.

911 Misdial

Multiple 911 open lines received from the barbor area on June 30 at 11 a.m. Contact was made with the callers who advised all was okay.
A 911 open line was received on June 30 at 6:04 p.m. from Swetmann Drive and Bear Drive.

Miscellaneous

Miscellaneous
On June 30 at 6.05 a.m. Troopers
requested an officer and an ambulance
for a report of two males who were
bloody after a fight. The ambulance
was canceled, and troopers arrested
Gregory Kisor for Assaul IV
Domestic Violence.
On June 30 at 4:38 p.m. Safeway
advised of an intoxicated, incoherent
female, citius is not of the parking.

advised of an intoxicated, incoherent female sitting in one of the parking lot spots. An officer requested medics to check on the subject. Officer contacted multiple liquor stores trying to find out where the subjects obtained alcohol.

Alaska Regional Forester **Announces new Forest** Supervisor for Chugach **National Forest**

welcomes Jeff Schramm as the new forest supervisor for the Chugach National Forest. As forest supervisor, Schramm will oversee the management of more than 5.4 million acres of National Forest System lands in southcentral Alaska that are a vital part of the cities and towns of Anchorage and surrounding Prince William Sound.

'Mr. Jeff Schramm has more than 28 years of Forest Service experience specializing in natural resources, recreation and forest planning that make him an excellent choice for this job," Schmid said. "His time spent as a District Ranger and Forest Supervisor working on forest planning and managing recreation makes him especially well-suited for the Chugach National Forest and I am very pleased he is bringing his wide experience to this new role."

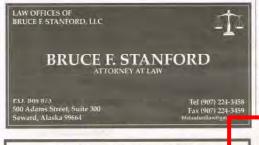
Schramm graduated from the Utah State University with a Bachelor's Degree in Forest Management. He worked as the district ranger on the Ashley and the Uinta-Wasatch-Cache National Forests in Utah and most recently served as the Forest Supervisor of the

Alaska Regional Forester Dave Schmid instrumental in advancing the revision of the forest plan.

Continued on pg. 10

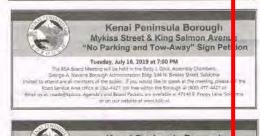


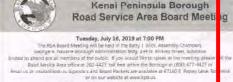
Showtimes are 9 p.m. uniess otherwise stated.



Help us keep the community informed Your source for all of Seward's events!

Email events and announcement to news@sewardjournal.com







Notice of Public Hearing for the Seward Airport Improvement Project Draft Environmental Assessment and Proposed Action

Project: Seward Airport Improvement Project

Alaska Department of Transportation & Public Facilities (DOT&PF) - Central Region Aviation Design Section

U.S. Department of Transportation-Federal Aviation Administration (FAA) – Alaskan Region

Subject: Seward Airport Improvements Project - Draft Environmental Assessment and Proposed Action

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Auport improvements Project.

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Seward, Alaska During this timeframe, the DOT&PF will accept comments on the Draft EA and Proposed Action. Comments can be submitted as described below or via testimony at the Public Hearing.

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Domestic Violence/ Sexual Assault Crisis Line Available 24 hours/7 days

(907) 362-1843



Substance Abuse/ Behavioral Health Crisis Line

Available 24 hours/7 days

(907) 224-3027

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by North Star Management

5

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CITY OF SEWARD, ALASKA Public Notice - Invitation for Bids Seward 2017 Storm Surge Damage Repairs

The City of Seward is seeking sealed bids and for construction of the CITY OF SEWARD – SEWARD 2017 STORM SURGE DAMAGE REPAIRS. WORK generally consists of repairing damage caused by a 2017 Storm Surge and restoring the areas to pre-storm conditions. WORK includes reclamation and reinstallation of displaced armor rock, installation of new armor rock, excavation, placement of filter rock, placement and grading of D-1 surfacing material, and placement of concrete fill for foundation support. The estimated contract value range is \$2,000,000 to \$4,000,000

Sealed bids will be received at the City Clerk, P.O. Box 167, Seward, Alaska 99664, physically located at 410 Adam Street, Seward, Alaska until 3:00 p.m. prevailing time on August 22, 2019 at which time the Bids will be publicly opened and read aloud in the City Council Chambers. mark on the outside of the envelope "Sealed bids for Seward 2017 Storm Surge Damage Repairs, Opening Date August 22, 2019" Proposals may not be withdrawn for thirty days following date of opening. The City of Seward is not responsible for any undelivered mail.

The Contract Documents will be available for download beginning August 1st for no charge from the City of Seward's website at www. cityofseward.us. Hard copies of the Contract Documents will be available at the Department of Public Works Office for a fee of \$25.00. Receipt of the bid documents requires registration with PND Engineers, Inc at (907) 561-1011 or pkendall@pndengineers.com in order to be placed on the Plan Holders List and to ensure notification of Addendum.

The contract shall be let by the Seward City Council to the lowes qualified responsive and responsible bidder. Local preference will be excluded from the bid selection process.

HELP WANTED

The Discovery Gift Shop, operated by Wildlife Trading Co. (EOE), at the Alaska SeaLife Trading Co. (EOE), at the Alaska SeaLife Center is accepting applications for PTET Seasonal Sales Supervisors and PT/ST Seasonal Sales Supervisors and PT/ST Seasonal Sales Supervisors and PT/ST Seasonal Sales Associates. We are looking for responsible, experienced people to work at our high-volume gift shop, loin us for a fast paced and emgaging summer job opportunity. Please (inquire by picking up an application at the shop or emailing a resume to Monlica at monicablewiseum.com or James at jamesbe-

YOUR CLASSIFIED AD HERE!

Contact The Seward Joseph 907-895-5139

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Contact The Seward Journal 987-895-5139



Notice of Public Hearing for the Seward Airport Improvement Project Draft Environmental Assessment and Proposed Action Seward, Alaska

Project: Seward Airport Improvement Project Project No.: Z548570000

Alaska Department of Transportation & Public Facilities (DOT&PF) - Central Region Aviation Design Section

U.S. Department of Transportation-Federal Aviation Administration (FAA) - Alaskan Region

Subject: Seward Airport Improvements Project - Draft Environmental Assessment and Proposed Action

The DOT&PF, in association with the FAA, is proposing to improve the airport in Seward, Alaska through the Seward Airport Improvements Project.

Aurport Improvements Project.

In accordance with the National Environmental Policy Act of 1969 and Council of Environmental Quality (CEQ) regulations, the DOT&EF drafted an Environmental Assessment [EA] for the project. The DOT&EF documented its Proposed Action to close Runway 13-31 and upgrade Runway 16-34 by relocating/reconstructing, raining it above the 109-year flood level, and extending it to 3,300 feet long in the Draft EA. The project website can be found at: www.dot.state.ak.us/eregise.wardsieport.

The Draft EA was published for public review in November 2018. The proposed Draft EA and Proposed Action therein remains available for public review and comment at the following electronic and physical locations:

The Draft EA can be reviewed at: http://www.dot.state.ak.us/ creg/sewardairport/documents.shtml

Hard copies can be found at:
Seward Community Library & Museum located at 239 6th Avenue, Seward
DOT&FF Central Region Office located at 4111 Aviation

Avenue, Anchorage

A public hearing will be held regarding public comments on the Draft EA and Proposed Action. The hearing's purpose is un-address the purposed action, potential economic, social and environmental impacts, and the project's consistency with the goals and objectives of the affected area's land use or planning strategy. This comment period is open until August 25, 2019.

During this timeframe, the DOT&PF will accept comments on the Draft EA and Proposed Action. Comments can be submitted as described below or via testimony at the Public Hearing.

Public Hearing Date: Thursday, August 15, 2019 Time: 5:00 - 7:30 PM Location: K.M. Rae Marine Education Building, 125 Third Avenue, Seward, Alaska

In part this proposed project will comply with Section 106 of the National Historic Preservation Act, Executive Orders: 11990 (Wedands Protection), 11988 (Floodplain Protection), 12888 (Environmental Justice), 11993 (Historic Preservation), 13084 (Consultation and coordination with Indian Tribal Governments), the Clean Air Act, Clean Water Act, Fish and Wildlife Goordination Act, and U.S. DOI Act Section 4(8).

Written comments: submit comments to Brian Ellion, Environmental Manager, DOT&FF, Freilminary Design & Environmental, P.O. Box 196900, Anchorage, AK 99519-5900. NOTE: comments submitted via the USPS must be postmarked no later than midnight August 25, 2019.

E-mail: submit comments to Brian, Elliotte diaska, gov. NOTE: comments submitted electronically must be electronically received no later than midnight August 25, 2019. Please include "Seward Airport Improvements comment" in the subject line.

Commenters may use any single method or any combination of the above methods to comment.

The DOT&PF operates federal programs without regard to race, religion, color, national origin, gender, age, marital status, or disability. Full Title V1 Nondiscrimination Policy: dot-alaska, gov/vsl-statement-shtml. To file a complaint, go to: dot-alaska, gov/cylrts/fitlevi.shtml.

The DOTAPPE complies with Title II of the Americans with Disabilities Act of 1990, Individuals with disabilities who may need auxiliary asia, services, and/or special modifications to participate in this project should confact Barbara Beaton, P.E., Project Manager, at 269-901 7 to make necessary arrangements. Individuals with a hearing impatrment can contact Relay Alaska at 711 or 800-770-8973 for assistance.

SEWARD PLANNING & ZONING COMMISSION MEETING AGENDA Tuesday, August 6, 2019 at 7:00 p.m. City Council Chambers

- CALL TO ORDER PLEDGE OF ALLEGIANCE
- OLL CALL TITZEN COMMENTS PREDVAL OF AGENDA AND CONSENT
- 4. CITIZEN COMMENTS
 A. APPRIVATION AND CONSENT
 AGENDA
 APPRIVATION AMENDA AND CONSENT
 AGENDA
 ASSENTATIONS AND
 REPORTS
 PUBLIC INCOMENTATIONS AND
 REPORTS
 A. Resolution Requiring Public Hearing
 A. Resolution, 2019-2013, Of The Planning And
 London Commission Of The City Of Seward.
 Alaska, Recommending City Council Approved
 Of the Resoluting Of the West Half Of Federal
 Addition Blocks 7, 14, And 17, Except Lot 74,
 Block 17, From Single Family Residential
 And Two Family Residential (CR) To Office
 Resolution (CR)
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 29, 30, And 31, Rick 21, O'Figural Townsite O'F

 Seward, Located At 314 And 308 Firth Avenue.

 Creating One Lot 16 to Se Known As Lot 38A.

 Seward Criginal Townside S&R Audette Replat

 Resolution 2012-015. of the Planning And

 Alakal, Recommending Sevard City Council and

 kenal Peninnial Borough Approval O'F the

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- The Schuffler Creek Destroys Bacement, Constitute One Lot To Be Known & Lot J.A. Oceanriew Subdivision Gateway Regist.
 Other New Business Berns.
 Descuss Revenbulson 2019-904 and CUP 2019-89 permitting operation of a parking for on Lots 1/4 20 Back. 10 Lambers Addition, Joseph at 1100
 2. Set togic for August 20, 2019 work season as "Discuss Accessory Develop Crists,"
 2. Approval of June 4, 2019 Regular Meeting Minutes.
- Minutes

 10. INFORMATIONAL ITEMS AND REPORTS

 A Planning and Zuning "Did You Know".

 R Commissioner Educational Information Piece

 C FEMA Region X Newsletter.

 D 2019 Planning or Zoring Meeting Schulule.

 E City Calendari.
- L. COVARIANTES CONTROL OF CONTROL OF COMMISSION COMMISSION COMMISSION COMMISSION AND ADMINISTRATION RESPONSE TO CITIZEN COMMENTS 13. COMMISSION AND ADMINISTRATION RESPONSE TO CITIZEN COMMENTS 14. ADMOUTHMENT

PORT & COMMERCE ADVISORY BOARD MEETING AGENDA July 24, 2019 The December 19, 2018, January L. 2019, February 6, 2019, March 6, 2018, April 3, 2019, and May 15, 2019 minutes were approved.

Meetings were scheduled for the Sewart Climate Action Plan Ad Hoc Committee on August 7, 2019 and August 31, 2010.

21, 2019.
PACAB meetings were scheduled on August 14, 2019 and September 18, 7019
A work session was scheduled on September 4, 2019 to discuss the city's budget and legislative priorities. A community marting was scheduled on September 24, 3019 at 6:30 p.m. in the library to review and discuss

the work of the Seward Climate Action Plan Ad Floc

UPCOMING MEETINGS

PLECOMING MEETINGS

Planning & Zoming Commission Regular Meeting
Toesday August 6, 2019 at 7:00 pm.
City Council Chambers

Port & Commerce Advisory Board
Climate Action Plan at Hos. Committee Meeting
Wednesday, August 7, 2019 at 12:00 p.m.
City Council Work Sersion
City Council Work Sersion
Friday, August 9, 2019 at 12:00 p.m.
Topic Review the August 12, 2019 Agenda Packet
City Council Work Ession

Topic Review the August 12, 2019 Ageda Facker (TV Council Work Fession Monday, August 12, 2019 at 500 pan (Tipic Guocal Chembers Topic Presentation of the City's Death 2018 Financial Report by 8DO UNA, Inc. City Council Meeting Monday, August 12, 2019 at 1,00 pan City Council Chambers Port & Commerce Activery Board Meeting Wednesday, August 14, 2019 at 12,00 pan (Ty Council Chambers

OBIHIRO, JAPAN STUDENT EXCHANGE WELCOME PARTY POT LUCK

All Public Invited
Friday, August 2, 2019 from 6:00-8:00 p.m
Seward Community Library

PUBLIC NOTICE 2019 CITY OF SEWARD REGULAR MUNICIPAL ELECTION

NOTICE IS HEREBY GIVEN that any qualified voter living within the Seward city limits for all cast one year prior to August 15, 2019 may file a declaration of candidacy for one of four available council seats that will

he filled at the segular municipal election to be condum. Tuesday, October 1, 2019. The Council Members currently held by Sue McClure, Surf Towsley, and Jer Horn, as well as the Mayor seat currently held by Do Sources, or auxiliable.

Interested candidates will file packets indicating which length of term they desire. There are three options availables mayor sets will have a three-year term, one council sea will have a conveyent term, and two councils seath will have three-year terms.

Sean manner incer-yeaf terms Candidate filing packets are available in the office of the City Clerk and may be filed with the clerk between 800 a.m. to 300 p.m. from August 1 through August 15, 2019. The City Clerks office will accept applications August 1, 2019 through August 13, 2019 from 800 a.m. - x00 p.m. Questions concerning candidate filing or any other aspect of the election should be directed to the City Clerk's office at 224-1046.

SEWARD FLANNING & ZONING COMMISSION NOTICE OF PUBLIC HEARING Tuesday, August 6, 2019 NOTICE IS HEREBY GIVEN that the Seward Planning and Zoning Commission will conduct a public hearing

on the following business item at a regular mes August 6, 2019.

August 5, 2019.

Resolution 2619-013, Of The Planning And Zuning Commission Of The City Of Seward, Alaska, Recommending Gity Council Approval Of The Recorning Of The West Half Of Federal Addition Blocks 7: 14:Arab 17-Except Lat 1:6 Block 17, Front Single-Family Residential (R) And Two Family Residential (R2) for Office Residential (OR) 100 Office Residential (R2) 100 Office R2) 100 Office R2 100 Office R2

(Rd) to Office well-comments (OS). The hearing well-comment at 7:00 p.m. or as 5000 thereafter as bosiness permits, in the City Hall Council Chambers, 410 Adams Street. All interested persons are invited to attend. For more unformation, contact the City of Several Community Development Office, Plo Bax 162: Several, KR 99644, or e-mail politile extrementation.

Interested in receiving a copy of this Seward City Calendar via e-mail? Contact the City Clerk at clerk@cityofseward.net or call 224-4045. Check out your city's website at www.cityofseward.net. Send any comments or future suggestions about the website to clerk@cityofseward.net.

AFFIDAVIT OF PUBLICATION

UNITED STATES OF AMERICA STATE OF ALASKA THIRD JUDICIAL DISTRICT

Before me, the undersigned, a notary public, this day personally appeared, Michael Paschall, who, being first duly sworn according to law, says that he represents TriDelta, Incorporated, publisher of the Seward Journal, a newspaper of general circulation published in Seward in said Third Judicial District and State of Alaska, and that the advertisement of which the annexed is a true copy, was published in said newspaper on the following day(s):

7-10-19, 7-3	1-19
and that the rate charged is not in excess of thusual discounts.	e rate charged private individuals, with the
	Michael R. Paschall
Subscribed and sworn before me this 25	day of
	(new Brown

NOTARY PUBLIC OF ALA

Notary Public in and for the

State of Alaska

My commission expires: 16-2-21

Opinion

Please speak up for the Seward airport

Seward and the Eastern Kenai Peninsula have a new opportunity to save the long runway at the Seward airport; we had better take advantage.

Federal Aviation Administration has instructed the Alaska Department of Transportation to schedule a joint public hearing, which was missed during the initial process, on its Seward Airport Rehabilitation Project. This meeting will be on Aug. 15

from 5:30 p.m. to 7 p.m. at the K. M. Rae Building in Seward. We are hoping for a significant turnout.

The City of Seward and many local stakeholders view this hearing as an important oppurtunity to revisit what all believe is a flawed decision. It is crucial to demonstrate to DOT the extent of support in the aviation and business communities, as well as the general population, for a longterm solution to the flooding at the airport.

aviators and other stakeholders in the Seward area, asking them to participate in an effort to maintain the Seward airport's two runways: runway 13/31 at 4,240 feet long and runway 16/34 at 2,279 feet long. They currently provide reasonable approaches to small and medium size aircraft in challenging wind conditions.

Although aviators and other stakeholders on the Eastern Peninsula generally endorse retaining that configuration,

I have made the rounds to DOT has settled on a plan to redesign comes with conflicts abandon the long runway.

Resurrection River, in its meanders, has approached the airport's 4,240 ft. runway, undermined the substrate and caused the load limits to be reduced, thereby making the full use of the runway unavailable. The history of the river is well documented. In the past, control efforts have succesfully - although temporarily - redirected flows away from the airport.

It is not my intent here to fully discuss the technical aspects of this work but rather to gain your support for reconsideration of DOT's plans to abandon runway 13/31 and rebuild runway 16/34 on a different footprint. This

oandon the long runway. of property ownership loss As you may know, the of habitat, interference with popular recreational areas, and ignores prospects for future development in the Seward

The City of Seward has contacted DOT, the U.S. Army Corps of Engineers and others and requested a delay in the project as this reconsideration and planning effort proceeds. Meetings of citizen groups and Seward advisory groups have taken place.

If you also believe that Seward needs its runway, please attend the hearing on Aug. 15. You may also contact me at bruce@jaffaconstruction.com to add your name to a list of runway supporters.

■ Inmates to Face Charges, Pg. 1

Tuesday, May 7, inmates stacked furniture against the entrance to Spring Creek's H-Mod, denying DOC staff access. The protestors also dam-

surveillance equipment in the mod, breaking windows, dislodging toilets, and wrecking laundry facilities.

At the time, prison Superintendent William Lapinskas said that he and his staff judged that the inmates were not a threat to one another.

"We knew instantly that their intent was to damage the facility, not to harm each other," he said at a press

conference shortly following the incident. "I think this was a well-planned-out riot. This was meant to send a very strong message."

sistance of a DOC special op erations response team, which arrived after midnight and tossed tear gas grenades into the mod through a skylight.

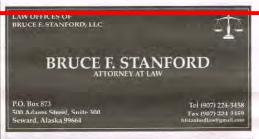
The department last week released a small number of documents describing complaints made by four inmates at the housing unit. At least two inmates took issue with property seizures, but it is not clear from the documents

whether those seizures took place during cell inspections.

The department has so far refused to release other documents sought by the Seward Journal, including

incident and a list of inmates who were living in H mod at

The housing unit has been operational since June 4 and now houses 56 general population inmates, Gallagher said. Only some of the men living in H Mod on May 7 are still there; those inmates had been found not to have actively participated in the rioting, Gallagher said.



Kenai Peninsula Borough Notice of Assembly Meetings

s and assembly session will be held in the Betty J. Olick Assembly Navarre Borough Administration Building, 144 N. Binklay Street, Soldotna

TUESDAY, AUGUST 6, 2019

KPR 22 40 010 & 1 12 040 AS 44 62 310

3:15 PM Finance Committee 3:45 PM Lands Committee 4:00 PM Policies and Procedures Committee 6:00 PM Regular Assembly Meeting

Ordinance 2019-19-05, Approying the Potchase and Installation of a Stens/Area Orthogoson Table from the South Paninsula Hospital Service Area Capital Projet Fund (Mayor) (Referred to Finance Committee)

Help us keep the community informed Your source for all of

> Seward's events! **Email events and announcements**

to news@sewardjournal.com



PUBLIC NOTICE 2019 CITY OF SEWARD REGULAR MUNICIPAL ELECTION FILING DATES & ELECTED OFFICES TO BE FILLED

NOTICE IS HEREBY GIVEN that any qualified voter fiving within the Seward city limits for at least one year prior to August 15, 2019 may file a declaration of candidacy for one of four available council seats that will be filled at the regular municipal election to be conducted on Tuesday, October 1, 2019. The Council Member seats currently held by Sue McClure, Suzi Towsley, and Jeremy Horn, as well as the Mayor seat currently held by David Squires, are available.

Interested candidates will file packets indicating which length of term they desire. There are three options available; mayor seat will have a three-year term; one council seat will have a one-year term, and two council seats will have three-year terms.

Candidate filing packets will be available in the office of the City Clerk beginning Monday, July 22, 2019, and may be filed with the clerk between 8:00 a.m. to 5:00 p.m. from August 1 through August 15, 2019. The City Clerk's office will not accept applications prior to August 1, 2019 at 8:00 a.m. or after August 15,

Questions concerning candidate filing or any other aspect of the election should be directed to the City Clerk's office at 224-4046.

Brenda Ballou, MMC City Clerk

2019 at 5:00 p.m.

Need help now?

Substance Abuse/ **Behavioral Health** Crisis Line

Available 24 hours/7 days

(907) 224-3027

Domestic Violence/ Sexual Assault Crisis Line Available 24 hours/7 days (907) 362-1843

Providing community based services that strengthen families, foster self sufficiency, and enhance quality of life.

Mailer and Distribution Lists

[This page intentionally left blank.]

Seward Airport Improvements Project #Z548570000 Notice of Public Hearing

The Alaska Department of Transportation and Public Facilities (DOT&PF), in association with the Federal Aviation Administration, is proposing to improve the airport in Seward, Alaska through the Seward Airport Improvements Project as described in the Draft Environmental Assessment (EA) and Proposed Action therein.

The Draft EA was published for public review in November 2018.

View a hard copy or download it online:

Seward Community Library & Museum, 239 6th Avenue, Seward DOT&PF Central Region Office, 4111 Aviation Avenue, Anchorage

www.dot.state.ak.us/creg/sewardairport/documents.shtml

Attend the <u>Thursday, August 15, 2019</u> Public Hearing Regarding the Draft EA and Proposed Action



www.dot.state.ak.us/creg/sewardairport

The DOT&PF operates federal programs without regard to race, religion, color, national origin, gender, age, marital status, or disability. Full Title VI Nondiscrimination Policy: dot.alaska.gov/tvi_statement.shtml. To file a complaint, go to: dot.alaska.gov/cvlrts/titlevi.shtml.



PRSRT STD US Postage PAID Anchorage, AK Permit #

c/o Solstice Alaska Consulting, Inc. 2607 Fairbanks Street, Suite B Anchorage, Alaska 99503



Project #Z548570000

The Alaska Department of Transportation and Public Facilities (DOT&PF), in cooperation with the Federal Aviation Administration, provide

NOTICE OF A PUBLIC HEARING FOR THE SEWARD AIRPORT IMPROVEMENTS PROJECT DRAFT ENVIRONMENTAL ASSESSMENT (EA) AND PROPOSED ACTION

Public Hearing

The public hearing was scheduled to collect comments on the Draft EA and Proposed Action.

WHEN: Thursday, August 15, 2019

5:00 pm to 7:30 pm

WHERE: K.M. Rae Marine

Education Building

125 Third Avenue, Seward

Attendees may provide recorded public testimony.

Comments

Please provide comment(s) through any or a combination of the methods described below or via Public Hearing testimony by <u>August 25, 2019</u>.

Mail comments to:

Brian Elliott, Environmental Manager, DOT&PF, Preliminary Design & Environmental, P.O. Box 196900, Anchorage, AK 99519-6900

E-mail comments to:

Brian.Elliott@alaska.gov

Include "Seward Airport Improvements comment" in the subject line.

Mailed comments must be postmarked no later than midnight, and e-mailed comments must be electronically received no later than midnight on August 25, 2019.

First Name	Last Name	Title	Organization/Agency	Mailing	City	State	Zip Code
Brandon	Anderson		Alaska Wing Civil Air Patrol	PO Box 6014	Elmendorf AFB	AK	99506
Burke	Anderson			PO Box 2283	Seward	AK	99664
Jon	Andrews			PO Box 1034	Seward	AK	99664
William	Ashton	Environmental Engineer	ADEC, Division of Water, Wastewater	555 Cordova St	Anchorage	AK	99501
		,	Discharge Authorization, Stormwater and Wetlands				
Sarah	Aslam			PO Box 393	Seward	AK	99654
Eddie	Athey	Fire Chief	City of Seward	PO Box 167	Seward	AK	99664
Dwayne	Atwood	Planning Technician	City of Seward	410 Adams, PO Box 167	Seward	AK	99664
				P.O. Box 3422	Seward	AK	99664
Anthony	Baclaan			P.O. Box 2894	Seward	AK	99664
Greg	Balogh	Field Office Supervisor for the Protected Resources Division	National Marine Fisheries Service (NMFS)	P.O. Box 21668	Juneau	AK	99802-1668
Michael G.	Banas			PO Box 3605	Seward	AK	99664
Barbara	Beaton	Project Manager	Alaska Department of Transportation & Public Facilities, Central Region, Aviation Design	PO Box 196900	Anchorage	AK	99519-6900
Jane	Belovarac			P.O. Box 3446	Seward	AK	99664
Louis	Bencardino			PO Box 95	Seward	AK	99664
Laurie	Beneardino			PO Box 95	Seward	AK	99664
E.	Bentler			PO Box 624	Seward	AK	99664
Max	Best	Borough Planning Director	Kenai Peninsula Borough	PO Box 2175	Soldotna	AK	99669
Erica	Betts		PDC Inc. Engineers	1028 Aurora Dr.	Fairbanks	AK	99709
Eugene	Beutler			PO Box 624	Seward	AK	99664
Joselyn	Biloon	Area Planner	Alaska Department of Transportation & Public Facilities	PO Box 196900	Anchorage	AK	99519-6900
Judy	Bittner		ADNR, Division of Parks & Outdoor Recreation (DPOR), State Historic Preservation Officer (SHPO)	550 W 7th Ave., Ste 1310	Anchorage	AK	99501-3565
Percy H. and Daisy Mae	Blatchford		Treservation officer (officer)	PO Box 1424	Seward	AK	99664
Brian	Blossom		AK Department of Fish and Game (ADF&G), Division of Habitat	514 Funny River Rd	Soldotna	AK	99669-8276
Matt and Linda	Bobich			130 W. International Airport Rd. Suite T	Anchorage	AK	99518
Basil S.	Bolstridge	c/o Iris Hammond		PO Box 212	Soldotna	AK	99669
Tommy W. and Bonnie L.	Boyce			4500 Macalister Dr.	Anchorage	AK	99502
Scott	Meszaros	City Manager	City of Seward	P.O. Box 167	Seward	AK	99664
Jamie	Brooks	Airport Leasing Specialist III	CR-Aviation Leasing, AK DOT&PF	PO Box 196900	Anchorage	AK	99519-6900
Russ	Burnand			PO Box 2746	Seward	AK	99664
Russell	Burnard			PO Box 2746	Seward	AK	99664
Lucas	Byker		AK Department of Fish and Game (ADF&G), Division of Habitat	514 Funny River Rd	Soldotna	AK	99669-8276
Rissie	Casagranda	Council Member	City of Seward	PO Box 167	Seward	AK	99664
Duane	Chase			PO Box 667	Seward	AK	99664
Rep. Mike	Chenault	·	Alaska State Legislature	State Capitol Room 208	Juneau	AK	99801
Tom	Clemons	Police Chief	City of Seward	PO Box 167	Seward	AK	99664
Paul	Clinton	E I' BY	S. and Chamber of Co.	PO Box 1181	Seward	AK	99664
Cindy	Clock	Executive Director	Seward Chamber of Commerce	PO Box 749	Seward	AK	99664
Laura	Cloward	Executive Director	Seward Chamber of Commerce	PO Box 749	Seward	AK	99664
Olivia	Cohn	Public Involvement	Solstice Alaska Consulting	2607 Fairbanks Street, Suite B	Anchorage	AK	99503
Royce	Conlon	Project Manager	PDC Inc. Engineers	1028 Aurora Drive	Fairbanks	AK	99709
Doug	Cooper	Ecological Services Branch Chief	U.S. Fish and Wildlife Service (USFWS)	4700 BLM Road	Anchorage	AK	99507
Jim	Cork	Owner	Godwin Glacier Dog Sled Tours	PO Box 2711	Seward	AK	99664
Lee	Corrigan			PO Box 770	Seward	AK	99664
Walter	Corrigan			PO Box 770	Seward	AK	99664
Virginia	Cuffe			PO Box 39390	Ninilchik	AK	99639
Tammy	Davis	Project Leader	AK Department of Fish and Game (ADF&G), Division of Habitat, Invasive Species Program, Juneau	PO Box 115526	Juneau	AK	99811-5526

First Name	Last Name	Title	Organization/Agency	Mailing	City	State	Zip Code
	Dearlove	Director	Kenai River Center	514 Funny River Road	Soldotna	AK	99669
	DeGrave			12007 Old Exit Glacier Rd.	Seward	AK	99664
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	Dunham			PO Box 27	Seward	AK	99664
	Dunn			PO Box 763	Seward	AK	99664
Matt	Eagleton	EFH Coordinator	National Marine Fisheries Service (NMFS)	P.O. Box 21668	Juneau	AK	99802-1668
	Edelmann	Central Region Airport Planner	Federal Aviation Administration, Alaska	222 W. 7th Ave, M/S #14	Anchorage	AK	99513-7587
······································	Luciniani	central region, in pore riamier	Region, Airports Division	222 *** **** **** **** **** **** ****	, menorage	,	33313 7307
Jeff	Estes			PO Box 167	Seward	AK	99664
William	Fejes			PO Box 2428	Seward	AK	99664
Raymond	Foldager			PO Box 671	Seward	AK	99664
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Patricia	Freeman	A Revocable Trust		16233 NE 9th PL	North Miami Beach	FL	33162
Mark	Gansen			P.O. Box 1141	Seward	AK	99664
Thomas W.	Gillespie			PO Box 1514	Seward	AK	99664
Patrick	Gillis			410 Adams St.	Seward	AK	99664
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Scott	Griebel	Borough Maintenance Director	Kenai Peninsula Borough	144 N. Binkley	Soldotna	AK	99669
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Carol	Griswold			P.O. Box 1342	Seward	AK	99664
William	Hamerly			PO Box 1121	Seward	AK	99664
	Hamilton		Seward Air, LLC	PO Box 7	Seward	AK	99664
Denny Shane	Hand		Seward Air, LLC	PO Box 1885	Seward	AK	99664
Don						AK	99664
	Hanna			P.O. Box 87 PO Box 1441	Seward Seward	AK	99664
	Hansen	Flandalaia Administratur	Karai Basinanla Basanah				
,	Harris	Floodplain Administrator	Kenai Peninsula Borough	514 Funny River Road	Soldotna	AK	99669 99664
Don	Hauenstein			PO Box 3003	Seward	AK	
	Haworth			699-150 Gold Crest Ln	Susanville	CA	96130
	Hearn	2	ABSC Di trico effett O elli Alex Bette O	PO Box 1927	Seward	AK	99664
Cindy	Heil	Program Director	ADEC, Division of Air Quality, Non-Point & Mobile Sources Program	555 Cordova St.	Anchorage	AK	99501
Eric	Helms	Lead Civil Engineer	FAA, Alaska Region, Airports Division (AAL-	222 W. 7th Ave, M/S #14	Anchorage	AK	99513-7587
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			,	P.O. Box 167			
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Dale	Hoogland			PO Box 1991	Seward	AK	99664
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Jerenny	TIOI II	City Council	Gity Oi Seward	TTO AUGINS SLICEL	Sewaru		33004
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Pete and Susan	Kesselring Sr.			755 Knightsbridge Rd.	Fairbanks	AK	99507
Harvey						ļ	
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	Lairar				Coward	AV	00664
Steve	Leirer			P.O. Box 524	Seward	AK	99664

					-		
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				1 O BOX 051			
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Mari	Nelsen			PO Box 1777	Seward	AK	99664
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	Ooka			PO Box 1218	Seward	AK	99664
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	-	,	,				
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-	Peck			PO Box 2244	Seward	AK	99664
Tyler	Pelo			P.O. Box 2473	Seward	AK	99664
Bacci	Perata			PO Box 1696	Seward	AK	99664
	Perata			PO Box 1696	Seward	AK	99664
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Jonathan	Perry			PO Box 1806	Seward	AK	99664
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	Rorabaugh			PO Box 616	Seward	AK	99664
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Alex	Rule			PO Box 1166	Seward	AK	99664

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	Snowden			PO Box 670	Seward	AK	99664
Allen	Sorensen			PO Box 1432	Seward	AK	99664
Dennis	Sorensen			PO Box 1432	Seward	AK	99664
	Squires	Mayor	City of Seward	PO Box 167	Seward	AK	99664
Barton	Stanton			PO Box 1187	Seward	AK	99664
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Mable E.				,			
Douglas A.	Stephens, PLS	Land Use and Utility Specialist Real Estate Division	Alaska Railroad Corporation	826 Whitney Road #214	Anchorage	AK	99502
Sen. Gary	Stevens	State Senator - District R	Alaska State Legislature	State Capitol Room 429	Juneau	AK	99801
Diane	Stewart		U.S. Department of Commerce, NOAA	7600 Sand Point Way NE BIN C15700	Seattle	WA	98115
Sandy	Stolle			P.O. Box 2363	Seward	AK	99664
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Christy	Terry		ARRC	PO Box 167	Seward	AK	99664
Jean-Marc	Tesson			PO Box 601	Seward	AK	99664
Chris	Thayse			PO Box 3044	Seward	AK	99664
Celeste	Thorne			2148 G ST	Eureka	CA	95501
Gregory	Thrall			25875 Primrose Rd	Seward	AK	99664
Linda	Thrall			25875 Primrose Rd	Seward	AK	99664
John A.	Todd Jr.			13320 Crestview Dr.	Anchorage	AK	99516
Suzi	Towsley	City Council	City of Seward	410 Adams Street	Seward	AK	99664
Ace F.	Trask			90 Eagles Rest Lane	Sequim	WA	98382-9154
Sadie	Ulman		Alaska SeaLife Center	P.O. Box 1329	Seward	AK	99664
Susan	Urig			2905 Marston Drive	Anchorage	AK	99517
Bob	Vardatten			PO Box 1267	Seward	AK	99664
Peggy	Ventura			PO Box 538	Seward	AK	99664
Johnthomas P.	Williamson			8640 E. 10th Ave. Apt B	Anchorage	AK	99504
Lucky H.	Wilson			PO Box 685	Seward	AK	99664
Thomas	Wright			PO Box 2646	Seward	AK	99664
Heidi	Zemach			PO Box 1205	Seward	AK	99664
Leif Olson and Karyn Clemens				PO Box 583	Seward	AK	99664
Mary P. Fay and Teri L.		c/o Cynthia Henry		PO Box 39298	Ninilchik	AK	99639
Namtvedt							

First Name	Last Name	Title	Organization/Agency	Mailing	City	State	Zip Code
			Afognak Logging	PO Box 610	Seward	AK	99664
			Alaska Airmen Association	4200 Floatplane Drive	Anchorage	AK	99502
		Public Information Center	Alaska Dept. of Natural Resources	550 W. 7th Ave #1660	Anchorage	AK	99501
			Alaska SeaLife Center	P.O. Box 1329	Seward	AK	99664
			Civil Air Patrol	PO Box 6014	JBER	AK	99506
			Eastern Kenai Peninsula Environmental Action Association	PO Box 1092	Seward	AK	99664
		Real Estate and Utilities Branch	FAA	222 W. 7th Ave #14	Anchorage	AK	99513
			Harbor Fuel Service	PO Box 1189	Seward	AK	99664
			Kenai Fjords National Park	PO Box 1727	Seward	AK	99664
		Borough Planning	Kenai Peninsula Borough	PO Box 333	Seward	AK	99664
		City of Seward Representative 14896	Kenai Peninsula Borough Economic, Development District, Inc.	Kenai Spur Highway Suite 103- A	Kenai	AK	99611
			Leirer Family Limited Partnership	PO Box 524	Seward	AK	99664
			Metco Properties	2701 Seward Hwy	Seward	AK	99664
			Providence Seward Medical Center	P.O. Box 365	Seward	AK	99664
			Scenic Mountain Air, Inc.	PO Box 4	Moose Pass	AK	99631
		c/o Carolyn Hoseth, Personal Representative	Willard Midbey and Thomas B. Hicklin	PO Box 183	Dillingham	AK	99576
		Aircraft Owner		33607 Nash Rd	Seward	AK	99664
an	Nelson	Emergency Manager	Kenai Peninsula Borough, Office of Emergency Management	144 N. Binkley Street	Soldotna	AK	99669
cott	Reierson			417 4th Avenue	Seward	AK	99664
eNeil	Flaherty	Executive Liaison	City of Seward, City Manager's Office	P.O. Box 167	Seward	AK	99664
harles	DiMarzio		Alaska SeaLife Center	PO Box 26716	Seward	AK	99664

Email Announcements and Distribution Lists (Project Announcements, What's Up)

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firearms. Volunteers must be 18 or older. Volunteers will hike four miles roundtrip to the worksite. This is a moderate hike where you will be carrying tools as well. Volunteers must be physically fit enough to complete this hike and work a full day. To register go to https://www.eventbrite.com/e/portage-pass-trail-day-tickets-64571129988.

**August 2 - 4

NINILCHIK - SALMONFEST 2019 - CELEBRATE WILD SALMON! From its roots as a conservation-oriented fundraising concert to its ongoing unofficial reign as the Woodstock of Alaska, Salmonfest aims to deliver "three days of fish, love and music" by top national and local musical acts during the wet, green climax of Alaska's long summer season. Each year, more than 8,000 people converge on Kenai Peninsula Fairgrounds for the celebration, which includes venders selling food, arts and crafts. More than 20 nationally known performers are expected in 2019, with scores of additional acts playing on the event's four stages. Patrons typically spend a night or two in the vicinity, often camping at Deep Creek State Recreation Area. Proceeds go toward salmon conservation and other Alaskan environmental and cultural causes. For more information, go to https://salmonfestalaska.org/2019-lineup/.

**August 3

SEWARD – **21st ANNUAL WILDLIFE RESCUE RUN and WALK 5K** will start at Noon at the Alaska SeaLife Center for a fun run along the shore of Resurrection Bay and help injured and stranded marine animals. Cost: \$35 before August 2; \$40 on race day. Registration is now open. Want to support Wildlife Response at a higher level? Become a sponsor of the race and have your name or logo displayed on the t-shirt. Please email development@alaskasealife.org for any questions.

**August 4

TALKEETNA - PAINT WILDFLOWERS, enjoy the community, and indulge in delicious treats and snacks in one of Alaska's best watersheds! **ARTIST**, **KERRI LATHROP** will teach you how to paint with alcohol ink on Yupo paper. All supplies and templates provided so you can leave with a finished 9"x12" piece of art. Beverages and snacks are available to purchase. \$50 - Tickets available for purchase online.

**August 11

ESTER - CALYPSO FARM & ECOLOGY CENTER,OPEN HOUSE will be held from noon to 4pm that was postpone because of air pollution from forest fires. Hopefully the smoke will clear. August is a beautiful month on the farm, so we hope to see you then!!

**August 15

SEWARD – Public hearing will be held from 5 to 7:30pm in the K.M. Rae Marine Education Building, 125 Third Avenue, to comment on the proposal to **IMPROVE the AIRPORT** through the **SEWARD AIRPORT IMPROVEMENTS PROJECT** and address the proposed actions, potential economic, social, and environmental impacts, and the project's consistency with the DOT&PF documented its Proposed Action to close Runway 13-31 and upgrade Runway 16-34 by relocating/reconstructing it, raising it above the 100-year flood level, and extending it to 3,300 feet long in the Draft EA. The project website can be found at www.dot.state.ak.us/creg/sewardairport. The Draft EA is available at http://www.dot.state.ak.us/creg/sewardairport/documents.shtml. Submit written comments to Brian Elliott, Environmental Manager, at brian.elliot@alaska.gov..

**August 17

HOPE - MINESHAFT GRINDER RACE will be held to celebrate the mining history by ushering racers up PALMER CREEK ROAD IN THE INAUGURAL MINESHAFT GRINDER. Participants will choose between Gold, Silver, or Quartz Grinders. The Gold Grinder is an uphill-only bike race for riders to grind up ~1900' gain over ~11 miles. At the end of Palmer Creek Road, riders may opt to work their claim for a time deduction by hauling a bucket of rocks a short distance along the roadway before joining friends for an untimed social ride back down. Runners will race both up and down hill, turning at ~2 miles with ~300' gain for the Quartz Grinder or at the switchbacks ~4 miles in with ~1200' gain the Silver GrinderQuartz and Silver Grinders (Running): \$35 adults, \$15 youth. Start: 10:30amGold Grinder (Biking): \$50 adults, youth contact the race director for entry. Start 10am. For more info go to www.kmtacorridor.org/mineshaft or contact liaslemons@kmtacorridor.org.

ITEMS of INTEREST

Buy a **KACHEMAK HERITAGE LAND TRUST RAFFLE TICKET and support great and lasting conservation? It's for a **TRIP to HAWAII!** It includes \$1,000 Alaska Airlines gift certificates (2 x \$500) - unrestricted so you don't HAVE to use them to go to Hawaii. You can use them for whatever you want! Only 300 tickets are being sold. Help protect salmon and wildlife habitat. \$100 per ticket and Kachemak Heritage Land Trust is having a live Facebook drawing on August 23 at Homer's Grace Ridge brewery. Call (907) 235-5263 or stop by at 315 Klondike, Homer for your tickets.

KEEPING OUR OCEANS SAFE AND CLEAN is an Environmental Protection Agency (EPA) video showcasing the work conducted by EPA Chief Scientists, who are critical to ensuring that the marine environment is protected, while supporting navigational safety, national security, and a multi-billion-dollar marine transportation economy. Check out the video at

Solstice AK

From: Solstice AK

Sent: Friday, August 2, 2019 2:07 PM

To: Solstice AK

Subject: Notice of August 15 Public Hearing: Seward Airport Improvements Project

The Alaska Department of Transportation and Public Facilities (DOT&PF), in cooperation with the Federal Aviation Administration, provides: **NOTICE OF A PUBLIC HEARING FOR THE SEWARD AIRPORT IMPROVEMENTS PROJECT DRAFT ENVIRONMENTAL ASSESSMENT (EA) AND PROPOSED ACTION.**

See below for details and please visit the project website to read the updated frequently asked questions (FAQs). In response to comments that have been received from the public, the Seward Airport Improvements Project FAQs section of the project website has been updated, and FAQ responses are available here:

http://dot.alaska.gov/creg/sewardairport/faq.shtml.

Seward Airport Improvements Project #Z548570000 Notice of Public Hearing

The Alaska Department of Transportation and Public Facilities (DOT&PF), in association with the Federal Aviation Administration, is proposing to improve the airport in Seward, Alaska through the Seward Airport Improvements Project as described in the Draft Environmental Assessment (EA) and Proposed Action therein.

The Draft EA was published for public review in November 2018.

View a hard copy or download it online:

Seward Community Library & Museum, 239 6th Avenue, Seward DOT&PF Central Region Office, 4111 Aviation Avenue, Anchorage

www.dot.state.ak.us/creg/sewardairport/documents.shtml

Attend the Thursday, August 15, 2019 Public Hearing Regarding the Draft EA and Proposed Action

Public Hearing

The public hearing was scheduled to collect comments on the Draft EA and Proposed Action.

WHEN: Thursday, August 15, 2019, 5:00 pm to 7:30 pm

WHERE: K.M. Rae Marine Education Building, 125 Third Avenue, Seward

Attendees may provide recorded public testimony.

Comments

Please provide comment(s) through any or a combination of the methods described below or via Public Hearing testimony by <u>August 25, 2019</u>.

Mail comments to: Brian Elliott, Environmental Manager, DOT&PF, Preliminary Design & Environmental, P.O. Box 196900, Anchorage, AK 99519-6900

E-mail comments to: <u>Brian.Elliott@alaska.gov</u>. Include "Seward Airport Improvements comment" in the subject line.

Mailed comments must be postmarked no later than midnight, and e-mailed comments must be electronically received no later than midnight on August 25, 2019.

Project Website: www.dot.state.ak.us/creg/sewardairport

The DOT&PF operates federal programs without regard to race, religion, color, national origin, gender, age, marital status, or disability.

Full Title VI Nondiscrimination Policy: dot.alaska.gov/tvi_statement.shtml. To file a complaint, go to: dot.alaska.gov/cvlrts/titlevi.shtml.

Email Distribution List for

August 2, 2019 Email Announcing Hearing and Providing Link to FAQs

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(after some emails were returned)

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Representative.Gary.Knopp@akleg.gov Representative.Ben.Carpenter@akleg.gov

Solstice AK

From: Solstice AK

Sent: Wednesday, August 14, 2019 10:03 AM

To: Solstice AK

Subject: Reminder: Notice of August 15 Public Hearing: Seward Airport Improvements Project

Attachments: SWDAirportHearing_Overview.pdf

Reminder: please attend the Seward Airport Improvements Project public hearing this Thursday, on August 15, 2019 between the hours of 5PM to 7:30PM. The hearing will be located at the K.M. Rae Marine Education Building at 125 Third Avenue, Seward.

<u>Please note that the hearing will be organized in an open house format. Therefore, there will be NO formal presentation or panel discussions. Attendees may come at any time that meets their schedules, during the hours of the hearing.</u> Attendees may privately provide verbal testimony to a court reporter or comment via one of the options described in the attachment.

The meeting notice and details are attached.

Email Distribution List for August 14, 2019 Email Hearing Reminder

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August 2019 Hearing Documentation, Comments, and Feedback

Hearing Sign-In

Public Hearing • August 15, 2019 • 5PM to 7:30PM

Voluntary Information Requested by the Civil Rights Office of the Alaska Department of

Transportation and Public Facilities *

Thank you for your attendance today. Please sign in (legible print is appreciated)!

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Project Website: www.dot.state.ak.us/creg/sewardairport

Public Hearing • August 15, 2019 • 5PM to 7:30PM

Voluntary Information Requested by the Civil

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Bob Linville	10 Bey 1753 Sam 1205 VICKA Are	d linnilleaschind	Male/Female	White/Alaska Native/Native American/ Black/Hispanic/Asian/Pacific Islander/Other
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Eliza beth Dun	500 DOX 1823	beckydunn 30/2	Male/Female	White/Alaska Native/Native American/ Black/Hispanic/Asian/Pacific Islander/Other
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Public Hearing ◆ August 15, 2019 ◆ 5PM to 7:30PM

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Project Website: www.dot.state.ak.us/creg/sewardairport

^{*} The purpose of requesting this information is to ensure fair and equal representation by the public in all projects and programs administered by the Alaska Department of Transportation and Public Facilities.

Public Hearing ◆ August 15, 2019 ◆ 5PM to 7:30PM

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Project Website: www.dot.state.ak.us/creg/sewardairport

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Project Website: www.dot.state.ak.us/creg/sewardairport

Handouts

(Station Overview and Frequently Asked Questions)

Seward Airport Improvements Project #Z548570000

PUBLIC HEARING OVERVIEW

Thursday, August 15, 2019, 5:00 pm to 7:30 pm · K.M Rae Marine Education Bldg., 125 Third Ave., Seward

Hearing Background and Purpose

The Alaska Department of Transportation & Public Facilities (DOT&PF) is holding this public hearing to:

- Respond to the request for a public hearing regarding the Draft Environmental Assessment (EA)
- Provide an opportunity for the public to provide recorded testimony

This project has received a variety of public comments – some of which requested a larger runway and some of which requested a smaller runway or no project at all.

Acknowledging that community input raises valid points on both sides of this discussion, this hearing's purpose is to provide information about the research and analysis that has informed the Proposed Action while creating an opportunity for the public to provide recorded testimony to a court reporter.

Hearing Format

- Open house hours are from 5:00 PM to 7:30 PM
 - No formal presentation will occur
 - Attend and provide testimony at any time
- To participate, sign in, review displays, provide verbal testimony and written comments

The displays are consistent with the Draft EA that was made available in November 2018. A handout is available with responses to frequently asked questions.

Provide testimony by visiting the Verbal Testimony station and speaking with the court reporter or by providing a written comment form.

Project Website: www.dot.state.ak.us/creg/sewardairport

Sources Consulted and Additional Information

In addition to the Draft EA, steps that have informed this project have included a hydraulic analysis and flood study, a current and future airport demand and use study (including interviews with Seward-based pilots), a scoping report, a stakeholder working group, and consulting with local, state, and federal agencies.

Project reports and documentation are available online at: http://dot.alaska.gov/creg/sewardairport/documents.shtml.

Local, state, and federal agencies and stakeholders that have and are being consulted throughout this process regarding natural resources and wildlife include the following:

- AK Dept. of Environmental Conservation (ADEC), Air Quality Division, Non-Point & Mobile Sources Program
- ADEC, Spill Prevention & Response Division, Contaminated Sites
- ADEC, Water Division, Wastewater Discharge Authorization, Stormwater and Wetlands
- AK Dept. of Natural Resources, Parks
 & Outdoor Recreation Division, State
 Historic Preservation Office
- AK Dept. of Commerce, Community, & Economic Development, Community & Regional Affairs Division
- AK Dept. of Fish & Game (ADF&G), Habitat Division
- ADF&G, Habitat Division, Invasive Species Program

- ADF&G, Wildlife Conservation Division
- Alaska Railroad Corporation
- City of Seward (Planning Technician and City Manager)
- Kenai Peninsula Borough (KPB), Seward/Bear Creek Flood Service Area
- KPB, Floodplain Administrator
- Kenai River Center
- National Marine Fisheries Service (NMFS), Protected Resources Division
- NMFS, Essential Fish Habitat
- U.S. Army Corps of Engineers, Kenai Field Office Regulatory Division
- U.S. Fish & Wildlife Service (USFWS), Ecological Services
- USFWS, Biologist (with bird expertise)

DOT&PF Project Manager: Barbara Beaton, PE Email: barbara.beaton@alaska.gov · Telephone: 907-269-0617

Project Website: www.dot.state.ak.us/creg/sewardairport

Seward Airport Improvements Project Frequently Asked Questions (FAQs)

This information is also available online at http://dot.alaska.gov/creg/sewardairport/faq.shtml

Q. What project improvements are planned and how were they selected?

A. The project will shift, lengthen, and raise Runway 16/32 above the 100-year flood level. Some of the taxiways will be raised at the new runway intersection to meet the new runway elevation while others will be deleted in accordance with current Federal Aviation Administration (FAA) guidance. New runway/taxiway lighting will be installed. The river side of the runway will receive erosion protection to keep it safe from flooding. The aprons will be repaved, and new navigation aids will be installed. Runway 13/31 and Taxiway A will be closed permanently.

This project scope corresponds to Alternative 2.2. Three alternatives were evaluated during the scoping process. Alternative 2.2 had the most advantages and least number of disadvantages. Therefore, it was selected and moved forward into design. A public meeting was held in Seward to discuss the alternatives and evaluation in March 2016.

Q: When will the improvements be built? Where is the Department of Transportation and Public Facilities (DOT&PF) in the project development process?

A. Construction funding is programmed for 2020; however, receipt of this funding is highly dependent upon the completion of the environmental/permitting and design processes. The project is about 95% complete for both processes. The intent is to complete the project in time for FAA funding in 2020. FAA plans out funding for 3-5 years at a time. If the project is not ready to bid in 2020, construction funding could be delayed.

Q. Why is this project needed?

A. Regular flooding intervals from the Resurrection River have increased significantly in occurrence and intensity, during the last several years. In response, the Maintenance section of DOT&PF installed a riprap levee. The levee has reduced the number of flood occurrences but has not eliminated them. Hydrologists anticipate that the river will push through the levee and main runway and will flood most, if not all, of the airport. The damage would likely be extensive and may require the airport to shut down in order to complete repairs. In addition to the flooding issue, the airport needs updates that correspond to current FAA regulations.

Q. Why not use dredging to move the Resurrection River back to the other side of the river delta?

A. There is no guarantee that the river would stay there. The Resurrection River is a braided river. Braided rivers move back and forth within the river delta, searching for a path of least resistance. Dredging will likely be needed regularly for it to remain effective. The DOT&PF does not have funds to maintain the dredging. On-going budget cuts have reduced personnel and resources within its Maintenance section. This section is about to undergo another series of budget cuts. Previously, it was agreed that the City of Seward and the Kenai Peninsula Borough would continue dredging maintenance. They have not done so, likely due to funding constraints, as well.

Additionally, if the river were forced to the other side of the delta, it is likely that privately-owned properties on that side of the river delta would experience increased flooding. For these reasons, dredging is not a reasonable solution. For more information, consult the paper on dredging, prepared by the Seward Airport Improvements Project's Hydrologist, available on the project website.

Q. Why not just improve the main runway?

A. This option was evaluated during the Scoping process as Alternative 1.1. A flood study showed that this runway would need to be raised several feet to prevent flooding of the airport during the design flood (100-year) event. Most of this runway is located within the regulatory floodway shown on the Flood Insurance Rate Map (FIRM). Any fill into the floodway, that would occur due to raising the runway, results in raising the Base Flood Elevation (BFE) on the map as well as increasing flooding on adjacent properties. Raising the runway to the level needed to protect the airport would result in additional flooding to approximately 160 acres of private/government properties. While some of these properties are currently vacant, many are not. A revision to this map to change the BFE would require public approval. It's unlikely the proposed revision would be approved by the public, due to the likely increase in flooding and subsequent increase in flood insurance to the affected property owners.

Finally, the runway's location next to the river increases construction and permitting challenges. Permitting agencies expressed concerns about this alternative. Federal guidance prevents such activities if a feasible alternative (such as the current project) exists. The Draft Environmental Assessment (EA), which is the project's environmental document, provides a further description of the floodplain impacts anticipated for Alternative 1.1.

Q. In the absence of the main runway, many Seward residents would like to have a 4,000-foot runway instead of a 3,300-foot runway. Is this possible?

This option was evaluated as Alternative 3.0 during the scoping process. While it is possible to build a runway of this length, it would require an additional funding source. Federal funding (FAA) is providing almost 94% of the project costs, so following FAA requirements is mandatory. FAA criteria does not justify a 4,000-foot runway because there are not enough larger aircrafts that utilize the airport. Therefore, FAA will not fund this option at this time. The design team collected aircraft traffic information over a period of several years, including several years before the weight restrictions were put into effect for the main runway.¹

Q. The No-Build option is described in the environmental document. Is this really an option?

A. It is not a feasible option. The airport will continue to suffer damage from flooding. At some point, the main runway will not be usable. If the river breaks through the main runway, the entire airport could be damaged. The Draft EA provides additional details regarding why this option is not feasible.

Q. Are the low traffic counts a self-fulfilling prophecy?

A. No. While large air traffic counts do not currently support a longer runway, they could increase in the future. The new runway will have the strength to support larger aircraft, as long as they are not fully loaded; (a longer runway would be needed for a fully loaded aircraft). Also, if the City can persuade an air carrier to service Seward again, the City can work with the DOT&PF and FAA to look at a future project to lengthen the runway. As it stands today, the DOT&PF is planning to purchase property for a future 4,000-foot runway to assist with this option. Also, the Airport Layout Plan, currently under development, will show a 4,000-foot runway as an Ultimate Condition. These steps are required as a precursor to receiving FAA funding to construct a 4,000-foot runway in the future.

¹See the Scoping Report, Position Paper and Draft Environmental Assessment for additional information. All documents are available on the project website.

Q. Can a 4,000-foot runway be used as a justification for emergency response?

A. No. The Design team conferred with FAA about this issue. A runway cannot be constructed for occasional use, even if the use is emergency response.

Q. Why doesn't the DOT&PF realize that the City of Seward can be cut off at any time?

A. We have listened to this concern expressed by some residents of Seward. However, our involvement is restricted to the airport and State-maintained roads. Both facilities are maintained regularly and to the best degree possible. The DOT&PF has undergone several rounds of budget cuts, significantly affecting the Maintenance section in particular. Clearing the highway after an avalanche is a maintenance priority. Newer equipment makes this a faster process. Helicopters are also available to aid in a potential crisis. In the meantime, Seward does have other modes of transportation, unlike many other small towns/villages in the state. There are numerous villages in the state that depend solely on their airports for food, fuel, clothing, medical evacuations etc....

Q. How does this project relate to medevac operations?

A. The proposed runway will be capable of supporting the King Air 200, which is the aircraft commonly utilized for medical evacuations. Seward has a local hospital that can stabilize patients until they can be transported by medivac to Anchorage. The local hospital also has a helicopter to meet this need.

Q. The Seward Airport is important to this community and economic development opportunities. Can this project support the economic development goals of the City of Seward, which considers jet service as an economic driver?

A. The City of Seward was interviewed during the Scoping process to discuss the probability of future growth and economic development. Interviews showed that the airport does not have regular use by larger aircrafts. As a result, larger aircrafts could not be included in the traffic count, which is used to select the design aircraft. The design aircraft determines the size of the airport facilities.¹

Q. Have you considered the Coast Guard's C-130 operations in the traffic counts? Can Seward have a longer runway to support Coast Guard operations?

A. Use of the airport by the Coast Guard was documented. According to FAA, it will not fund public airport improvements to support military aircraft. Therefore, military aircraft use could not be included in the traffic counts used to determine the design aircraft. However, even if military aircraft operations were included, the overall number of large aircraft would still fall significantly short of justifying a longer runway.

Q. Are two runways needed so that pilots have options in varying wind conditions?

A. Orienting the runway to maximize the prevailing wind direction is a key aspect of airport planning. FAA strives to provide facilities that have a minimum of 95% wind coverage, meaning the orientation of the runway is aligned with the prevailing winds 95% of the time. If the winds are not aligned with the runway for more than 5% of the time, FAA recommends a second (crosswind) runway. The existing orientation of Runway 16/34 provides 99.53% of wind coverage, exceeding FAA's minimum requirement. This orientation will be maintained for the new runway. During public meetings and private interviews, many pilots supported improving Runway 16/34, over Runway 13/31, for this reason. Pilots can choose to not fly during occasional strong winter winds, much like other pilots and small carriers all over the state.

¹See the Scoping Report, Position Paper and Draft Environmental Assessment for additional information. All documents are available on the project website.

Q. The project will block existing access to the river tidelands used by floatplane operators. Can a new access be provided?

A. The project is evaluating options for incorporating a new floatplane access. Design may require the acquisition of additional property. If so, this feature will be tabled for a later design. FAA has proposed a standalone project to provide this access if additional property is needed. Construction of the project will move forward independent of any property acquisition due to the recurrent flooding. However, in the meantime, access via Bear Lake is an option.

Q. Does the project include fencing? Some residents value being able to cross airport property to access the mudflats for bird viewing and recreation.

A. Yes, the current design calls for fencing along the Airport Access road and south of the airport apron adjacent to the railroad property to the west. The Seward Airport is a federal aid, State-owned airport. The DOT&PF is responsible for ensuring safe operating conditions, which is one of the many grant conditions associated with the acceptance of FAA funding. Failure to adhere to grant assurances jeopardizes future federal aid for improvements and maintenance for this airport. Fencing is a typical component used, at airports nationwide, to ensure safety by preventing airport incursions. Members of the public should not be accessing the airport property, as these instances are considered airport incursions or safety risks. Instead, the public should use public access areas to access the coast.

Q. When and how will natural resource impacts from construction of the project on the wetlands/tidal flats/estuary area be considered?

A. Project construction would require fill to be placed in tidal flats and estuary, an area that provides habitat for salmon and migratory birds (including Arctic Terns and waterfowl). As part of the Environmental process, the project team consulted with state and federal resource agencies that have jurisdiction over each natural resource. Results of these consultations as well as impacts to these and other natural resources were evaluated during the Environmental phase of the project and are discussed in the environmental document¹.

Q. Has the project considered impending sea-level rise and storm erosion since the airport is close to the ocean?

A. A Hydraulic and Hydrology (H&H) analysis has been completed, which analyzed Resurrection River flooding and considered coastal flooding from Resurrection Bay. Riprap (armor rock) along the relocated Runway 16-34 will be sized according to anticipated storm surges. Current federal guidance precludes incorporating climate change impacts into the evaluation of environmental impacts.

Q. Is the use of the jetty/mudflats for the project an incompatible use because the area is already used by birds? Also, does the Alaska Railroad Corporation have plans for a marine terminal expansion?

A. Land use impacts and compatibility is discussed in the environmental document.¹ Birds and airports are incompatible. Birds can cause aircraft crashes and have done so at other locations.

The DOT&PF established a project's stakeholder working group at the beginning of the project, which included the Alaska Railroad Corporation as an adjacent landowner. The group was assembled to ensure good communication and coordination on important infrastructure projects in the area and to discuss the development of the project at key steps.

¹See the Scoping Report, Position Paper and Draft Environmental Assessment for additional information. All documents are available on the project website.

Q. What opinions have been received regarding this project to date?

A. There have been three public meetings to date at various milestones during project development. We have heard a broad range of opinions on the project. Some people expressed that an airport with a long (4,000-foot) runway is important to the community. Some other people noted frustration at the airport's current weight restrictions. Others have commented that Seward is a small community that doesn't need a big airport. This comment expressed a need for the environment to be preserved over an effort to expand the airport, noting concern over projects that promote more of Seward's industrial feel at the expense of wildlife/nature/the environment. Other people have commented that they support expanding the small runway over reconstructing the main runway.

Q. When will costs beyond construction costs (such as socioeconomic, environmental, property acquisition, and so on) be determined and be part of the evaluation process?

A. Preliminary costs/impacts associated with these factors and others were considered during the Scoping phase of the project. Refer to the Alternative Analysis available on the project website.

¹See the Scoping Report, Position Paper and Draft Environmental Assessment for additional information. All documents are available on the project website.

Station Display Posters

Alternatives Comparison

Purp	oose and Need	
Purpose and Need	Proposed Action	No Action
Update the airport facilities to current Federal Aviation Administration Standards and protect the airport from further flood damage	The Proposed Action will meet these aspects of the purpose and need.	The no action alternative would not meet these aspects of the purpose and need.

ľ		Environmental Impacts – Resource Issu	ıes
ı		Proposed Action	No Action
	Biological Resources	The Proposed Action could impact habitat of 30 Birds of Conservation Concern; however, habitat is not limited at the head of Resurrection Bay, and it is expected that birds could move to other nearby locations. Non-adverse impacts to Essential Fish Habitat are expected where instream work occurs. The Proposed Action is not anticipated to result in substantial loss of plants or wildlife, and it is not expected to impact Endangered Species Act (ESA)-listed species, their habitats, or wildlife population trends.	No change from current conditions; continued flooding would result in continued airport maintenance activities in adjacent habitats.
	Climate	The Trump administration's Executive Order titled "Presidential Executive Order on Promoting Energy Independence and Economic Growth" stated: (c) The Council on Environmental Quality shall rescind its final guidance entitled "Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews," which is referred to in "Notice of Availability," 81 Fed. Reg. 51866 (August 5, 2016).	The No Action alternative does not address the increase in the frequency and severity of flood events at the airport.
	Wetlands	The Proposed Action would have approximately 25 acres of unavoidable impacts to wetlands. It would not adversely impact municipal water source protections or substantially reduce the natural systems' ability to retain floodwater or storm water runoff. The project impacts 3.33 acres of wetlands that have a high functional ranking for providing wildlife habitat; no other important wildlife habitats would be impacted, and no secondary activities that increase impacts to airport or surrounding wetlands would occur. The Proposed Action is consistent with the State's wetland strategies.	No change from current conditions; continued flooding would result in continued airport maintenance activities in adjacent wetlands.
	Floodplains	The Proposed Action may cause a change to the Base Flood Elevation (BFE) of less than 0.41 feet (4.92 inches). No development would occur within the regulatory floodway.	No change from current conditions; flooding would continue to damage Runway 13-31.
	Surface Waters	The Proposed Action is not expected to impact water quality or contaminate public drinking water. The natural and beneficial water resource values of adjacent water bodies may be impacted.	No change from current conditions.

Alternatives Comparison

Environmental Impacts – Social and Cultural Issues

H	Enviroi	nmental Impacts – Social and Cultural	Issues
		Proposed Action	No Action
	Socioeconomics	The Proposed Action will not adversely affect socioeconomic considerations, including economic growth, physical arrangement of the community, relocation of residents and businesses, local traffic patterns, and the community tax base.	No effect
	Environmental Justice	The Proposed Action will not disproportionately affect environmental justice populations.	No effect
	Children's Health and Safety Risks	The Proposed Action will maintain the airport's ability to support medevac operations utilized by the community, including children.	Continued airport flood impacts may result in a diminished capacity to support larger aircraft utilized by medevac operators.
	Historical, Architectural, Archaeological, and Cultural Resources	A finding of "no historic properties affected" was submitted to the State Historic Preservation Officer on June 5, 2018. Concurrence was received on June 14, 2018.	No effect
	Natural Resources and Energy Supply	No impact to the Seward electric system's supply is anticipated as a result of new airport lighting generating an increase in demand. Fill material in nearby commercial operations is sufficient for the Proposed Action, and existing material sites will not require additional permits or expand existing boundaries. Airport fuel demand is not anticipated to increase.	The No Action Alternative would not result in a change to current energy consumption levels or fill material needs.
	Noise and Noise-Compatible Land Use	The Proposed Action would result in short-term increases in noise associated with construction activities. Long-term noise increases are not anticipated, as the Proposed Action will not result in more frequent aircraft operations or a significant change in aircraft type. Noise levels may increase at the bird-watching area at the southern edge of airport property but is not anticipated to exceed the threshold of significance.	No change from current conditions.
	Land Use	The Proposed Action is consistent with local zoning codes. Noise impacts on adjacent land uses are not expected to change from current conditions. Separation distances from the nearest sewage lagoon will continue to meet the 10,000-foot separation guidelines. The local landfill will remain approx. 7,600 feet northwest of the airport. The new runway length and proposed fencing will increase safety by deterring bird watchers from crossing the active air operations area.	No change from current conditions.
	Hazardous Materials, Solid Waste, and Pollution Prevention	The Proposed Action does not involve a property on the National Priorities List and hazardous waste generation is not anticipated. Construction generated solid waste is not expected to exceed available landfill capacities.	The No Action Alternative would not result in a change from current conditions.

Alternatives Comparison

	Environmental Impacts – Cumulativ	e Issues
	Proposed Action	No Action
Cumulative Impacts	 The Proposed Action could cumulatively impact the following resource categories at the head of Resurrection Bay area: Biological Resources (fish, Essential Fish Habitat, bird habitat, invasive species) Hazardous Materials, Solid Waste, & Pollution Prevention (solid and construction waste) Land Use (land development) Natural Resources & Energy Supply (utilities and natural resources) Water Resources (Waters of the U.S. and the Resurrection River floodplain) The cumulative impact of the direct and indirect effects of the Proposed Action, when added to the aggregate effects of past, present, and reasonably foreseeable future actions, is not anticipated to cause significant impacts. 	The No Action Alternative would not result in a change from current conditions. Cumulative impacts resulting from past, present, and reasonably foreseeable future actions that include commercial and industrial activities at the head of Resurrection Bay would continue.

Non-Issues Air Quality Coastal Resources DOT&PF Section 4(f) Parks and Recreation Farmlands Visual Effects Groundwater Wild and Scenic Rivers



Seward Airport Improvements Project (#Z548570000) **Alternatives Selection**

Alt. 1.1 Dropped from Further

Consideratio

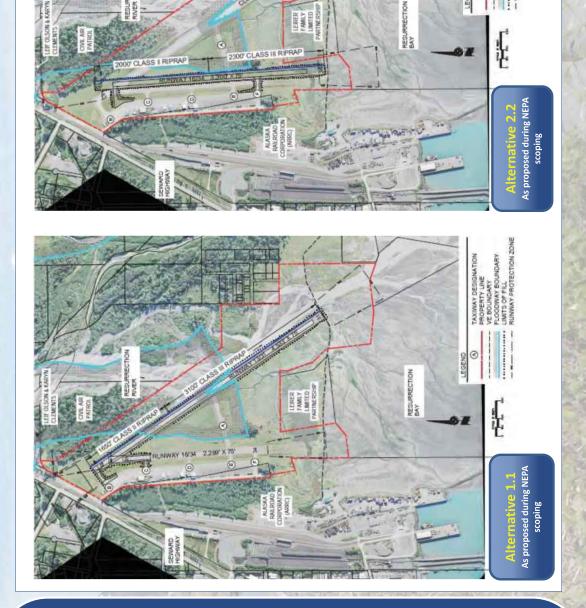
- Providing 2 feet of freeboard above 100-year flood level resulted in a 4-foot base flood elevation (BFE) increase.
- Raising Runway 13-31 an average 4.4 could result in flooding onto an additional 159 acres as compared to No-Build.
 - Development in the floodway and increase to the BFE require Flood Insurance Rate Map (FIRM) and Floodway Map modifications, and extensive hydraulic analysis, regulatory requirements, and public approval.
- Riprap below Resurrection River ordinary high water could impact fish habitat and navigability.

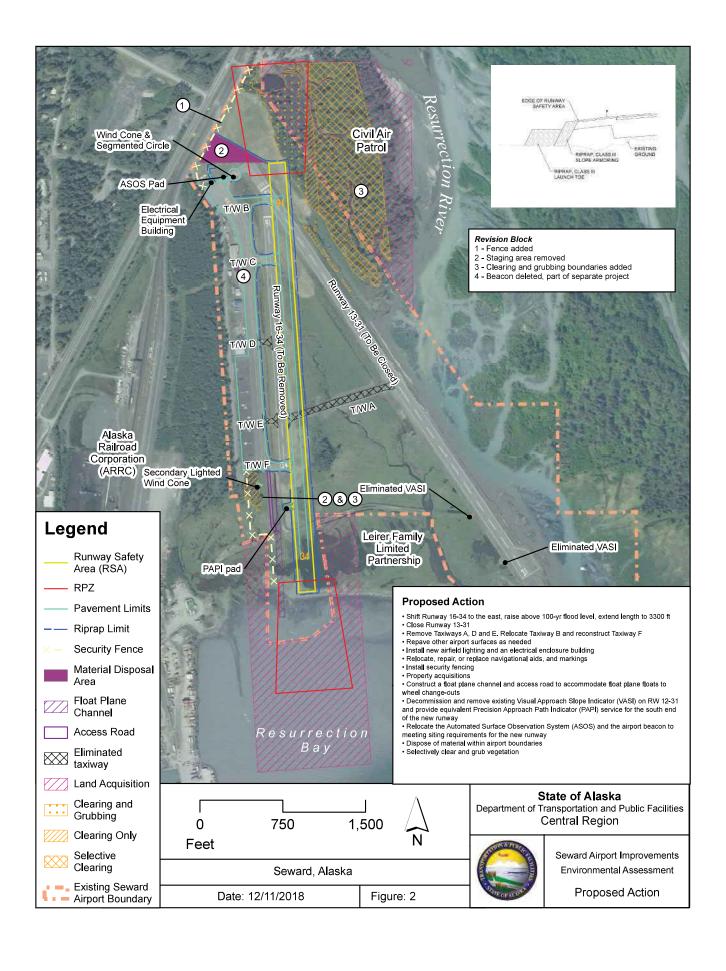
water court impact is inspired and havigability.
Floodplain impacts were considered a significant floodplain encroachment as defined by Federal Aviation Administration (FAA) Office of Environment and Energy guidance.

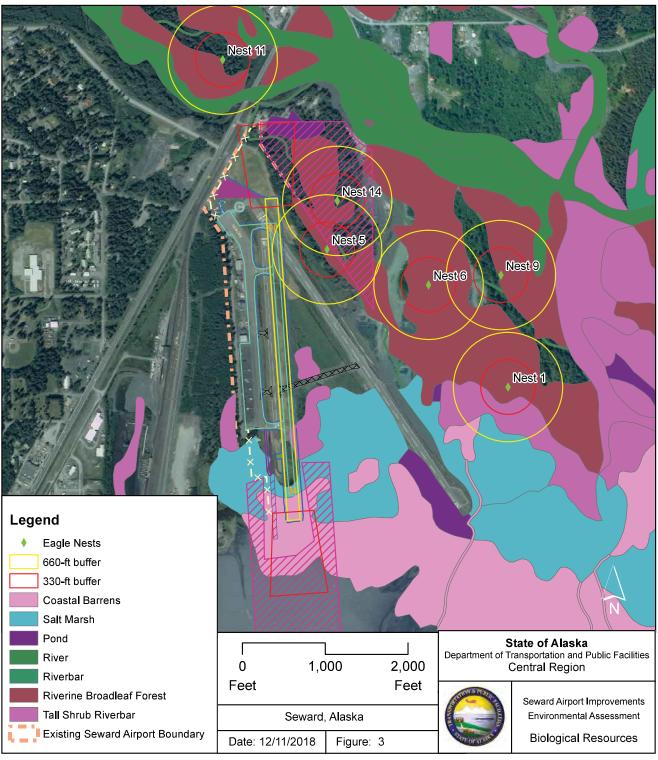
Alt. 2.2 Carried Forward

- Providing 2 feet of freeboard above BFE for Runway 16-34 could result in increase to BFE of up to 0.41 feet (4.92 inches).
 - It would allow for the eventual breaching of Runway 13-31, thereby restoring part of the original floodplain.
- No development in the floodway eliminates requirement for FIRM modification.

Alt. 2.2 does not qualify as a significant floodplain encroachment. FAA guidance states that an alternative with a significant floodplain encroachment should not be selected if a practicable alternative exists.



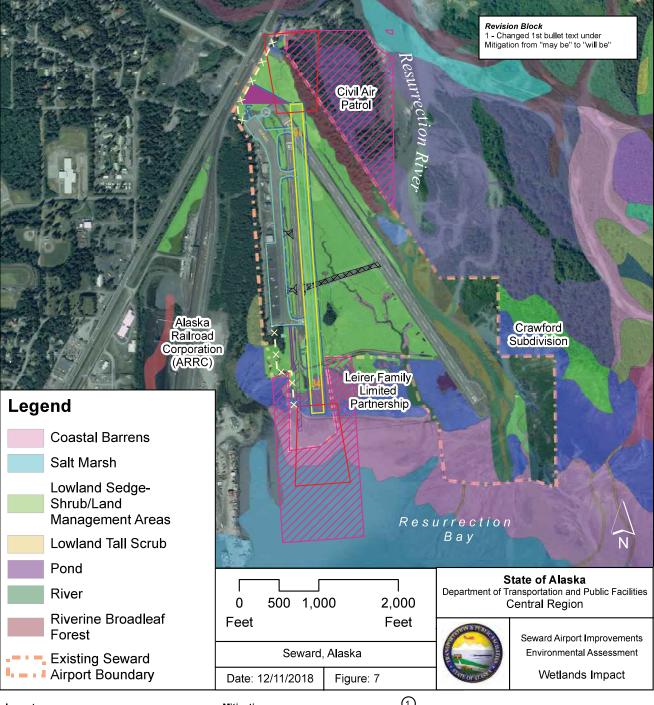




- The Proposed Action could impact habitat of 30 Birds of Conservation Concern; however, habitat is not limited in this area and birds are expected to move to other nearby locations.
- It would minorly impact Essential Fish Habitat (EFH) where instream work occurs.
- It could cause only minor loss to plants or wildlife, and it is not expected to impact Endangered Species Act-listed species, their habitats, or wildlife population trends.

Mitigation

- The Proposed Action will avoid vegetative clearing, excavation, and placement of fill on or over functional bird habitat, including the Arctic Tern nesting colony, during U.S. Fish and Wildlife Service recommended time guidelines for southcentral Alaska.
- It will mitigate impacts to EFH through Best Management Practices, including 20-foot vegetated buffers around constructed embankments that reduce sedimentation in streams.

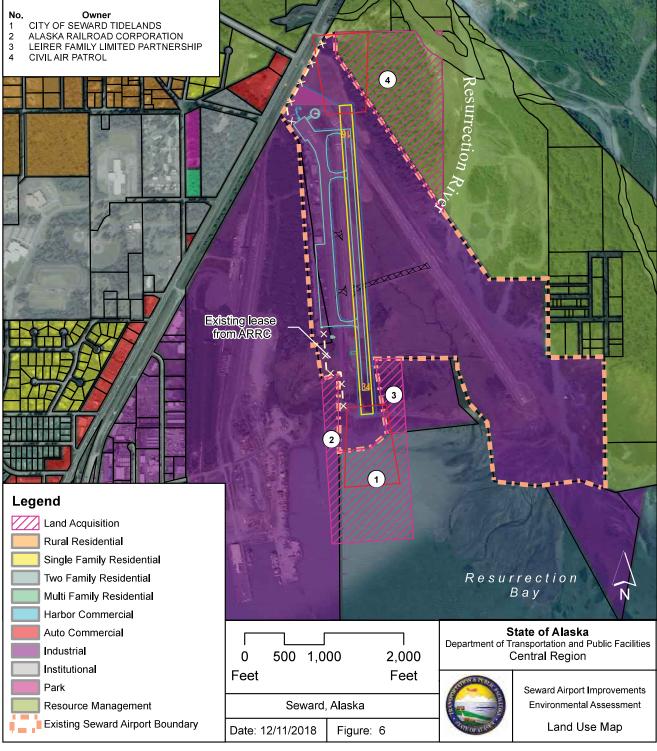


- The Proposed Action would impact approximately 25 acres of wetlands.
- The Proposed Action would not adversely impact municipal water source protections or substantially reduce the natural systems' ability to retain floodwater or storm water runoff.
- The project impacts 3.33 acres of wetlands with high functional ranking for providing wildlife habitat; no other important wildlife habitats would be impacted, and no secondary activities that increase impacts to airport or surrounding wetlands would occur. The Proposed Action is consistent with State wetland strategies.

Mitigation



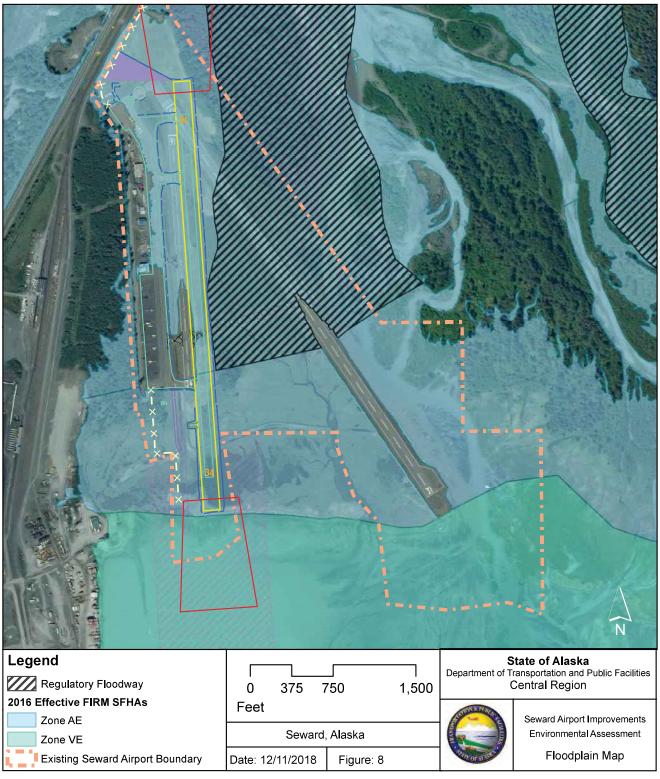
- Subject to evaluation, the total area of fill will be minimized by steepening side slopes.
- Taxiway A removal would allow hydrologic connectivity for wetland reestablishment to return natural wetland functions to an approx. 0.9-acre area.
- Taxiway D and E removal would regrade approx. 0.3 acres to provide connectivity to an infield drainage ditch important for water quality protection, which could become jurisdictional wetlands.
- A wetland area of 11.2 acres would be improved through better connectivity and hydrological functions.
- Vegetated buffers would remain at least 20 feet outside constructed embankments.
- · Material stockpiles would be located in uplands.
- Construction would require revegetation or side slope stabilization during the first growing season to protect against erosion.
- Compensation for unavoidable impacts to approximately 25 acres of wetlands will be provided per USACE Regulatory Guidance Letter ID No. 09-01, with a mitigation plan and compensatory mitigation. This may include an in-lieu fee.



- The Proposed Action is consistent with local zoning codes.
 Noise impacts on adjacent land uses are not expected to change from current conditions.
- Separation distances from the nearest sewage lagoon will continue to meet the
- Separation distances infinite realists 55...21
 10,000-foot separation guidelines.
 The landfill will remain approximately 7,600 feet northwest of the airport.
 The Proposed Action will increase safety by deterring bird watchers from crossing active air operations.

Mitigation

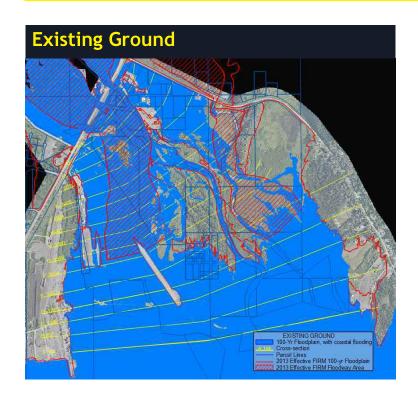
- No minimization or mitigation requirements have been identified for the Proposed Action.
- No major changes in compatible land use are anticipated.

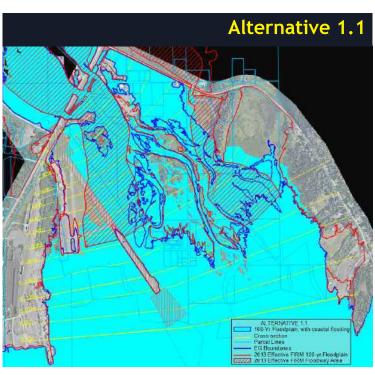


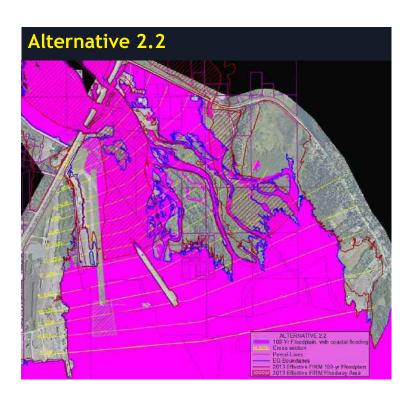
• The proposed project would result in a Base Flood Elevation Increase between 0.01 and 0.41 feet. The majority of increase is less than 0.10 feet (1.2 inches). The project does not propose development within the regulatory floodway.

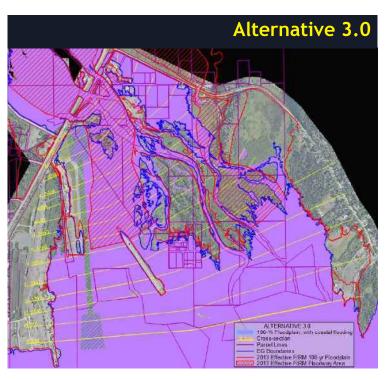
Mitigation
• Runway 13-31 will be allowed to overtop and eventually breach. This will restore part of the original floodplain. Riprap will be installed to protect the new runway.

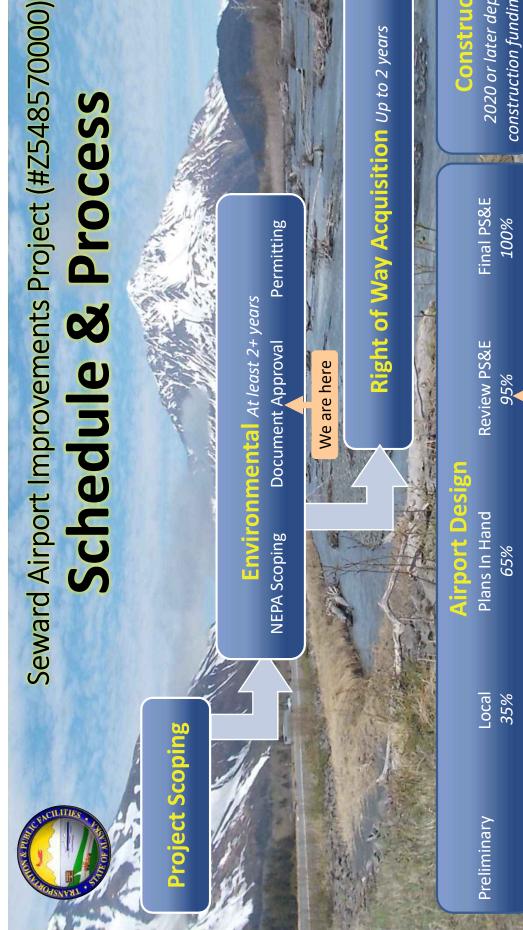
Projected Floodplain Impacts: Changes in the 100-Year Flood











construction funding availability 2020 or later depending on

We are here

This schedule is dependent upon a number of variables and is subject to change.

Public Hearing Discussion Notes

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Seward Airport Improvements Project #Z548570000 Public Hearing Discussion Notes

This hearing took place on Thursday, August 15, 2019 at 5:00 p.m. at the K.M Rae Marine Education Building located at 125 Third Avenue in Seward.

Jim Amundson (Alaska Department of Transportation and Public Facilities (DOT&PF)) said I don't have a dog in the fight, but we need to keep this conversation civil.

Barb Beaton (DOT&PF) said that DOT&PF started this project with a primary purpose. Major flooding overtopping the main runway. Maintenance activities and costs were a large issue.

She said that when DOT used the 100-year design flood and ran the flood model, Alternative 1.1 (fixing the main runway) would have resulted in the runway having 2 feet of free board. This alternative also resulted in raising the base flood elevation close to 4 feet. The main runway would need significant flood protection and about 160 acres would be flooded. Alternative 2.2 would result in way less property being impacted.

She said that under Alternative 1.1, the FEMA (Federal Emergency Management Agency) FIRM (Flood Insurance Rate Map) map would have to be revised, which would result in additional time and cost. The properties that would be flooded would have to be bought, which would take time and considerable cost. In addition, there is a Native allotment that would need to be purchased, which is a difficult and time-consuming process.

She said that the preliminary environmental impacts were shared with regulatory agencies. Alaska Department of Fish and Game had issues with the riprap along the runway needed for erosion control impacting fish. Alaska Department of Natural Resources had concerns about navigability.

Royce Conlon (PDC Engineering) said that Alternative 1.1 would have triggered an EIS (Environmental Impact Statement environmental document), which is why it was dismissed from consideration early and not analyzed at the same level as the alternatives considered in the EA (Environmental Assessment environmental document). Alternative 2.2 is the proposed alternative because it had fewer flood and wetland impacts.

Keith Gordon (Federal Aviation Administration (FAA)) said thatin the NEPA (National Environmental Policy Act) process, an alternatives analysis is completed early. An alternative is carried forward for full analysis in an EA if it is practicable, reasonable, and feasible. DOT&PF gave us their analysis which showed that 1.1 was not feasible. FAA agreed with DOT&PF's assessment and said that they did not need to carry it forward. What you (the public) are telling us in the hearing is that we should not have done that.

Commenter said that we have this runway. When there was public input sought, we said that we did not want Alternative 1.1. DOT&PF did not listen to the public.

Keith Gordon (FAA) said that DOT&PF conducted more public involvement for this project than standard for an EA. He said we can't make any decisions regarding whether this is the final alternative at this meeting.

Royce Conlon (PDC) said that this process is to determine whether to finalize the EA or whether Alternative 1.1 needs to be reassessment and the EIS process needs to be completed.

Commenter asked whether the FAA was the superior decision maker.

Keith Gordon (FAA) said yes. DOT&PF needs to get through this process in order to get funds for the project.

Commenter asked if FAA was given all the data when they made their decision to dismiss Alternative 1.1.

Keith Gordon (FAA) said that, based on the information they were given, FAA supported dropping Alternative 1.1 from the EA.

Commenter said that the Crawford Subdivision was abandoned after the 1964 Earthquake. There was a major problem with the river in 1987 when the levee was breached. The Flood Board thinks that it's a problem that was identified with private property not used and a problem caused by breeching the levee.

Keith Gordon (FAA) said that FAA has a scope of analysis and can only focus on what they do within that scope, like airports, runways, etc. There might be other answers to flooding, but they are outside their scope of analysis. They are constrained by their scope.

Renee Goentzel (DOT&PF) said that, in order to obtain the federal funding for this project, they must find a solution to a specific problem, which is the purpose and need for this project. The solution must address the purpose and need and cause the least overall harm to the environment. They must balance the impacts to wetlands, wildlife, fish and find a solution. DOT&PF carries the solution through the environmental process or NEPA in order to get the FAA funds.

Keith Gordon (FAA) said the Seward Airport is your (the public's) airport. DOT&PF is the sponsor and owner of the airport. FAA is the funding agency.

Renee Goentzel (DOT&FP) said that DOT&PF needs FAA funding.

Commenter asked what DOT&PF's standard target is for Seward's airport. What is your goal? My goal is my town's future and what we need. We need a longer runway. We need Alaska Airlines. We need this transportation link. We can talk about money for 97 people in Akutan and a cannery. We will figure out how to get the funding. Accept the reality of mother nature. We have a highway that goes under the river. We don't block it. It can be built. I know the wind. You engineers can make it work.

Keith Gordon (FAA) said that you have the opportunity to give public comment outside the room by speaking with the court reporter.

Commenter said that the river is causing the problem and it was not always there. No one considered putting the river back where it was or dredging.

Keith Gordon said that this is because another agency would need to do that, not FAA. When we met with the City (of Seward) administration and mayor earlier today, we heard that the City has looked at the potential of looking at other solutions to the problem. FAA could work with other agencies, but they (FAA) couldn't lead it. Mr. Gordon said that he heard that the City administration had been talking with the Army Corps of Engineers. There might be another solution, but the FAA doesn't have the authority. The Denali Commission might.

A commenter said there are constraints and authorities if Alternative 1.1 is moved forward. This would be an EIS. We should just move into an EIS.

Keith Gordon (FAA) said I've heard what you've said.

Renee Goentzel (DOT&PF) said that this process was done as an EA because time was limited. If an EIS is needed, it could take 8 to 10 years to complete. We may need to reevaluate the EA and might come up. The door for comments doesn't close on August 25.

Keith Gordon (FAA) said that they could decide that Alternative 2.2 is the preferred alternative and conclude the process with a FONSI. It has to be a viable decision.

A commenter asked the crowd whether anyone came to the meeting to support Alternative 2.2. This is your fourth meeting. The flood pictures were not at the last meeting. The process needs to go to an EIS. Properties can be acquired. They are empty. We should work towards an EIS.

Keith Gordon (FAA) said that this is a reality check. Your primary runway has load limits. It will continue to degrade as time goes on. DOT&PF will come and use maintenance funds for this runway when they have other airports around the State. DOT&PF didn't look at other alternatives because they were constrained because it would take too long. We need to have further discussions.

A commenter said that saying that it will take 10 years for an EIS is bull. I worked on the original NEPA wording, and it was designed for agencies to work together. You need to try and work with them. You need to look at the required No Action Alternative. The No Action Alternative is a functioning runway.

Keith Gordon (FAA) said that the No Action Alternative is doing nothing except maintenance as it exists.

A commenter asked if DOT&PF scoped the public.

Keith Gordon (FAA) said that DOT&PF did scope the project and then rescoped the project.

Barb Beaton (DOT&PF) said that DOT&PF did scoping. We scoped every major stakeholder. We scoped out what project (runway size) the community needed.

A commenter said that the public doesn't feel scoped.

Jonathan Linquist (FAA) said that in terms of the FAA definition, we forecast future or existing operations based on 500 regular uses. The existing uses at the airport don't support more than a 3,300 feet long runway. If the community wants a longer runway, they have to show that it is needed. Based on the information we have, we are constrained to a 3,300 feet long runway. Because of bureaucratic constraints, we can't fund anything longer.

A commenter asked whether the design looked at floodwaters overtopping the runway sometimes.

Keith Gordon (FAA) said that there is currently water in the ditch 2 feet from the runway. We looked at it, and the drainage over the runway wouldn't work. The substrate under the existing runway is being undermined, and this would continue.

A commenter said that we routinely get CLOMR (Conditional Letter of Map Revision) and LOMRs (Letter of Map Revision). It doesn't take more than 3 months. We would like to know who you talked with at FEMA that give you this timeline. Also, I've seen EISs done in less than 5 years.

Erica Betts (PDC Engineering) said that timing depends on whether you are filling a floodplain or a floodway. We need to remember that Alternative 1.1 wasn't dropped because of one issue.

A commenter asked how long DOT&PF had been working on it.

Barb Beaton (DOT&PF) said that they had been working on it since 2014 and that this is the fourth meeting that has been held for the project. Information on the public involvement process is in the Scoping Summary Report.

DOT&PF got information out to the public by maintaining and updating a website, keeping a mailing list, having meetings, and holding stakeholder working group meetings.

A commenter said that everyone here came to support Alternative 1.1. DOT&PF hasn't had one person in the community that supports this, and it shows that the community hasn't been involved. We are here in numbers because we didn't ask for this alternative and it isn't what we wanted. FAA needs to have a person involved in the public involvement process.

A commenter said that we have been clear that we want Alternative 1.1. The owners and the bank, FAA, didn't see Alternative 1.1 as a viable alternative. We feel that there is a juggernaut if you move forward with this alternative. How do we pause the project so the community can get what they want? We want Alternative 1.1. How do we get it?

Keith Gordon (FAA) said that FAA has regulations. DOT&PF, as the sponsor, looks at what they could be doing at other airports. They have a hurdle. They can spend funds maintaining this runway or other runways in the State.

A commenter asked whether most other airports were owned by cities.

Keith Gordon (FAA) said that most of the airports in the state are owned by DOT&PF.

A commenter said he was with Kenai Aviation. He said the issue with the airport is that it is not an instrument approach. The community needs a WAS approach with GPS so that carriers could get their approach approved. We are willing to work with you on that. There are options.

The project needs to be reexamined. Cold Bay airport has a runway where jets can land.

Keith Gordon (FAA) said that FAA needs to have a projection that is based on aviation use of the facility. You are a small community with minimal hauling needs, which makes this difficult.

A commenter said that there are challenges, but this is doable. We have gotten through other challenges before.

Keith Gordon (FAA) said that as a FAA employee, I can't exercise the same rights as you on this project.

A commenter said that we want to communicate our issues with this process and DOT&PF.

Erica Betts said that no one has worked harder to get a longer runway. Barb has gone to bat for the community, but the DOT&PF is constrained.

The Mayor of Seward said that there are a lot of issues. If we extend the project, it won't be safe for aviators. What about the north end of the runway? Who pays for the tree removal and powerline move?

A commenter said we are frustrated. Why don't we just take over the airport? We need to work together. We need Federal, State, and local support, and we need air service.

A commenter said that we feel your pressure and are thankful that you stayed to listen to our concerns. Thank you. Looking at the future, did you look at other things that are possible? You didn't contact the cruise line industry or Alaska Airlines. Please contact them.

A commenter said I looked through the scoping document, and I saw the same comments that are being said now. If this is the case, what is the likelihood that the preferred alternative would change?

Keith Gordon (FAA) said that we need to look through them again and where we are with the project. FAA needs to look at Alternative 2.2 in detail and have another discussion with DOT&PF.

FAA and DOT&PF need to look at why Alternative 1.1 doesn't work and lay out timelines for other solutions in the near term. FAA hasn't made a final decision.

A commenter said that we've already made these comments. What is different now?

Keith Gordon said that a hearing has been held, and I'm hearing what you are saying, and we will see what we can do. Obviously, we need to have more conversations. We need to lay out a timeline and why Alternative 1.1 doesn't work at our next meeting. There might be solutions.

A commenter said that it is going to take a while. We need to get with the Corps to fix the channel.

Keith Gordon (FAA) said that they need to talk with the Corps.

A commenter said that it is apparent why we wouldn't want to build an airport here. We need to do something different. When you come again, we need to know why you think the problem can't be solved. You have made tentative decisions. How much money has been spent on the project as it exists?

A commenter asked if there was the potential to suspend the process on the EA.

Keith Gordon (FAA) said that we have to get back with DOT&PF to discuss the project.

Anyone, the City, borough, public, can request that the EA process be suspended.

A commenter said that DOT&PF is moving forward with something we don't want. How do you address the issue that an alternative that we wanted was not considered? We could have been so much further forward with the alternative we wanted if Alternative 1.1 would have been carried forward.

A commenter said that when FAA returns, we don't want you to just talk about issues. We want you to bring solutions.

A commenter (Borough planner) asked why we aren't having a joint meeting with the Corps. We can't just do this project as a runway because we are constrained by the authority of who they work for. There needs to be a joint mission because FAA can't do this on their own.

You need to request a meeting and invite who you want to be there. You have to define the problem and focus the meeting on solving the problem. You can ask to formally delay the public comment period until we come back down.

A commenter said that there was commercial aviation here in the past and it could come back.

A commenter said that DOT&PF has not been fully responsive to the community. They need to find a solution. Alternative 1.1 was rejected on flawed data, and the community needs were ignored.

A DOT&PF planner said that when DOT&PF scoped this project, the goal was to give the airport a fully functioning airport in a timely manner. We looked at what was flying into Seward and what solution would provide a safe solution that fit what is flying in. Looking at how we can get from the proposed alternative to a longer runway would require reframing the solution. We weren't looking at speculative air traffic. We would need to scope or rescope.

A commenter said that we (the community) were told that we take what we are given, or else we get no funding.

Keith Gordon (FAA) said that you would need to look at the proposed future needs. Alternative 2.2 gets you a safe and appropriate airport.

A commenter asked whether a rescope was possible. I watched a life flight turnaround because the runway was too icy to land. We only have one road in and out and could be isolated because of an avalanche. You have not studied what could be the answer. Does FAA respond to emergencies?

Royce Conlon (PDC Engineering) said that we looked back 10 years after we were asked by the City to look in more detail at the demand. We talked to air carriers including Ravn. The demand for a longer runway wasn't supported. However, this process was started 5 years ago, and Kenai Air wasn't in the room then.

A commenter asked whether it would really take 8 to 10 million (dollars) for the last 700 feet of runway.

A commenter said that we just need Metco to control the river.

Keith Gordon (FAA) said that FAA is unable to fund dredging the river.

A commenter said that the community needs a mediator that could work on solving all the flooding problems.

A commenter asked whether there was a special petition to get DOT&PF to work on what we want instead of what is proposed?

Keith Gordon (FAA) said that he is constrained by his employment as a federal employee. Maybe there is a way to work with other federal agencies to get the problems solved, and FAA could cooperate with the other agencies in the process.

He said that you can rescope the project if there is a change in the baseline conditions. If you end up taking care of the problem by dredging, it would be a change in the baseline conditions. If you have another reasonably foreseeable project, then rescoping could happen as a change in baseline conditions.

A commenter said that when you come back to the community and explain why Alternative 1.1 will not work, don't come back with issues regarding why we can't move forward. Come back with how we can get around them. Seward might be able to come up with solutions. We need to understand problems with potential solutions.

Keith Gordon (FAA) said that he will meet with the (FAA) division director.

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Court Reporter Documented Testimony

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In the Matter Of:

SEWARD AIRPORT IMPROVEMENTS

PUBLIC HEARING

August 15, 2019

PACIFIC RIM REPORTING

STENOGRAPHIC COURT REPORTERS
711 M STREET, SUITE 4
ANCHORAGE, ALASKA 99501
907-272-4383
www.courtreportersalaska.com

SEWARD AIRPORT IMPROVEMENTS PUBLIC HEARING on 08/15/2019

1	CERTIFIED
2	TRANSCRIPT
3	
4	SEWARD AIRPORT IMPROVEMENTS PROJECT
5	DOT&PF / FAA Project No.: Z548570000
6	PIOJECC NO.: 2348370000
7	DRAFT ENVIRONMENTAL ASSESSMENT AND PROPOSED ACTION PUBLIC HEARING
8	PUBLIC HEARING
9	(Transcript of public comments recited directly to the court reporter
10	via the public address system)
11	
12	
13	August 15, 2019 5:00 p.m.
14	5.00 p.m.
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19	
20	Reported by: Gail Ruth Peckham, RPR
21	Gall Racii Fechiam, Kek
22	
23	K.M. Rae Marine Education Building Auditorium 125 Third Avenue
24	Seward, Alaska
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PACIFIC RIM REPORTING 907-272-4383

SEWARD AIRPORT IMPROVEMENTS PUBLIC HEARING on 08/15/2019

1	THIREV OF BIIDITO COMMENTE	Page 2		Page 4
2	INDEX OF PUBLIC COMMENTS	PAGE	1	basis. So that was prior to GPS. Everybody has one
3	PUBLIC COMMENT BY:	PAGE	2	, ,
		2	3	augmented through the FAA throughout the United
4	Keith Ham	3	4	States and greatly here in Alaska with what's known
5	Bob Linville	5	5	as a WAAS box. So it's a box that's on the ground
6	Steve Leirer	8	6	that further augments the system and makes it viable
7	Bruce Jaffa	11	/	to fly down like an ILS procedure which is beyond
8	Carrol Jaffa	13	8	most of you into Anchorage or any other place
9	Bob Reisner	13	9	within the state, so that you can provide that
10	Frederick Woelkers	16	10	day-to-day reliable service down to roughly 200 feet.
11	Brad Snowden	16	11	
12	Suzi Towsley	17	12	Now, what they've told you is that it can't
13	Tyler Pelo	19	13	be done; but it can't be done for everybody. So the
14	Michael Irving	20	14	difference is a proprietary approach, which is owned
15	John French	20	15	by the operation that flies it, comes in,
16	Jan Bukac	22	16	demonstrates the procedure, flies it with their
17	Mark Ganser	24	17	equipment. Their pilots have to demonstrate it to
18	Russ Burnard	25	18	the FAA. And that's what we're trying to propose.
19	Christy Terry	26	19	But if we get down to a smaller runway, you
20	Darryl Schaefermeyer	27	20	can never be serviced by a larger company because the
21	Joe Tougas	29	21	runway's too short for the 121 operator, such as Ravn
22	Carol Griswold	30	22	· • • • • • • • • • • • • • • • • • • •
23	Lynda Paquette	31	23	accelerated stop distance. As a 135 operator, we can
24	Sharyl Seese	32	24	do this and come in and provide service to your
25	Jim McCracken	33	25	communities, so.
		Page 3		Page 5
1	SEWARD ALASKA, THURSDAY AUGUS	Г, 15, 2019	1	Anyway, that was our hope, to be here and
2	5:15 p.m.		2	talk and bounce things off of them, but apparently
3	-000-		3	we're not going to get that forum tonight. But we'd
4	K-E-I-T-H H-A-M		4	definitely be willing to talk to you guys ad
5	KEITH HAM: Good evening.		5	infinitum and show what we can offer for your
6	Hi. I guess this is the testimony part.		6	community.
7	I'm my name is Keith, last name Ham	,	7	I think that's probably close to my three
8	H-a-m. I'm with Kenai Aviation.		8	minutes. You guys have any questions for me?
9	We heard about the project that you have	/e	9	(Court reporter offered clarification.)
10	going, over here, and the potential loss of you	ır	10	(Off-the-record discussion.)
11	runway. And we've been in the process, talki		11	-000-
	ranway. Tha we ve been in the process, take	ng with		000
12	· · · · · · · · · · · · · · · · · · ·	-	12	B-O-B L-I-N-V-I-L-E
12 13	some folks about coming over here and trying provide service, that you haven't had for years	j to		B-O-B L-I-N-V-I-L-E
	some folks about coming over here and trying	to s, to	12	B-O-B L-I-N-V-I-L-E BOB LINVILLE: My name is Bob Linville. I
13	some folks about coming over here and trying provide service, that you haven't had for years	to s, to	12 13	B-O-B L-I-N-V-I-L-L-E BOB LINVILLE: My name is Bob Linville. I live at 1205 Vista. I'm a 40-year resident of
13 14	some folks about coming over here and trying provide service, that you haven't had for years your community, flying King Air's scheduled ro	to s, to oute	12 13 14	B-O-B L-I-N-V-I-L-E BOB LINVILLE: My name is Bob Linville. I live at 1205 Vista. I'm a 40-year resident of Seward. I'm a previous pilot. I've used the airport
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13 14 15 16 17 18 19 20 21 22	some folks about coming over here and trying provide service, that you haven't had for years your community, flying King Air's scheduled roback and forth to Anchorage and charters. And what we're hoping to do is talk with the FAA, in some of the other forums, and try some of the money that's purposed to be use in WAAS facilities, which would allow schedul service to take place here. I kind of feel funny looking over there at talking to everybody out here.	g to s, to cute to get d to put led and ble	12 13 14 15 16 17 18 19 20 21 22	B-O-B L-I-N-V-I-L-L-E BOB LINVILLE: My name is Bob Linville. I live at 1205 Vista. I'm a 40-year resident of Seward. I'm a previous pilot. I've used the airport in that fashion. My son is now a pilot. He's used the airport this year quite a bit. He lives in Cordova. He's over there all the time. I also utilize wetlands and the beach. The airport's very important to me. I don't think I'm the only one in this community to say that. First off, I'd like to state this process

6 now they're not in the room.

Page 6 1 there is not on the record. It's just talk. We need 2 to have all those people, Barbara Beaton and all the 3 rest of them in here in the room listening to this 4 testimony. And all the testimony that everybody has 5 here needs to be on the record, which it is, I guess,

7 I don't feel like I've been heard from the 8 start. I've been to every one of these meetings. 9 I have written testimony, it is in the record; verbal 10 testimony is not. This is the first opportunity 11 we've had to get it into the record. If we called on 12 our own accord, it would be. Okay, I've spoken up 13 about it.

14 What I think the communities would like is 15 more analysis of Alternative 1.1. That alternative 16 would be the -- you know, just building up the 17 existing runway, is the one that I don't -- it was 18 dropped. Not from public testimony. Although 19 we've been told there's a stakeholder process, it was 20 never announced. Who are the stakeholders? I don't 21 know. I would have attended, if I had been notified. 22 It's been the runway -- runway 1.1 has been 23 the long runway for 50 years. The river's moved a 24 lot in the valley in 50 years. This whole valley

Page 8 We need to be able to land bigger planes in emergencies. That's something we can't have. The wetlands are damaged. They're used by the community. 4

(Public comment timekeeper reports that 5 three-minute time limit has been reached.)

Also it puts the aircraft noise over town, more closer to town, which is negative.

So you haven't heard it prior to this -at least you've heard it, but you didn't listen --10 we would like to reopen the conversation, the scoping part where you pick the alternative. I haven't heard 12 any reason why you can't continue --

(Public comment timekeeper reports that 14 three-minute time limit has been reached.)

15 -- why you can't continue with 1.1. You 16 can't buy the property out there that hasn't been 17 developable since 1964.

(Public comment timekeeper reports that three-minute time limit has been reached.)

That's not an adequate reason. It needs to be further analyzed.

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S-T-E-V-E L-E-I-R-E-R

STEVE LEIRER: My name is Steve Leirer, and 25 I'm not a pilot, so I can't really tell you a lot

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all that.

bowl here.

behind dikes. That's how we controlled the bedload 2 of every creek coming out of the mountains here.

25 pretty much, outside of the hills surrounding, exists

3 That particular runway also controls the bedload for the Resurrection River. That channel is 5 miles wide, so it's not like it's pinching it in any 6 way. That bedload can build up, channel up, and move 7 it back a mile to the east, which it has been. 8 That's where it was when the airport was built, and

9 it will move back and forth.

10 But what will happen if we abandon it? 11 There's a low spot in the middle. One event will 12 breach that existing runway with no asphalt on it, 13 and we're going to get the bedload right down through 14 the wetlands, right up against the new expensive 15 runway you have chosen and right out into the port 16 area, railroad and small boat harbor. And that's a 17 lot of bedload. And it's got a lot to build up, 18 before it moves to the other side of the valley, and 19 all that buildup is negative from the point of view 20 of this community.

21 Losing length of the runway -- almost a 22 thousand feet is negative -- in this community.

23 The previous gentleman who wanted to 24 provide service, we would certainly love him to do 25 that, but he needs a longer runway.

about which runway would we come in that would be the

best. But I have a little presentation here, that if anybody wanted it, I'll mail you a copy if you e-mail

4 me at scleirer@gci.net.

This gives all the reasons why we should keep the long runway and abandon the short runway. The short runway should -- if it was extended out, you're going to have planes patterning right into boat traffic, cruise ship traffic, gantry cranes and

Keeping the long runway, what it's doing right now is it's holding back the river. If it breaches that -- the river breaches that runway -and they were talking about pulling the pavement off 15 of it. And I'll tell you that would have breached 16 probably in two to three years, and I mean breached. And if there was a big flood, all that water and dirt and debris is going to come right down and dump right over on the railroad property and silt in that entire 20

If you look at the Google maps, you'll see 22 a picture of what's happening. That river comes around the end of that runway and curves and heads 24 right toward the dock and the boat harbor. That's 25 the way it wants to go. And if breaks through that

Page 10

1 runway mid-point it's going to go through there very 2 easy, and it will clean that out of there in probably 3 a couple of years. And then you're going to have a 4 big Corps of Engineers problem in dredging, trying to 5 clean that harbor up and push that river back.

What they should do is, number one, they 7 should riprap the hell out of that long runway, and 8 they can do it in stages. You don't need to do it 9 all at once, but it should be a breakwater-style 10 riprap; big boulders, put in some finger dikes over 11 time, to push that river back to the east. And then, 12 after that's done, they should build that runway up; 13 take the dip out of the center of it. Because that's 14 where it floods, because it's low there. It must 15 have sank. I'm sure they didn't build the runway. 16 when they built it in 1950/54 with the dip in it. 17 And build that thing up about four feet -- four,

18 five, six feet. 19 There's a lot of gravel around. It would 20 be cheap. They could haul it out of the Resurrection 21 River and dump it in there. And they could even 22 extend the runway and make it a little longer, make 23 it a little wider, or whatever the FAA wants or the 24 pilots want. But I think that's a major mistake of 25 abandoning that long runway. They need to keep that

1 fact, diminish it.

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else.

Their alternate, three zero, 3.0, is a pie 3 in the sky, which would extend the runway to a possible 4000 feet at tide edge. That 4000 feet would be lapping water at high tides and in the wind. That's never going to happen, in my opinion, and I think most of us that live around -- that have been

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Page 13

9 Alternate 1.1 is feasible if certain things 10 happen. The Department of Transportation, Alaska 11 Department of Transportation, has a criteria that's 12 established by the FAA for funding that they can't 13 get around easily, and that proscribes what they're 14 proposing, the 3000 feet. They have not agreed to

in Seward would agree with that.

15 the repair of the existing runway, because they don't 16 want to play in the river. They find certain

17 problems with doing things to the Resurrection River. 18 But other agencies -- for instance, the U.S. Corps of

19 Engineers -- is willing to look at and partially 20 support and are design projects that will take a 21 while.

So it's as simple as us, as a community, telling our Department of Transportation and the FAA, who's the one that's listening to this, that the

community of Seward believes that the long-term

Page 11

1 long runway and use it to keep that river back.

2 In 1950, the river ran way over miles 3 away -- or, about a mile away there, and it's going to run here for a long time till it builds up enough 5 gravel to want to run the other way.

So that is basically my point of view. 7 I'll get you a copy of this, with attachments and 8 stuff, if you'd go to scleirer@gci.net. Maybe you can use it and springboard off it with some ideas.

(Public comment timekeeper reports that 11 three-minute time limit has been reached.)

12 Thank you.

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B-R-U-C-E J-A-F-F-A

15 MR. JAFFA: Hello, my name's Bruce Jaffa, 16 Mile 35.5 Seward Highway, Moose Pass. I'm a property 17 owner in Seward, a long-time resident, a very -- a 18 pilot.

19 I'm going to keep this short, just as an 20 example. Many of you have seen things that I've put 21 out there. My position is that I think we have 4220 22 feet of runway right now, and anything less than that 23 is going backwards. We, as citizens, have asked our

24 state to rehabilitate our runway. We never expected

25 them to diminish it. The current plan, 2.2, will, in

interest of Seward is a 4200-foot runway, nothing

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C-A-R-R-O-L J-A-F-F-A

CARROL JAFFA: Carol Jaffa, again, a property owner in Seward and a long-time resident of the area.

8 Very short and sweet here, I think that it's unconscionable for an agency that works for 10 our people, the State of Alaska, to come in and tell 11 us and not listen to what we want and to try to force 12 down our throats a solution that we don't feel will 13 work, and other experts don't feel will work; not in 14 the interest of the environment and not in the 15 interest of the flying public.

So I think that this -- I'm glad that this meeting is being followed up by a more appropriate meeting by the FAA.

Thank you.

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B-O-B R-E-I-S-N-E-R

BOB REISNER: Good evening, for those of you who don't know me, I'm Bob Reisner of the Seward-Bear Creek Flood Service Area. I've been studying this problem since 2011, I've talked to many

Page 14 1 citizens. I've also been out there more than a dozen 2 times with survey equipment, also checking the 3 bedloads of the previous channels that it's been on 4 since the 1950's. 5 The only way to save our airport is not to 6 deal with the short runway and expand it -- it will

7 not work with the railway expansion plan -- the way 8 it has to work is to keep our long runway in place. 9 However, we cannot leave that river where it 10 currently is; we're going to have to mitigate out a 11 previous channel.

12 In that channel right now, that's next to 13 the long runway, we should insert an oversize culvert 14 to take care of the drainage system that DOT just 15 spent \$40 million on to run underneath that runway 16 out to that current river channel. We plug into that 17 large, oversize culvert, and we treat it like a giant 18 leach field. Okay? Like a leach line. We drill 19 holes in the top for drainage, we run screen mesh 20 steel over the top of it, and we plumb those culverts 21 right into the side of it.

22 Now, when it comes to moving the river, we 23 cannot just let it have gravel embankment on the 24 rail- -- on the airport side. Riprap will wash out. 25 With 174,000 cubic yards of gravel coming down

Page 15 1 Resurrection River -- and that's an average. Years

2 where it floods we get over 200,000 cubic yards down 3 that river. This is why the river's there in the

4 first place. DOT moved the levee in '95.

5 They took down the western levee, because 6 they were getting buried in water and gravel with 7 their equipment in the old channel. It was an act of 8 desperation. They thought a small crack in the levee 9 would help relieve the water. Well, it opened to 40 10 feet within a matter of a minute. And they saved 11 their equipment and their lives, but now we've had 12 this problem ever since.

13 Riprap will not hold on that channel. 14 We're going to have to sheet-pile it on the western 15 side of that river. There is no other viable 16 solution. And we're either going to have to dredge 17 it, excavate it, but we're going to have to do 18 regular maintenance on that river. Which the Kenai 19 Peninsula put forth a mitigation plan back in 1995,

20 and never once acted on it. Your flood service area

21 did not come into existence until 2003, and our hands 22 are tied.

23 Thank you.

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2 F-R-E-D-E-R-I-C-K W-O-E-L-K-E-R-S

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FREDERICK WOELKERS: Yeah, some of you guys

Page 16

4 know me; ladies. I've been around here close to 50

years. I flew planes in and out of this area for 25

years of that, and I'm against getting rid of two

runways and just having one, because of the wind

conditions. Our northwinds come out of the 9 northeast, the north and northwest, and they get

10 really turbulent, and the pilot needs to have an

alternate choice to try to get down on the ground.

12 And if you don't have two runways running at

13 different compass directions, you're going to kill 14 somebody.

So that's all I got to say about that. And 16 thank you.

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B-R-A-D S-N-O-W-D-E-N

BRAD SNOWDEN: Well, most of you know my name, Brad Snowden. I've been here 54 years, and I'm thinking of Seward's future, but also its present.

22 I'm looking at a 6000-foot runway. I know 23 that DOT airport science has done some work on 24 researching this, but they didn't do what I did. I

25 went down and I formed a meeting in Seattle with

Page 17 1 Holland America, the vice president, the president of

Princess and Alaska Airlines, who all agreed that

3 they'd use that runway, if we had a 6000-foot runway,

4 and get that traffic off the highway that those motor

5 coaches bring up and down. And it's growing; it's a

safety issue. But more importantly, as its

7 cruise-ship industry grows, as its tourism grows, and

8 as our winter doesn't change businesswise, it's

9 Seward's future.

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That being said, the demand is there. Just ask the customers, the potential customers if they'd use it. They all agreed they would.

The records out there. A 6000-foot runway 14 is what we really need. And I'll just leave it 15 there.

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S-U-S-I T-O-W-S-L-E-Y

18 SUSI TOWSLEY: Hi, everybody, I'm Susi 19 Towsley, City Council member, long-term resident of 20 Seward.

A few things: First, I'm disappointed that 22 we seem to be getting a meeting that's format doesn't 23 match what we asked for. I'm heartened to hear that 24 we're going to be able to have everybody sit in one 25 room and have a conversation here after this part

Page 18 of the -- of the proceedings are over. 2 But I also want to remind everybody that 3 these nice ladies are just doing their jobs and 4 probably had no idea they were going to be facing so 5 much frustration and anger. Which is totally justified, because I'm feeling it, too. So, if we 7 can remember to just be civil to one another, as we 8 move forward, I would encourage that. 9 are decades, probably hundreds of years of experience 10 with that airport, in this room, that know far better 11 than me to best manage this, but it's clear that this 12 community isn't being heard as far as what our needs 13 are and what our wishes are with that asset at the 14 airport, and so I support Alternative 1.1; I think 15 most people do. I think it would also be a good idea 16 for us to explore ways for us to take local control 17 of the asset itself. And I'm all of ears, waiting to 18 hear all the knowledge that I know exists in this 19 room, far beyond what I have. And thanks for 20 everybody coming tonight. I hope we can get to the 20 21 part where we're actually in one room having 21 22 conversations about the best way to solve some of 23 these issues pretty quick. 23 24 Thanks. 24 25 /// 25

-000-1 2 M-i-c-h-a-e-l I-r-v-i-n-a 3 MICHAEL IRVING: Mike Irving, a resident of Seward, airline transport pilot, type 2 heavy through 5 heavy category aircraft: C.F.I., Double I, MEI, Gold Seal flight engineer, advance ground instructor. 7 I've got 6000 hours in a 135 and 9 in a 121. 8 It's economically shortsighted to have 9 anything less than 4200 feet in here. That's 10 accelerate to stop on the balanced field for a 737 is 11 4100 feet under special ops, and they'd prefer 5800. 12 And as far as the instrument approaches go, if they'd realign the runway a little bit, so that it was going 14 up the valley, they could drop the minimums a lot. 15 And -- all I got. 16 -000-17 18 19

J-O-H-N F-R-E-N-C-H JOHN FRENCH: Hello, I'm John French, resident of Seward, 20-year residence of Seward. I'm not a pilot. I am a former member of the Historic Preservation Commission. I've served in a variety of capacities around this town, but I think most of my concerns were reflected by Bob Linville's original comments.

I think that the long runway, the 1- -- the

As I was talking before the hearing itself

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-000-T-Y-L-E-R P-E-L-O

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TYLER PELO: Tyler Pelo; residence here for 12 years; born and raised on the Mississippi; filled hundreds of sandbags; heavy equipment operator, and yeah, I'm also in favor of 1.1. There's engineering solutions that will make that work.

I've read mixed things from the State about the Army Corps of Engineers. I've read originally 10 that they were in favor of 1.1.

11 I understand that the State is not in favor 12 of dredging, yet there's talk of a floodplain access 13 area that would require dredging as routine

14 maintenance, so I'm not sure what that's all about. 15 The State is also stating there's less

16 salmon impact. I've personally been out there with 17 Fish and Game and documented anadramous streams and 18 salmon spawning areas that will be affected to a 19 greater degree by filling in the wetlands with

20 Alternative 2.2, not to mention the negative effects 21 on migratory birds and on recreational users.

22 Thank you for giving the community 23 residents an opportunity to voice opinions on this

24 matter.

25 /// option 1.1 being eliminated early was shortsighted. I think the decision to do an Environmental Assessment rather than a full EIS is shortsighted. I think it's important to look at all the options.

6 started, there is a number of historic, potentially 7 historic items that are there. It was pointed out during the testimony here already. The runway, itself, is fifty years old, which makes itself a 10 historic asset. And you know, they -- you look at 11 early Russian maps, there's a number of Native 12 villages that dawned around the northern end of Resurrection Bay there. Yes, they'd be hard to find, 14 but that doesn't mean you shouldn't prepare to try to 15 deal with them, if you do happen to find them. It's 16 called "opportunistic discovery." So I think that's 17 important. 18

I don't support any abbreviation of Section 1.06 for that reason, which looks at the historic and cultural importance of the area.

But as I said, my biggest concern is 22 maintaining a long runway, the longer the better. And, you know, that site's prone to flooding. We all 24 know that; we all talked about it. What we haven't 25 talked about is the fact that Seward has already been rather than better.

11 I'll stop there.

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Page 22 1 experiencing high-tide, storm-surge situations at 2 some times of the year, and it's bound to get worse

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habitat in this geographic area. I don't believe there's anything else around where birds can take

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refuge, during winter and fall gales, within a

fifty-mile radius, from what I heard. I don't know

5 if that's accurate or not, but from what I've seen

out there while duck hunting, there's numerous

7 species, probably numbering in the tens, maybe 50

species -- I don't know; you'd have to talk to the

SeaLife Center people about that -- but quite a

10 significant amount of wildlife uses this wetland habitat, and it would be a shame to destroy it 11

12 without exploring other alternatives.

And, yeah, I'm in support of revisiting 14 Alternative 1.1.

Thank you.

M-A-R-K G-A-N-S-E-R

MARK GANSER: Mark Ganser, I am a pilot. I do have a plane out at the airport, but I'm here

20 representing the Seward-Bear Creek Flood Service Area

21 as their board chair. And we do not, as a board, 22 have a position on which alternative should be

23 chosen. However, we believe that we wouldn't be in

24 this position if mitigation had been taken, as had

25 been suggested a long time ago, which is

Page 23

1 build through the marsh, you would get blown directly 2 off of it from the north winds funneling through old

And for that reason I think we need to talk

going to flood again the next time we have a serious

And that's probably just about my time, so

JAN BUKAC: My name is Jan, Jan Bukac, an

5 about not only maintaining the long runway, but

building up the grade of it, so it's significantly

7 higher than it is currently. Otherwise, it's just

storm surge coming from the south.

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J-A-N B-U-K-A-C

15 eight-year resident of Seward. I'm not a pilot.

19 Life Flights in the winter time. I talked to a pilot

21 prevailing north winds in the winter.

23 hunting out there in the fall, and I feel how

20 on numerous occasions about the airport and our

I'm in support of revisiting Alternative 17 1.1. And my main concern that I have, which I have

18 not heard being addressed, is the Providence Hospital

Again, I'm not an expert, but I go duck

24 strongly the wind can blow. And from what this pilot

25 has told me is that the new runway, that they plan to

3 Exit Glacier, and basically a Life Flight could not

land in the wintertime if we had a gale and the

5 runway was iced over.

6 My wife is an emergency physician in the 7 hospital. She's told me of accounts where they had 8 to close the present runway because it was iced over in the winter, and they couldn't get people out for 10 Life Flight and had to drive via ambulance. So the 11 present runway is good, but still, when it's iced 12 over, they still have problems.

13 This runway gets even more wind from the 14 perpendicular, and planes could potentially be blown 15 off. Again, I'm not an expert, but that's my 16 understanding.

17 So my worry is, if it was my kids that 18 needed Life Flight in the wintertime, and they couldn't get it because the runway which is currently 20 being used would not be active anymore, then I would 21 have a pretty significant problem with that.

22 And then, my second concern would be the 23 waterfowl impact that the new runway would potentially have, by building through the wetland 25 marsh. This marsh is a very important rookery

rechannelizing the river, keeping the river to the 2 east. And that's what the board has been

3 recommending.

> So to protect the investment that's made, whatever investment is made, there's got to be maintenance, and that has to be addressed or we'll be back here again.

> > Thank you.

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R-U-S-S B-U-R-N-A-R-D

RUSS BURNARD: Hi, my name Russ Burnard.

I'm a 32-year resident of the Seward area, been 13 flying out of this airport for about the last 20-some

14 years.

As has been said before, the reason for 16 those two runways is the variable winds, so you have an option, for safety reasons, flying in and out of 18 this airport.

We've all had a consensus that this whole 20 problem could have been solved a long time ago, if we could dredge below the airport and remove the 22 accumulated gravel that causes the water to back up, when storm surges can't run out like they should. And in reality it only hinders our use of the long 25 runway a week or so out of the year.

Page 26 So everybody says they can never get --2 everybody from the State says they can never get 3 permits to dredge below the airport. I don't see why 4 they couldn't get permits to dredge below the airport 5 when you can dredge above the airport with a gravel 6 pit right there. So they would use the gravel to 7 raise a runway from the gravel pit above the airport 8 rather than remove the gravel from below the airport 9 and eliminate the problem entirely. 10 To spend millions of dollars to extend the 11 one option, change it to one option, as far as the 12 wind direction goes, to me makes no sense whatsoever. 13 Safetywise, we need two runways, and one long one to 14 bring bigger aircraft in here when we need them.

15 If you were to eliminate the gravel below, 16 there would be no need to put money into where it 17 floods, because it wouldn't flood anymore, if you 18 opened up the area below.

19 That's it.

-000-20

C-H-R-I-S-T-Y T-E-R-R-Y

21 22 CHRISTY TERRY: Christy Terry. I'm here to 23 make note on the record that the Port and Commerce 24 Advisory Board for the City of Seward voted and

25 supports Alternative 1.1, and those comments have

1 been submitted in various formats, to written, 2 providing comments online.

3 And I also want to state for the record 4 that the community understood this meeting to be 5 vastly different, where we would have one organized 6 presentation and be able to comment as a body. And 7 that was not only discussed at a council meeting, 8 discussed by administration, but also communicated at 9 various boards and commission meetings. And that was 10 the community's understanding. And since that did 11 not happen, and if it does not happen tonight, there 12 should be a second meeting, because that's what the

13 community expects. 14 Thank you.

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D-A-R-R-Y-L S-H-A-E-F-E-R-M-E-Y-E-R

DARRYL SHAEFERMEYER: I, too, came to this

18 meeting expecting a much different format. I'm not

19 surprised. I've seen this kind of thing happen to

20 this community, time and time again, when it comes to 21 being subject to this kind of process.

22 That said, I will just tell you that I've

23 been here a long time, nearly 68 years, and I have 24 seen all kinds of emergencies, where that last --

25 that longer runway was absolutely necessary and

1 essential.

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2 We had a flood here in '86, isolated the town. A lot of traffic had to go over that long runway. It would have been an absolute disaster 5 here, if we hadn't had that runway. 6

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I've been here during a chemical spill. The whole town was isolated. We were actually working to try to figure out how to evacuate this town by air. It was that critical. The only runway 10 that could have even remotely provided that resource 11 was the long runway. 12

We have no other options, folks. The State of Alaska has got to get that message.

14 I have a personal story about that long 15 runway. When my oldest son was born, within a few 16 days of being born, he had to be medevac'd out of 17 here. The only thing that we could get him out with 18 was a Learjet. That was the only capable aircraft 19 that could come in at the time, and that long runway 20 was necessary. 21

The doctors told me that if he had been 22 five minutes later in arriving at Providence Hospital, Anchorage, he would not be here today.

My son is not here in the audience with me, 25 but he is here in town visiting me. He's just about

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38 years old now. 2

Anyway, I can see no other option. A shorter runway is going to isolate this town and be of no service. That's my considered opinion, and I think I have a lot of years of knowledge behind that.

Thank you.

-000-

J-O-E T-O-U-G-A-S

JOE TOUGAS: Joe Tougas, Seward resident. I'm a business owner and building a new shop in pretty close proximity to the airport.

Seward's become, and has been for a long 13 time, kind of a ship-repair Mecca for Southcentral Alaska. We've got, between my company and several 15 other companies in town, a lot of specialty in responding to marine disasters, from groundings, like the Kulluk that ran aground in Kodiak, the Exxon Valdez, and then a lot of smaller-scale ones that happen regularly around the state.

We routinely charter flights out of Seward 21 to get our trained, specialized people out of Seward 22 and to Western Alaska, the North Slope, Southeast and -- out of Seward. And it's, you know, done in minutes of you calling people, getting flights arranged, you're packing gear, you're loading them on PUBLIC HEARING on 08/15/2019 Page 30 1 a flight. You're kind of, "Ah, that should fit and everybody I've spoken to -- and somebody can raise 2 2 that should fit; that's not gonna fit," and, you their hand and go, "No, you're wrong" -- but the DOT 3 know, being able to bring in larger aircraft, fly people have told me, "If you want 1.1, you need to 4 more equipment in and out, doing what we're doing own the airport." 5 would be great. As well as the river definitely 5 So I'm looking for -- it's five after needs to be maintained and addressed regularly. 6 6:00 -- I'm looking for this wrapping up, and then 7 -000-7 let's get on that discussion. Because we all know 8 C-A-R-O-L G-R-I-S-W-O-L-D what we want. I haven't heard anybody say anything 9 CAROL GRISWOLD: Carol Griswold, a longtime other than I.I. Well, if we want 1.1, then we got to 10 Seward resident. 10 own the airport. Let's get on to that. 11 11 There was a very timely article in the ADN Thank you. 12 12 this morning, if you read it, where the Russia jet -000-13 collided with birds and made a safe but emergency 13 S-H-A-R-Y-L S-E-E-S-E 14 landing in a cornfield. Positioning this new 14 SHARYL SEESE: I'm Sharyl Seese, and I've 15 alternate runway right next to that pond will perhaps 15 been here for 36 years, and I am on the City Council 16 16 dramatically increase the danger to pilots and now. 17 passengers. There are swans, large birds; there are 17 But I have had the use of that airport 18 geese, large birds; lots of Arctic terns, lots of 18 several times, I have lots of friends who have 19 gulls. This is a very importantly habitat, that planes, and I am really in support of Alternative 20 right now the planes are farther back and they go 20 1.1. And as Ms. Paquette said, maybe this is the 21 over these birds. Pushing that airport runway closer 21 time that we take care of our own airport and 22 to the estuarian pond will put that danger much 22 purchase it and maintain it ourselves, so that we can 23 closer, and I think it's an unacceptable risk. 23 keep our emergency stuff, have the runways because of 24 24 the air, which way the wind blows. It's very I, too, have submitted many comments on the 25 draft EA. I found that the data supporting their dangerous out there, if we don't have an alternative. Page 31 1 findings was deeply flawed. And I don't have time to 1 go into it, but I was very disappointed with their 2 purchasing the airport. 3 research. And I would like to support Alternative 3 Thank you. 4 4 1.1. -000-5 5 I appreciate everyone being here. I think 6 6 we have had a lot of excellent discussions and look forward to what we all expected would happen, a 7 give-and-take discussion with lots of ideas being 8 9 generated and shared as a group. 9 10 10 Thank you. 11 -000-

I support 1.1, and also, possibly J-I-M M-C-C-R-A-C-K-E-N JIM MCCRACKEN: I'm Jim McCracken. I'm a long-time resident of Seward, 70-some years. I have a commercial instrument ticket, been flying since '70, 1970, most of it here in Alaska. The long runway needs to be looked at 11 closer. The problems that are causing the flooding 12 was committed in '87 -- '86, '97, flood work that was done in the Resurrection River that's outside the bounds of this project, and that was formatted by the 15 contractor. The dike was breached. And the FEMA 16 Region 10 was the participating agency that did 17 that -- or, was responsible for the contract. 18 The major problem with the long runway is 19 the flooding that occurs. The project managing 20 engineer stated in the -- in the meeting minutes ago 21 that private property was also a problem to the east 22 of the runway. That is -- Crawford Subdivision is 23 the primary one there. Crawford Subdivision was 24 abandoned after the 1964 earthquake -- I was here for

25 the 1964 earthquake -- and it has not been utilized

PACIFIC RIM REPORTING

L-Y-N-D-A P-A-Q-U-E-T-T-E

18 used to fly in and out of the airport with passenger

21 DOT to do what they're going to do.

LYNDA PAQUETTE: Hi. Linda Paquette.

When I moved here 22 years ago, F.S. Air

service, and we lost that, and now we're losing more

20 things, more ability, if we move forward and we allow

I've talked to a lot of people tonight

23 about this, and there's really only one solution:

24 Seward must take ownership of the airport, if you

25 want Alternative 1.1. From what I can tell, from

I've been in the Seward area for 22 years. I'm

15 also on the Board of Commerce Authority Commission

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16 for the City.

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Page 34 1 since. 2 There are other concerns. I know that the 3 limit of 12,500 pounds, for aircraft using the 4 runway, is interesting, because when the President 5 was here with his Ospreys, they'd come in at 40-plus 6 thousand pounds apiece. All three of them landed, 7 taxiied around, took off, both in practice day and 8 the day, September 1st, when he was here, and there 9 wasn't a problem. 10 In the winter, when the runway is frozen, 11 it would seem logical that the 12,500-pound limit 12 could possibly be reviewed to be able to use other 13 aircraft in here, when the runway is frozen, and 14 theoretically, it's stabilized then. 15 The long runway needs to be looked at 16 closer. I know it was evaluated, apparently, on the 17 environmental concern, and it was set aside, but as I 18 mentioned previously, I think the environmental 19 problem was committed primarily by the contractor 20 working for FEMA that was approved by FEMA. It's 21 outside the scope of this project, but that's the 22 contributing factor. 23 Thank you. 24 25 Page 35 1 CERTIFICATE I, GAIL RUTH PECKHAM, Registered Professional 2 Reporter and Notary Public duly commissioned and 3 qualified in and for the State of Alaska, do hereby certify that the foregoing public comments were taken stenographically before me and thereafter reduced to typewriting by me. 5 That I am not a relative or employee or attorney or counsel of any of the parties in these 7 proceedings, nor a relative or employee of such attorney or counsel or agency, and that I am not financially interested in said proceedings or the outcome thereof IN WITNESS WHEREOF, I have set my hand this 30th 10 day of August, 2019. 11 12 13 14 GAIL RUTH PECKHAM, RPR Notary Public, State of Alaska 15 My commission expires: 3/26/22 16 17 18 19 20 21 2.2 23 24

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PACIFIC RIM REPORTING
907-272-4383

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Hearing Written Comments

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Please share your thoughts and ideas below regarding the Draft Environmental Assessment or the project in general. Place this sheet in the comment box or submit your thoughts later (by August 25, 2019, please) to the address below. Name (optional): Address (optional): mundsens be

Please provide your comment today or send written comment (by August 25, 2019, please) to:

Robin Reich, Public Involvement Coordinator, Solstice Alaska Consulting, Inc., 2607 Fairbanks Street, Suite B, Anchorage, Alaska 99503 or via email to solsticeak@solsticeak.com.

Please share your thoughts and ideas below regarding the Draft Environmental Assessment or the project in general.

Place this sheet in the comment box or submit your thoughts later (by August 25, 2019, please) to the address below.



Name (optional): KARL VAN BUSKIEK
Address (optional): 1904 FORGET MR NOT SEWARD
SUPPORT THE PRESERVATION OF THE CURRENT
RUNWAYS OR EXPANSION NOT THE REDUCTION
OF RUNWAY (1814 CT4.
THIS DEBOLING OF THE RIVER AND ARMORING
OF THE RUNWAYS SEIEMS REQUIRED.
RAISING THE RUNWAYS WOULD ALSO SEEM
NBBBBB.
LOSS OF RUNWAY LBNGTH IS NOT
ACCEPTABLE FOR SEWARD.

Please provide your comment today or send written comment (by August 25, 2019, please) to:

Robin Reich, Public Involvement Coordinator, Solstice Alaska Consulting, Inc., 2607 Fairbanks Street, Suite B, Anchorage, Alaska 99503 or via email to solsticeak@solsticeak.com.

Please share your thoughts and ideas below regarding the Draft Environmental Assessment or the project in general.

Place this sheet in the comment box or submit your thoughts later (by August 25, 2019, please) to the address below.



Name (optional): Stephanie Presley
Name (optional): Stephanie Presley Address (optional): 34009 Drlander, Seward
As a member of Seward Cril Air Patrol,
I am support of a 4,000 foot long runway.

Please provide your comment today or send written comment (by August 25, 2019, please) to:

Robin Reich, Public Involvement Coordinator, Solstice Alaska Consulting, Inc., 2607 Fairbanks Street, Suite B, Anchorage, Alaska 99503 or via email to solsticeak@solsticeak.com.

Project Website: www.dot.state.ak.us/creg/sewardairport

Please share your thoughts and ideas below regarding the Draft Environmental Assessment or the project in general.

Place this sheet in the comment box or submit your thoughts later (by August 25, 2019, please) to the address below.





Name (optional):

Ann C. Ghicadus

Address (optional):

12362 King Arthur Dr. Seward, AK 99664

I support Alternative 1.1

Arunway through the marsh will

destroy kird habitat that exists no where

else in Seward. It will also create a

hazardous situation for air travel

through kird strikes as well as keing

positioned inappropriately for prevailing

winter winds.

Please listen to the majority of Seward

citizens that support 1.1. Thank you

Please provide your comment today or send written comment (by August 25, 2019, please) to:

Robin Reich, Public Involvement Coordinator, Solstice Alaska Consulting, Inc., 2607 Fairbanks Street, Suite B, Anchorage, Alaska 99503 or via email to solsticeak@solsticeak.com.

Please share your thoughts and ideas below regarding the Draft Environmental Assessment or the project in general.

Place this sheet in the comment box or submit your thoughts later (by August 25, 2019, please) to the address below.



1	Name (optional):	Annes Collusone
-	Address (optional):	12628 SAlmon CR. RD
	loulo like	To Keep long Runway, OR
		HE DROPOSEL
		,

Please provide your comment today or send written comment (by August 25, 2019, please) to:

Robin Reich, Public Involvement Coordinator, Solstice Alaska Consulting, Inc., 2607 Fairbanks Street, Suite B, Anchorage, Alaska 99503 or via email to solsticeak@solsticeak.com.

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Please share your thoughts and ideas below regarding the Draft Environmental Assessment or the project in general.

Place this sheet in the comment box or submit your thoughts later (by August 25, 2019, please) to the address below.



Name (optional):		CLAPA	
Address (optional):	p-0-804 209	4 STUDIED K	of agreed
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HEAR MORE A	20M THE (Community	,
HEAR MORE FR ESPECIALLY SIM	UCE THE	LAST PRE	SENTATION

Please provide your comment today or send written comment (by August 25, 2019, please) to:

Robin Reich, Public Involvement Coordinator, Solstice Alaska Consulting, Inc., 2607 Fairbanks Street, Suite B, Anchorage, Alaska 99503 or via email to solsticeak@solsticeak.com.

Project Website: www.dot.state.ak.us/creg/sewardairport

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Pre- and Post-August 2019 Hearing Comments

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Pre- and Post-Hearing Comments (Telephone, Email, Mail)

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From: Brad Snowden <brad@seward.net>
Sent: Saturday, August 3, 2019 10:08 AM

To: Solstice AK

Cc: brad@seward.net; bradsnowdenalaska@gmail.com

Subject: Airport for Seward

Attachments: City Counsil Letter - Airport.doc

Worth considering a larger runway helping make our Highway safer in the summertime when the heaviest demand is upon us!

If we can span the river with a highway we can span it with a runway!

This is Seward's future!

Brad Snowden P.O. Box 670

Seward. AK. 99664

Brad@seward.net

bradsnowdenalaska@gmail.com

Brad Snowden Hotel Seward

221 5th Avenue, Seward Alaska

Airport Expansion

November 1, 2004 Report to the people of Seward

On Friday, October 29, 2004, at 2:00 pm, a meeting was held at Alaska Airlines Corporate Office, Seattle, WA. In attendance at the meeting were:

Don Garvett, Vice President, Alaska Airlnes Charlie Ball, President Princess Tours David E Beagle, Vice President Holland America Brad Walker, Director Leisure Marketing, Alaska Airlines Brad Snowden, Owner/Manager Hotel Seward

Telephonic Attendees:

Vanta Shafer, Seward Mayor
Phil Shealy, Seward City Manager
Brad Garland, FAA/Airports
Mark Mayo, Transportation Planner, State Of Alaska
Todd VanHove, Area Planner, DOT, State Of Alaska Airport Design

Subject discussed was the potential of Alaska Airlines flying their jets and landing in Seward, for the purpose of transporting tour ship passangers.

- Don Garvett stated that Alaska Airlines would haul passengers out of Seward if there were an airport that could handle their jets.
- Chralie Ball and Dave Beagle would use that airport to haul their passengers if the cost was comparable to Anchorage or less.
- Brad Garland expressed support.
- Vanta Shafer felt that Seward would support this airport.
- Todd Vanhove stated that there would be some difficulties.
 - a) The physical characteristics of the airport.
 - b) Establishing the importance of the expansion to rise up on the State's list of airport projects.

In conclu	usion	, I find	that if	Seward	would	like to	see o	continued	cruise	ship	docki	ings in
Seward.	And	numero	us pos	sibilities	that it	would	be in	Seward'	s best	intere	st to	pursue
this furth	ner.											

Sincerely,

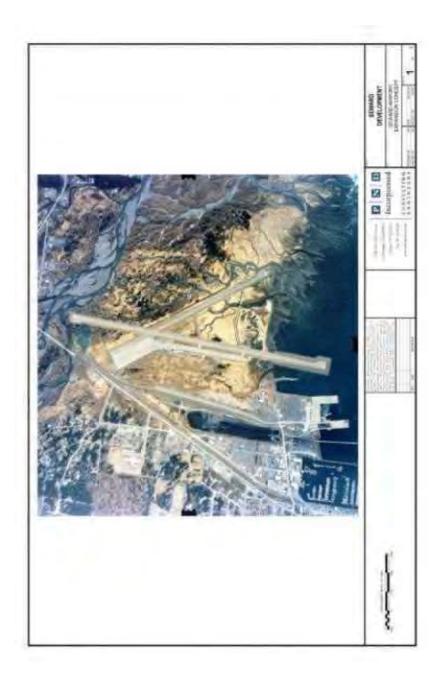
Brad Snowden

From: Brad Snowden <brad@seward.net>
Sent: Sunday, August 4, 2019 8:12 AM

To: Solstice AK; brad@seward.net; bradsnowdenalaska@gmail.com

Subject:Seward Runway proposalAttachments:Airport Runway (2).jpg

Here is a sample 6000 foot runway.



From: Tim Dillon <tim@kpedd.org>

Sent: Monday, August 12, 2019 10:53 AM

To: Olivia Cohn

Cc: Brennan Hickok; Scott Meszaros **Subject:** Fwd: Seward Airport Rehabilitation.

Attachments: Bruce Jaffa SWD Letter 0.28,2019 Final.docx; PACAB laydown, Information reduced

size.pdf

Good morning Olivia. Thank you for chatting this morning. Below is Bruce's contact information.

Begin forwarded message:

From: "Bruce Jaffa" < bruce@jaffaconstruction.com >

Subject: Seward Airport Rehabilitation. Date: July 28, 2019 at 3:40:11 PM AKDT

To: "'Mike Insalaco'" < "Denny Hamilton" < "Dennis Perry'" < "willow hetrick" < "Cindy Clock"

director@seward.com, tim@kpedd.org, <a href="mailto:tom.george@aopa.org<">tom.george@aopa.org, "'Delbert Dunham'"

< kevin.dunham19@gmail.com >, "Carol Griswold" < griz@yahoo.com >,

"'<u>mailto:director@alaskaaircarriers.org</u>", <<u>russmaddox@yahoo.com</u>>, <<u>info@alaskaairmen.org</u>>,

<<u>tom@tmtalaska.com</u>>, <<u>Joe@catalyst-marine.com</u>>, "'Adam White'" <<u>adam.white@alaskaairmen.org</u>>

Cc: "'Brenda Ballou'" < bballou@cityofseward.net, "'Christy Terry'" < TerryC@akrr.com, "Scott Meszaros" < smeszaros@cityofseward.net, "'David Squires'" < dlsquires@cityofseward.net, "'David Squires'" < smeszaros@cityofseward.net>, "'David Squires'" < smeszaros@cityofseward.net>), "'David Squires'" < smeszaros@cityofseward.net), "'David Squires' < smeszaros@cityofseward.net), "'David Squires' <a href="ma

"'scott_leathard@sullivan.senate.gov:"", "'Boyle, Garrett \(Murkowski\)"

<Garrett Boyle@murkowski.senate.gov>, <sen.peter.micciche@akleg.gov>,

<Represenative.Ben.Carpenter@akleg.gov>, <cpierce@kpb.us>

I am sending this group mail to stakeholders involved with the Seward Airport. This includes residents, pilots, aviation groups, business, recreation and government groups. The letter should explain my request as this intended to allow a "show of hands" for the August 15th FAA/AKDOT hearing in Seward. The PACAB laydown has additional background information that describes how we got here. The Seward City Council has unanimously affirmed the action proposed by PACAB and directed the City Manager to make appropriate Agency contacts regarding this issue. It is important to provide a community voice to our agencies so that their planning actually benefits the community in a meaningful way. Feel free to contact me with any questions. Hopefully we will see you or a representative at the August 15th.

Regards,

Bruce Jaffa
Quality Control Manager
Jaffa Construction, Inc.
907-224-8002
907-240-0362 Mobile
bruce@jaffaconstruction.com

Bruce Jaffa

PO Box 107 Moose Pass, Alaska 99631 907-288-3175 Bruce@JaffaConstruction.com

Seward Airport Stake Holders

July 28, 2019

I have previously discussed the status of the Seward Airport (SWD) rehabilitation with each of you and asked for your organization's participation in an effort to maintain the two runways: 13/31 at 4,240 LF and 16/34 at 2,279 LF. They currently provide reasonable approaches to small and medium size aircraft in challenging wind conditions. This is Alternate 1.1 that was rejected by AK DOT.

The FAA has instructed AK DOT to schedule a joint public hearing, (which was missed during the initial process). This meeting will be on August 15th, 2019 from 5:30 PM to 7:00 PM at Rae Bldg in Seward. We are hoping for a significant turnout.

The City of Seward and many local stake holders view this hearing as an important oppurtunity to revisit what all believe is a flawed decision. It is crucial to demonstrate to DOT the extent of support by the aviation and business communities, as well as the general population, for a long term solution to the flooding at the Airport

As you may know, the Resurrection River in its meanders has approached the Airport's 4,240 ft. runway, undermined the substrate and caused the load limits to be reduced, thereby making the full use of the runway unavailable. The history of the river is well documented. In the past, control efforts have successfully although temporarily redirected flows away from the Airport.

It is not my intent here to fully discuss the technical aspects of this work but rather to gain your support for reconsideration of DOT's plans (Alt. 2.2) to eliminate the 16/34 and redesign a shorter runway instead. This redesign comes with conflicts of property ownership, loss of habitat, interference with current well used recreational areas, and a lack of coordination with future development plans in the Seward area.

The City of Seward has contacted the AKDOT, US Army Corps of Engineers and others and requested a delay in the project as this reconsideration and planning effort proceeds. Meetings of citizen groups and Seward advisory groups have taken place. Individual calls have been made to many of the list included herein.

I am asking that if you can agree to the stated positions herein & attachments, sign it or return this mail, which I will present at the hearing. In no way would I view this as your blanket endorsement and would invite you to address your own letters to the City Manager as well.

Respectfully, Bruce Jaffa Motion: PACAB recommends Council direct Administration send a letter to the Alaska Department of Transportation and Public Facilities Commissioner and Cc Federal, State and Borough Representatives insisting Alternative 1.1 be reconsidered for the Seward Airport.

Motion: Administration will forward comments to Council if they chose to send a letter based on our recommendation.

ALTERNATIVE 1.1: Reconstruct Existing Main Runway 13-31 (4,533 feet x 75 feet).

- Reconstruct and raise Runway 13-31 above the 100-year flood level.
- Install riprap (bulkhead) to protect the embankment from flooding.
- Eliminate Float Pond- cost saving measure
- Eliminate Runway 16-34- cost saving measure
- Value engineering, for example additional tests and engineering reports re: soil stability
- Future use reexamined and fully defined population data gathering- numbers are low for summer
- Discuss importance of habit of the area with community's use-reason to keep long runway and not expand short
- Include reasoning with C130s (full load deliveries only possible with this runway) and Dash 8 (only able to land on runway with this length)- key for emergency in Seward for community and individual access to save lives with life flights
- This is the only runway with ability to provide for future instrument landing equipment
- Topography favors existing main runway
- Include shareholder's list of interested parties that have already spoke in favor of 1.1
- Pattern letter as a rebuttal to Selection of the Design Alternative 10/3/2017
- Include points from Carol Griswold letter
- Explore dredging channel- point to Metco's current permits
- Cite that FEMA LOMR's and CLOMR's faster to obtain then DOT asserts
- Decreases impact to private property owners
- Explore alternate funding sources
- Invite DOT to come and discuss with community in a larger forum as a presentation Q and A

March 19, 2019

To Whom It Should Concern

Re: Seward Airport Improvement Plan

I have great concerns about the DOT's selection of Alternative 2.2 which would shift the existing, 2,289' x 75' Crosswind Runway (16-34) to the east and extend it by 1, 011 feet to 3,300'x75'. This plan would abandon the existing 4,533' x 100' Main Runway (13-31) that also serves as a levee that protects the airport, infrastructure, and salt marsh west of the Resurrection River. (Note FAA lists RW 16-34 at 4,533'. The Plan variously lists it at 4,249' and 4,500'.)

I, along with many others, support Alternative 1.1 which would retain and maintain the existing 4,533' RW 13-31. At all the public meetings, the public and pilots spoke overwhelmingly in favor of this option but it was taken off the table by ADOT.

Any alternative will require a continual funding source and staff with no guarantees of success. The long runway must be raised, fortified, and maintained as a levee with the runway on top to protect the rest of the airport and infrastructure to the west. It is risky and shortsighted to abandon it.

The Crosswind Runway points directly at an extremely important habitat for resident and migrating birds, and the location of a large Arctic Tern nesting colony. Extending the runway will bring all the fixed wing aircraft, including small jets, much closer and lower to the wetlands and ponds upon approach and departure. This will unnecessarily increase the risk of bird-aircraft collisions, and jeopardize the aircraft and wildlife.

Mitigation of all developmental impacts are critical to protect the integrity of this wetlands ecosystem that also protects the Seward Airport and adjacent Alaska Railroad property from erosion, flooding, siltation, and the threats of continuing sea level rise. Extending the Crosswind Runway will negatively impact this delicate ecosystem

Extending the Crosswind Runway also places it in an area that experiences flooding, extreme high tides, surf and ice impacts, overflow from the adjacent slough and ponds. Impacts and maintenance throughout the year including dramatically different winter conditions must be evaluated.

The only viable alternative, if dredging the main channel is not an option, is Alternative 1.1, Reconstruct the Existing Main Runway 13-31 above the 100-year flood level, install riprap to protect the embankment from flooding AND bring it up to its previous weight-bearing standards.

Thank you, Carol Griswold Seward, Alaska March 14, 2019

http://www.dot.state.ak.us/creg/sewardairport/documents/Draft-Environmental-Assessment.pdf

Hi Bruce,

Thank you for your invitation to provide comments on retaining the current long runway RW 13-31. I have a huge concern that if all the emphasis is placed on the importance of a 4000'+ runway, it will give even greater support to Alt 2.2 with a future extension of 700' of RW 16-34 to reach 4000'.

Issues with the wildlife, birds, jurisdictional wetlands, private land, etc that would complicate and negate the 700' extension must be emphasized, so that Seward will never have a long runway if RW 13-31 is abandoned. (I will certainly comment on this!)

Allowing the river to breach RW 13-31 as proposed may very well help to restore the original floodplain, but will also threaten the new RW 16-34 and millions of dollars of infrastructure at the airport and Alaska Railroad property. RW 13-31 needs to serve as a levee and runway.

I've noticed comments at City Council and PACAB meetings in support of a long runway may be misinterpreted to mean support of the new RW 16-34 with extension. Comments must express support for **improving and maintaining the existing long runway RW 13-31**.

The following are points gleaned from the Seward Airport Improvement Project EA that will need to be strongly opposed:

Main runway: RW 13-31 4,249' x 100'

Currently restricted to small aircraft with a weight of 12,500 or less due to weakening of embankment caused by flooding. Length exceeds need of current and forecast aircraft, although the longer RW would make the airport available for infrequent use by larger aircraft.

Alternative 2.2

EA proposes closing and discontinuing maintenance of this long runway
Resurrection River expected to be overtopped and breached by future flood events, allowing
floodwaters to reach RW 16-34, thereby restoring part of the original floodplain (bad idea)

Secondary runway: RW 16-34 2,289' x 75'

CITY OF SEWARD

PO. BOX 167 SEWARD, ALASKA 99664-0167



Main Office (907) 224-4050

Police (907) 224-3338

Harbor (907) 224-3138

• Fire (907) 224-3445

City Clerk (907) 224-4046

Engineering (907) 224-4049

Utilities (907) 224-4050

• Fax (907) 224-4038

February 22, 2017

DOT&PF
Design & Engineering Services
Preliminary Design & Environmental
P.O. Box 196900
Anchorage, Alaska 99519-6900

Dear Brian Elliott

Thank you for the opportunity to comment on the proposed Seward Airport Improvement project.

The City of Seward desires to see the same result as DOT&PF: a reliable working airport meeting ADG-II and Alaska Community Class airport design standards, and that will accommodate future demand and growth. We offer the following, based on your agency scoping letter of January 24, 2017.

As you've noted, recent changes in stream morphology have resulted in more frequent overtopping of R/W 13/31. It has also shifted the main watercourse of Resurrection River to the west, at first obliquely against and then aligned with the runway. It is fair to say that, rather than "...the main runway is located adjacent to the river..." that the river has relocated itself adjacent to the runway. We have discussed this in the DOT sponsored community meetings held over the last couple of years to address this issue, and were informed that in-river work, or channelization, is prohibited. Doing such work in the river is not impossible, or even impractical. Routine in-river work mining gravel, protecting riverbanks and adjacent properties, and performing flood mitigation and prevention tasks are routinely permitted and completed, both by government agencies and private parties in and adjacent to the Resurrection River. Redirecting the river as an element of protecting the runway should not be taken off the table. As is common with rapid transfer high-deposition streams in the area watershed, watercourses migrate within the floodplain boundaries, and at some point this river will be somewhere other than where it is now. Formulating a protection strategy (Alt 1.1 or 2.2) on an assumption that the floodway watercourse will remain in one place like a well-defined Kenai River or similar will likely impede the river from migrating further west, but will be of no use if the river migrates to the east. From a floodplain manager's perspective rerouting the river or placing obstructions that shape and limit the river's own natural relocation are channelization activities that require engineering and permitting. Neither is impossible, nor is one prohibited and the other allowed outright.

The current flow path continues to deposit material at the head of Resurrection Bay, causing siltation at the Alaska Railroad dock that requires ongoing maintenance and expense. It may be that the Railroad prefers a one-time larger investment (with others) towards relocating the river flow to the channel further east, where the predominant flow was located until fairly recently. This would allow natural siltation to continue, but without repeatedly impacting shipping operations.

The possible need to acquire private properties in order to implement either alternative was mentioned. Without specific parcels being identified in the scoping letter, we can't be sure which properties would be impacted, but it is likely the numerous smaller parcels to the east of R/W 13/31. These properties, though

subdivided and platted, can never be practically developed. There is no legal access, and gaining same would be a large multi-agency effort. There are no utilities (required by City Code prior to issuing building permits), and no casements across the various private and public lands that would be crossed to connect utilities. These facts are reflected in the assessor's tax values; most of the smaller lots are valued at less than \$1,000. Several owners have deeded their properties to the City in order to avoid paying taxes on undevelopable property. This gives the City, and the Seward Bear Creek Flood Service Area, a conservation and flood mitigation set-aside that's very valuable in providing needed "sponge" areas, with vegetation as stabilization. If acquisition of some or all of these parcels is necessary to implement the project work, the City will facilitate in any way we can, including acquisition and assisting with a LOMR.

We view the restoration of the predominant flow of Resurrection River to its historic channel matrix to the east, which includes sufficient width for inevitable meandering, as critical to the lasting success of either alternative. We prefer Alternative 1.1 as the less intensive in terms of wetlands impacts (~5 acres v. 13.5 for Alternative 2.2), likelihood of less ongoing maintenance, mitigation of continuing impacts to shipping at the Alaska Railroad dock, and most likely to meet the common goals of a working and reliable airport that meets applicable design criteria and plans for future demand and growth.

The scoping letter mentions that Seward is served by rail, road, and the marine highway; the Alaska Marine Highway System suspended operation in and from Seward in the every early 2000's.

We appreciate the opportunity to comment on this important project. We look forward to participating in the continuing discussion.

Sincerely.

City of Seward, Alaska

Ron Long,

Assistant City Manager

Donna Glenz,

City Planner (for Ron Long)

Email: rlong acity of seward net

Phone: 907 224-2020

Ken Risse

From: Robert.D.Hornick@uscg.mil on behalf of Hornick, Robert D LT

<Robert.D.Hornick@uscg.mil>

Sent: Thursday, August 14, 2014 12:18 PM

To: Ken Risse

Cc: Coulter, Nathan CDR

Subject: RE: PDC Engineering Facility Requirement - Seward

I do not know who does the pavement strength tests or who funds them. The LCN report I was stating came from an Air Force report. We just go by what is published in the AK aviation supplement.

As far as the use of an airfield during a mass casualty or natural disaster, if the runway is still usable we would/can use the C130 as an air ambulance to get people to higher level of care quicker.

As far as the chain of command, we normally get our direction through our district office in Juneau Alaska.

The H60 / H65 helicopters have used Seward before, and usually they only require gas. As stated earlier the C130's have not been there in a while. I will not say we will never use Seward for SAR, as we never know what situation will present itself. Having Seward available for use by C130's only allows for increased flexibility/capability to respond.

If Seward were rated for C130 use we would use it training pilots to land on shorter/narrower runways. Currently the only other field we use that is close to Sewards dimensions is Dutch Harbor and that is a 2 hr flight. You would probably see weekly flights stopping by for touch and go's. C130's would need no other services.

Let me know if you have any more questions.

LT Robert Hornick C-130 Assistant Operations Officer Robert.D.Hornick@uscg.mil (W) 907-487-5586 (C) 858-752-3103

----Original Message-----

From: prvs=296a1c91b=KenRisse@pdceng.com [mailto:prvs=296a1c91b=KenRisse@pdceng.com] On Behalf Of Ken Risse

Sent: Thursday, August 14, 2014 10:12 AM

To: Hornick, Robert D LT Cc: Coulter, Nathan CDR

Subject: RE: PDC Engineering Facility Requirement - Seward

LT. Hornick,

Thanks for the reply. Can you tell me more about the way the Coast Guard would handle mass casualties or medical evacuations? For instance, if there were an accident with a fishing boat, cruise ship or other vessel with a dozen injuries, would the Coast Guard C-130 act as a medical ambulance moving mass casualties to hospitals in Anchorage or

other cities? If there were a natural disaster, not at sea, such as an earthquake, fire or flood, would the Coast Guard respond under FEMA direction?

For the pavement strength, you mentioned that it previously had an LCN of 14. Do you go by the published pavement strength in the 5010 records (currently not available), or does the military test pavement strength at airports it plans to use?

If there were no pavement strength limitations/restrictions, how many annual C-130 operations would you expect at Seward in a typical year?

Would Coast Guard search and rescue operations ever be based out of Seward? If so, what airport facilities are needed?

Thanks for your help.

Ken Risse, PE, Senior Associate Civil Engineer

PDC Inc. Engineers
Planning Design Construction

1028 Aurora Drive | Fairbanks, Alaska 99709 v 907.452.1414 | f 907.456.2707 | www.pdceng.com "Transforming Challenges into Solutions"

----Original Message-----

From: Robert.D.Hornick@uscg.mil [mailto:Robert.D.Hornick@uscg.mil]

Sent: Wednesday, August 13, 2014 3:33 PM

To: Ken Risse

Cc: Coulter, Nathan CDR

Subject: RE: PDC Engineering Facility Requirement - Seward

Ken,

Understand you are inquiring about Coast Guard operations at the Seward airport with regards to C130 operations and impacts.

Since I have been here (2012) we have not used Seward due to the fact that it is no longer tested for the C130 bearing capacity. From what I have been told we used to operate there when it was certified for our weight.

The real impact for Coast Guard operations is for expedient planning in case of mass casualty or Medical Evacuation that would allow a quicker response via C130 than an H60. Additionally, if an H60 needed fuel and a fuel provider was not available at the airport the C130 could provide fuel. With the bearing capacity as it stands we would need a DOT waiver, which could take some time. The last report, before the 12,500 NOTAM restriction was established, is that the main Runway has an LCN of 14 equating to a max gross C130 weight of 100,000 lbs. With a runway length of 4500 we can normally operate at about 120,000 lbs, allowing enough fuel and gear to respond to the majority of situations.

Let me know if you have any questions.

LT Robert Hornick C-130 Assistant Operations Officer Robert.D.Hornick@uscg.mil (W) 907-487-5586 (C) 858-752-3103

-----Original Message-----From: Vojtech, Zachary R LT

Sent: Wednesday, August 13, 2014 2:58 PM

To: Hornick, Robert DLT

Cc: DeAngelo, Daniel J LT; Coulter, Nathan CDR

Subject: PDC Engineering Facility Requirement - Seward

Bob,

I received a phone call from Ken Risse who works for PDC Consulting Engineers, contract work with Dept of Transportation. They are putting together a Facility Requirement Chapter for the Seward airport and would like to know the importance of Seward in regards to the Coast Guard. Specifically, they are deciding whether or not the DOT should shorten the runway or change the weight capability, but would like to know impacts to our C-130 operations.

Ken Risse's phone number is 907-452-1414 and email is kenrisse@pdceng.com.

He will be completing this chapter by Friday, and would like to add our input to it before then.

Thank you.

Zach

LT Zach Vojtech Air Station Kodiak w: (907)487-5887 Note that the USACE method calls for a Class II +, Cal B&SP calls for Class IV-, and HEC-11 calls for Class II. Given the angle of attack of the flow to the runway embankment, Class III is recommended for embankment protection for the southern half of the Runway, including and extending upstream beyond the anticipated point of impinging flow. Above the point of impinging flow, Class II riprap is recommended. Additional analysis will be conducted following the selection of the preferred design alternative.

Due to the length of Runway 16/34 in Alternative 2.2, the embankment will extend into the Resurrection Bay intertidal zone. Additional erosion protection will be required to protect the runway embankment from wave runup and storm surge events.

Recommendations

Though FAA Advisory Circulars, the Alaska Aviation Preconstruction Manual, and the Alaska Highway Preconstruction Manual (AHPCM) do not provide a design return interval specifically applicable for an airport adjacent a river, Table 1120-1 in the AHPCM recommends using a discharge with a 100-year return interval to design culverts and channel changes in designated flood hazard areas with no reference to the type of facility. ADOT&PF interprets this recommendation to be applicable for countermeasures pertaining to both flooding and scour at airport facilities in FEMA mapped floodways and floodplains (Janke, 2015).

The braided channel of the Resurrection River adjacent to the Seward Airport has exhibited significant changes in location over time. Additionally, the frequency of runway overtopping events and the required maintenance has been increasing with time. Because of the dynamic nature of the Resurrection River at close proximity to the Seward Airport, the design guidelines should be conservative.

Panels 4543, 4544, 5006, and 5007 of the 2013 Flood Insurance Rate Map (FIRM) are found in Appendix H. Panel 4543 includes the Seward Airport and the Resurrection River Regulatory Floodway. FEMA regulations state communities shall prohibit encroachments, fill, new development, substantial improvements, and other development within the adopted regulatory floodway unless it has been demonstrated through hydrologic and hydraulic analyses that the proposed encroachment would not result in any increase in flood levels within the community of the base flood (100-year) discharge. In addition, the KPB Floodplain Development Ordinance (KPB, 1986) also prohibits any increase in flood levels during the base flood that result from fill, construction and other development within the regulatory floodway.

Also note that minimum federal standards limit the maximum allowable rise of the 100-year Base Flood Elevation (BFE) to 1 foot. FEMA's regulations allow for State and local government regulations that are more stringent (allow something less than a one foot rise) to take precedence.

Alternative 1.1 requires encroachment within the Regulatory Floodway due to construction of the raised runway. The hydraulic analysis shows a range of flood level increases within the regulatory floodway during the base flood. Additionally, BFE increases of more than 1 foot would occur in areas of the 1% chance floodplain other than the regulatory floodway. In addition to the large BFE increases, the impacts from the encroachment required by Alternative 1.1

include backing up floodwaters onto private properties in the middle of the Resurrection River floodplain. The eastern limit would expand as well toward Nash Road, potentially impacting private properties. Additionally, floodwater velocities generally increase, which could lead to erosion and embankment toe scour. Finally, the large BFE increases would result in a substantial quantity of material being needed to raise the runway embankment to the design crest elevation.

If selected as the engineering preferred alternative, this design would likely face substantial permitting obstacles and requires modification to the effective FIRM and Floodway Map. Such an action would require a Letter of Map Revision (LOMR), which is FEMA's modification to an effective FIRM, or Flood Boundary and Floodway Map, or both. LOMR reviews take up to 90 days to process, are subject to an appeal period, and usually become effective within six months after they are issued (FEMA, 2015a). The preparation of a LOMR request includes extensive hydrologic computations, hydraulic analysis, and regulatory requirements.

Alternatives 2.2 and 3.0 do not require encroachment within the Regulatory Floodway, and will result in BFE increases of less than 1 foot. Impacts to private properties from the BFE increases are much smaller than with Alternative 1.1. When including the effects from coastal flooding, there would be only small impacts (increased inundation) to the private properties in the middle of the Resurrection River floodplain. Similarly, there would be a very small expansion of the eastern limit of the 100-year floodplain toward private properties along Nash Road between the Seward Highway and Resurrection Bay. The expansions would still be contained within the Salmon Creek Effective FIRM floodplain. Average velocity increases would be less than 15 percent, though larger local increases may occur near new embankments.

However, either of these alternatives may still require a Conditional Letter of Map Revision (CLOMR). A CLOMR is FEMA's comment on a proposed project that would, upon construction, result in the modification of the existing regulatory floodway, the effective BFEs, or the Special Flood Hazard Area (FEMA, 2015b). A CLOMR is required when proposed changes will cause any increase the BFE where a regulatory floodway has been identified. Consultation with FEMA, the City of Seward, and the KPB Floodplain Administrator is suggested to determine if a CLOMR is required for either Alternative 2.2 or 3.0.

The following recommendations are based on the hydraulic analysis described in this report, as well as applicable local and FEMA floodway and floodplain regulations:

- 1. The engineering preferred design should be either Alternative 2.2 or 3.0.
- 2. In the future, long-term stockpiling of overburden and gravel in the channel or floodplain of the Resurrection River downstream of the Seward Highway bridges should be discouraged.
- 3. The recommended design water surface elevation for the Seward Airport Improvements project is the water surface elevation during the discharge with a 100-year (1% chance) return interval plus a two-foot freeboard.
- 4. The recommended design condition for erosion protection for the Seward Airport Improvements project is the discharge with a 100-year (1% chance) return interval.

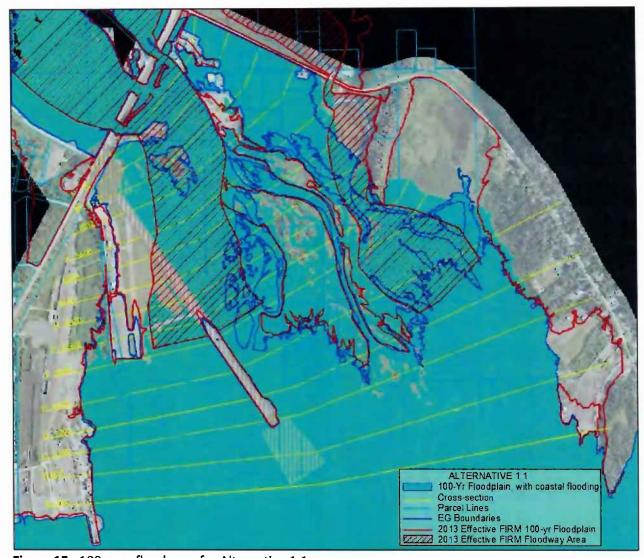


Figure 15. 100-year flood map for Alternative 1.1.

Alt 1.1-This design alternative raises the elevation of Runway 13/31 above the 100-year flood with a 2-ft freeboard. Both runways remain above the base flood elevation. The Alt 1.1 water surface elevations across the floodplain east of the runway are substantially higher than those of the EG model. Water surface elevation increases of greater than 1 foot occur from Cross-section D to Cross-section J. The maximum water surface elevation increase is 4.04 feet, and occurs at Cross-section F. The private parcels in the middle of the Resurrection River floodplain are completely inundated. At some areas of the 100-year floodplain between the Seward Highway and Resurrection Bay, the eastern limit has expanded. At Cross-sections D and E, the Alt 1.1 floodplain boundary is 70 feet to the east of the Effective FIRM floodplain (red line). At Cross-sections F and G, the Alt 1.1 floodplain boundary is 300 to 500 feet east of the EG model boundary (dark blue line). Though it is within the Salmon Creek Effective FIRM floodplain Zone AH, the Alt 1.1 water surface elevations of Cross-sections F and G are slightly higher (1-2 feet) than the FIRM base flood elevations there. At Cross-section K, the Alt 1.1 floodplain boundary is approximately 400 feet northeast of the EG model boundary, but still within the Salmon Creek Effective FIRM base flood and floodway boundary. See FIRM Panel 4544.

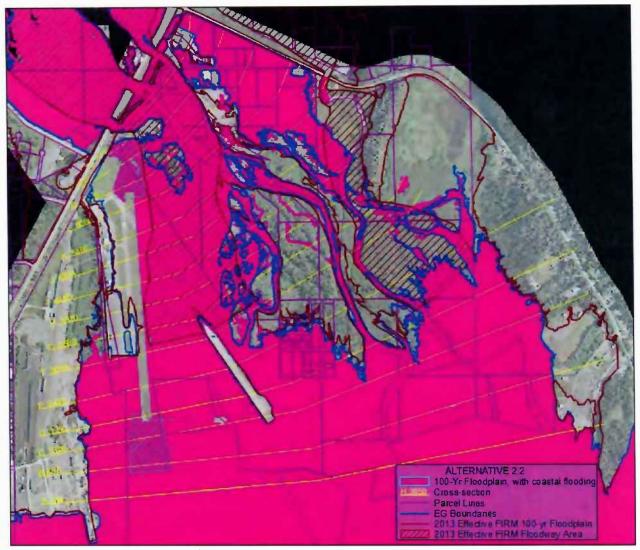


Figure 16. 100-year flood map for Alternative 2.2.

Alt 2.2-This design alternative reconstructs Runway 16/34 and raises the elevation with a 2-ft freeboard above the 100-year flood. Though Runway 13/31 is abandoned for active aircraft use, it is armored to prevent embankment erosion and channel migration.

Water surface elevation increases of less than 1 foot occur from Cross-section F to Cross-section M. The maximum water surface elevation increase is 0.78 feet, and occurs at Cross-section F. The private parcels in the middle of the Resurrection River floodplain are partially inundated. At some areas of the 100-year floodplain between the Seward Highway and Resurrection Bay, the eastern limit has slightly expanded. At Cross-section F, the Alt 2.2 floodplain boundary is 160 feet east of the EG model boundary (dark blue line); a low spot in Cross-section G 200 feet east of the EG boundary is inundated. These locations are within the Salmon Creek Effective FIRM floodplain Zone AH; however, the Alt 2.2 water surface elevations of Cross-sections F and G are lower than the FIRM base flood elevations there. At Cross-section K, the Alt 1.1 floodplain boundary is approximately 400 feet northeast of the EG model boundary, but still within the Salmon Creek Effective FIRM base flood and floodway boundary.

From: scleirer@gci.net [mailto:scleirer@gci.net]

Sent: Saturday, August 10, 2019 9:34 PM

To: Morehouse, Carolyn H (DOT) < carolyn.morehouse@alaska.gov>

Subject: Seward airport DOT hearing on Aug 15 2019

I am a person in Seward that is concerned about this project and DOT's plans that ignore the Flood potential of the Resurrection River that is butting up to the east side of what is called Airport #31 (Long runway)

My argument is that DOT should abandon its plans of making the Short runway the primary runway, which would be extended at a later date.

This runway would crowd the current Alaska RR dock and industrial area, and result in a flight pattern going into shipping lane traffic. The river still has the potential to wash out a new runway, if it were to change channels. Another point is that Seward and the Alaska Rail Road needs land in this area, East of its current dock, for future dock expansion.

The long runway currently, with past maintenance rip rap, is holding the River back. The Long runway is the only barrier holding the river, which wants to cross the runway and flow into the Alaska RR Docks and Seward boat harbor..

This long runway should be salvaged, by heavy brake-water type rip-rapping, and finger dykes installed to force the river away from the Airport, The long runway, should be raised 5 or 6 feet and leveled and make into Seward's main airport runway. I do not know about the winds and their effect for landing and takeoff for airplanes.

This Hearing is very important to be attended by all interested and impacted. SCL

From: Christy Terry < <u>vonandchristyterry@yahoo.com</u>>

Sent: Wednesday, August 14, 2019 10:47 AM **To:** Solstice AK <<u>solsticeak@solsticeak.com</u>>

Subject: Seward Airport Improvement Project meeting Thursday

Hello-

Just so you are aware - this format proposed is unacceptable to Seward. Public, PACAB, Council and Adminstration all specifically asked for a public meeting and NOT an 'open house' format. The 'open house' format clearly puts the community at a disadvantage and at this juncture will not be tolerated. The community will not stand for the style being proposed. We will be self organizing to have one person at a time give public testimony to your whole group while the other attendees watch and listen.

Christy Terry

Sent from Yahoo Mail for iPhone

----- Forwarded message -----

From: <<u>Bruce@jaffaconstruction.com</u>> Date: Thu, Aug 15, 2019, 10:58 AM

Subject: Seward Airport Improvements feedback

comments2	Seward Airport Improvement Project
name	Bruce Jaffa
satisfied	add to list
comments	I support Alternate 1.1 and the repair and protection of the existing 4200 LF Runway. The community of Seward Social and Economic future will be negatively impacted by the preferred Alt 2.2.I support the Seward Airport repair plan that will maintain the full 4200 ft. runway at its original design load. I support the DOT Alternate 1.1 that has been reviewed and supported by the City Council, 3 City Managers, Public testimony the PACAB Advisory Board, users, local businesses and more. I support efforts to enlist partners to control the Resurrection River and its meanders that threaten the marine developments in Seward and contribute to the current damage to the Airport. I ask that AK DOT not expend more funds or deplete available Federal funds at this time until a long range plan is developed that will meet expected Social and Economic growth needs of the Seward Community. This statement is intended to represent my views. I am aware that the current respo! nse deadline is August 25th, 2019 and I may or may not be able to add additional comments and meet that date that occurs so close to the August 15th Hearing.
zipcode	907-240-0362
comments1	
email	Bruce@JaffaConstruction.com

From: Lori Landstrom < ljlandstrom81@gmail.com>

Sent: Thursday, August 15, 2019 10:30 AM

To: Elliott, Brian A (DOT) < brian.elliott@alaska.gov Subject: Seward Airport Improvements comments

Dear Sir,

I'm not a pilot but a resident of the Seward area. I have no vested interest in the Seward airport. However I do have a vested interest in growing the economy in our town. In the 17 years I've lived in Seward there have been many winters when the only highway in and out of town was closed for hours to days...

Our airport is vital to the health and safety of our town.

Since I'm not a pilot I don't know if the proposed length of the RW 16-34 would be long enough for lear jets to land and take off. I ask that you make sure the length and orientation of RW 16-34 accommodates the occasional use by Beech 1900, Dash * and small charter business jets.

While preserving the wetlands as much as possible. And rehabing the removed RW13-31. I support proposed action-Alternative 2.2. Thank you.

Lori Landstrom, Seward area resident

"Do the best you can until you know better. Then when you know better, do better,"

-Mya Angelou

From: scleirer@gci.net Sent: Thursday, August 15, 2019 8:19 AM
To: Solstice AK <solsticeak@solsticeak.com>

Subject: SEWARD AIRPORT, DOT PLAN NEEDS AMENDING

DOT's Seward Airport plan has ignored the effects of Resurrection Rivers Flooding, CHANGING CHANNEL, breaching the LONG RUNWAY, and destroying the Alaska RR Dock and Boat Harbor areas.

I think you have been made aware and warrened of this possibility. Does Solstice AK have any liability here? Please read attached.

S Leirer

August 5, 2019

State of Alaska
Department of Transportation
Attn: Brian Elliott, Environmental Manager, DOT & PF
P O Box 196900
Anchorage, Alaska 99519-6900

Subject: Comments on the Seward Airport Design and the future of the Resurrection River and its impact on the community.

Dear Barbara Beaton:

There has occurred detailed planning, public meetings, science studies, technical analysis, environmental analysis and flood analysis, to name some of the areas covered, concerning the Seward Airport and its redesign since 2014. Details on the State of Alaska's information on this subject can be located on the DOT documents website.

I have lived in Seward most of my life, and as a young person each day each summer in the mid-1050s, I walked the entire beach area rounding up dairy cattle. I am very familiar with the history of this area, where the old channels for Resurrection River ran, the various slews, and tide flows, the old beach line and the influence of tidal action both pre and post-earthquake, and the original construction of the LONG airport (# 31) in the 1950s.

I am not an engineer, hydrologist, ecologist, nor airplane pilot. Good common sense and personal observation, study, and interest in an environment can accomplish much toward sound infrastructure development. The purpose of this paper and my input is to provide an overview and assessment of the pending Seward airport reconstruction project; and to provide fundamental concepts concerning current and future flooding of the Resurrection River, as it affects the airport and Seward's seaport infrastructure.

This letter is not a criticism of the DOT or its affiliates. The engineers have done an adequate job of designing a new airport for Seward, and they have covered ALL aspects of the project. However, the developmental process and design is dominated by influences such as: environmental impact studies, public input, FEMA rules, Fish and Game issues, aircraft/payload issues, FAA rules. The State's policy on airport design, and airport policy and State and Federal funding is also a major influence.

The airport planning and design process has remained predominant and centerstage; while the impact of the Resurrection River and its power for flooding and destruction remained backstage and secondary. WHAT IS IGNORED AND MARGINALIZED BY THE PLANNERS, IS WHAT INFULENCE AND IMPACT RESURRECTION RIVER WILL HAVE ON THE SEWARD HARBOR AREA, AND AIRPORTS, IF IT WERE TO CHANGE ITS COURSE. This River has the potential to do great harm to Seward's harbor

infrastructure and cost millions in engineering, dredging repairs, lost financial opportunity, and even jeopardize the new short airport if completed.

Let's take a look at what may AND will probably happen.

Refer to the google earth photograph (attached) of the airport and river showing the flow patterns wrapping around the end of the LONG RUNWAY. The River wants to run West and to lower ground, toward the Alaska Railroad dock.

It is my understanding that the plan calls for the building of a new airport where the existing SHORT RUNWAY (labeled # 16) now exists, and at a later date, extend its direction out into the tide flats. The LONG RUNWAY (labeled # 31) will be abandoned, with lighting and asphalt removed.

Assuming that runway # 31 is abandoned, and no rip-rap is maintained, the asphalt removed, and the Resurrection River crosses the long runway at its midpoint at the section of the runway that is currently lower in elevation at its midpoint (near the current taxi way); the river then cuts a new channel into the area between runways 16 and 31. The river's new channel will dump its entire sand, gravel and silt load into the beach area between the two runways and adjacent to the Alaska Railroad docks; and eventually advance it's sediments into the entrance to the small boat harbor. From this point it could advance down the beach front area toward the campground. If 100% of the River flows in this new channel it could do so for 20 to 50 years.

This event could happen in one, two to five years, especially if the existing pavement is removed off the runway # 31 and the existing rip-rap protection is not maintained. As of this date the existing midpoint rip-rap is protecting from erosion of runway #31 at its midpoint and south end.

PROPOSED SOLUTIONS FOR SEWARDS AIRPORT AND THE CONTROL OF RESURECTION RIVER

The pavement topping on #31 should be left intact as a protective cover, the above-mentioned crossing may be delayed a few years, but depends on future floods in the fall of each year. Past DOT's added rip-rap and maintenance at the midpoint section, has prevented the rivers erosion of the runway. Flood pictures by DOT show water over the runway #31 at the midpoint area where it has its low section. This lower elevation dip in the runway at midpoint adds to the risk of the rivers crossing at midpoint.

One objection by planners to the continued maintenance and adding rip-rap to protect the washout of 31, was that it would cause flooding on private property to the East (the Clark subdivision) and to the North in the area of the Civil air patrol land. The old Clark subdivision, with no access, was abandoned after the 1964 earthquake. These lots now cannot be used with river channel on all sides. The Kenai Peninsula Borough should buy these lots now to get them into public ownership. There are private parcels to the north off the Seward highway that probably would never be affected by maintenance

and improvements to #31 further downriver. These parcels are upstream from any work at the midpoint on runway #31.

Another objection by planners was the regulation problems with trying to mover the Resurrection river away from runway #31; primarily from FEMA, and the Department of Fish and Game, and possibly other government agencies. These objections are a fallacy. Working in a glacial stream subject to annual flooding to control it should not be a factor for Fish and Game. The fish seasonally swim up the river, will move when the stream moves. Remediation construction with rip rap should not be noticed by the fish. A violent glacial river is always is changing and is not a problem for fish. Much greater impact would be experience when the river breaks over runway #31.

LIST OF ACTUAL IMPACTS BY THE RIVER CHANGING TO THE NEW CHANNEL

Resurrection River deposits sediments in the area between Alaska Railroad dock and the end of runway #31.

The AT&T fiberoptic cable entering the shore may be affected. This cable is primary to communications for Alaska.

The drainage culvert located under the Alaska Railroad property draining the industrial area and Clearview may be plugged or slowed restricting drain water. This pipe drains water under Leirer Industrial subdivision, the Railroad property at the depot and north the round house.

The boat landing area to the East of the Alaska Railroad dock becomes unusable for boat landing and repair.

The Alaska Railroad does not have adequate space to expand its dock facilities to the east of the present dock.

The cruise ship industry may have to abandon Seward as a port of Call for a lack of facilities.

The US Coast Guard may have to abandoned Seward as a port of Call because of the lack of facilities and having a short runway.

The Ak RR would have to dredge its harbor to remain open, with no place to deposit dredge material.

The Kenai Fjords cruse tourist industry and fish charter boats would be in japery with a closed small boat harbor.

Icicle Seafoods would not be able to accept boats discharging raw fish.

PRACTICAL SOLUTIONS FOR CONTROL OF THE RESURRECTION RIVER AND THE AIRPORT PLAN FOR SEWARD

Keep and make the LONG runway # 31 the primary runway for the Seward airport. Is it already adequate in length? It just needs to be upgraded and protected. The runways alignment may be better for takeoff and landings considering winds. The air traffic patters would be in the center of the Bay

<u>First</u>, immediately continue to protect the LONG runway # 31 with whatever rip rap protection and maintenance is required to hold back the river.

Longer term permanent and stronger Riprap should be installed to protect a runway with a higher elevation. This could be done in phases or possibly all at one time. Finger dykes could be designed to force the river to make a channel further away from the protective rip-rap.

In the future, Rip rap could be extended beyond the LONG runway further south. to carry sediments further into the center bay. With a strong current and a good channel, a river will clean itself out on a timely basis.

Second, raise the elevation of the entire LONG runway # 31 at least 4 to 5 feet and make it level.

Leave the SHORT runway # 16 as presently laid out, as a hanger, taxiway, office, business center, and parking area. Extending the PROPOSED short runway #16 into Resurrection Bay tide flats and beach will crowd the Alaska Railroad and its shipping lanes. It will limit the Alaska Railroad from expanding to the east, possibly with a new dock and gantry cranes for shipping. They need expiation potential and flexibility.

Lengthening the SHORT runway into a primary and longer runway would result in the landing and takeoff flight path to very close to the Dock and large ship traffic lanes.

Let's make the of Resurrection River and the Seward Airport plan be compatible.



Seward Airport

Due to different data sources property lines and aerial imagery do not overlay correctly. Map is to be used for orientation and reference purposes only.



	Drawn By:				
#	0	400	800	1,600 Feet	
"	Mapping Assistance by Alaska Map Company, LLC				

From: Patricia Linville <patricialinville3@gmail.com>

Sent: Monday, August 19, 2019 11:44 AM **To:** Solstice AK <<u>solsticeak@solsticeak.com</u>>

Subject: Seward Airport Improvement Public Comment

RE: Seward Airport Improvement Project

Thank you for coming to Seward last week. As those who were in attendance demonstrated this is a very important project to our town and we want to get it right.

I am not a geologist, biologist nor engineer. Nor am I a pilot. Yet, I wholeheartedly agree with Bruce Jaffa's statements concerning the outcome of these "improvements." They should not result in an airport that is smaller and less functional than what we have had in the past.

It was stated during the last meeting that the population of Seward and Moose Pass was fairly stagnant and the use of the airport wasn't pointing to maintaining the status quo of the current airport. Please understand that while our permanent population may not have increased, the use of our area has ballooned. This seasonal influx of people is evident as I struggle each day to turn across traffic to get onto the highway. However, statistically this phenomenon was shown in our library use numbers. As the director of Seward Community Library Museum for 16 years, we received national recognition for the number of people who came through our doors compared to our service population (number of permanent residents). Since 2009, the first year of this national statistical report Seward's library visit statistic/population was ranked in the top ten of libraries nationally of similar size. While not

necessarily great for those of us who have to navigate our local streets, this influx can and should be the basis for improving local infrastructure, including our access to adequate air transportation.

I realize there are significant issues with the topography and flooding that are difficult to address but, as you may have heard, Seward deals with these issues all the time. I also realize the team has done a lot of work to identify and find solutions to mitigate these and that work should be commended. However, I urge you to widen your scope, invite and engage more local input and help Seward find an improvement that represents the **actual** use of our area and the potential greater use that would result from an **improvement upgrade** rather than what has been proposed.

Thank you for this opportunity to comment and please let me know if you have any questions or concerns.

Sincerely,

Patricia Linville

Patricia Linville PO Box 1753 Seward, AK 99664 907-205-7459 cell From: Bob Linville <dutchladyfisheries@hotmail.com>

Sent: Tuesday, August 20, 2019 12:14 PM **To:** Solstice AK <<u>solsticeak@solsticeak.com</u>>

Subject: Seward Airport Project comments on Draft EA and Proposed Action

Please include the attached document in your comment file for this project. Thank-you.

--- Bob Linville

August 19, 2019

Robin Reich
Public Involvement Coordinator, Solstice Alaska Consulting, Inc.
2607 Fairbanks Street, Suite B
Anchorage, Alaska 99516

Greetings:

The first line below "Contact Us" on the Seward Airport Improvement Project website states, "Your questions and comments are important to us!". I hope that is still true. I have been an active participant at all four publicly announced meetings which took place at the KM Rae Marine Education building in Seward, as well as last Thursday's meeting at the Seward City Hall. This is my third written comment concerning this project. Other "stakeholders" meetings have been referred to in the documents. If any of these "stakeholders" meetings were announced publicly in any fashion, I am not aware of it even though I have been on your project email list since 2014. As a prior plane owner, family member of a current plane owner, and user of both the runways and the wetlands I am very interested in this project and wish to be considered a "stakeholder".

The "open house" arrangement used in previous Rae Building airport meetings was rejected last Thursday evening by attendees up front allowing a more formal auditorium venue for oral public testimony to be given for the record. As a veteran of 40 years' worth of previous large Seward project public processes, I have never prior to this one witnessed the virtual 100% agreement that was on display in testimony at this meeting. That is; the Seward community supports Alternative 1.1 or some variation of it, period. I was not alone in rejecting Alternative 2.2 as selected by the Seward Airport ADOT Planning Team.

Seward has used existing 4240 ft runway 13-31 in a two runway configuration for more than 50 years. The selection of Alternative 2.2 would allow the Resurrection River to breach abandoned Runway 13-31 which it would do in short order. This scenario vastly diminishes the potential uses of our airport and destroys wetlands used extensively by local residents and birds. These wetlands are extremely valuable and may be the best bird habitat ecosystem in the area. And for what? So that Seward's future economy and use, both private and commercial, can be constricted by a 1000 ft shorter one runway airport.

Kenneth F. Karle, P.E. reiterates in his report "Hydraulic Mapping and Modeling" dated July 6, 2016, previous analysis stating bedload rates in the Resurrection River to be

"high" with accompanying "active channel migration and severe sediment deposition". Furthermore, the report states "Transport of these materials consistently modifies the major stream channels. The river migrates back and forth through many distributaries located in a flood plain ranging up to 1 mile in width." That is the lay of the land with every river or creek this vicinity. I agree with Mr. Karle and ADOT that "channel excavation is not a viable engineering solution to control flooding at the Seward Airport". However, dikes are extensively used throughout this valley to protect development, much more so than excavation. Name a creek or river, and I'll show you a dike. Yes, airport runway 13-31 is now also functioning as a dike as will Alternatives 2.2 or 3 should those runways be built. That's why "erosion control" i.e. riprap, is in use now and will be used no matter which project alternative is built. The FAA doesn't like the term "dike" and says they can't support the construction of such. But that's not what they are asked to provide funding for. We need funds to construct a runway protected by riprap for erosion control which will be needed no matter which alternative is picked or where this airport is placed in our area. As the Resurrection River's bedload has historically increased elevation on the eastern portion of its alluvial fan, it has moved west to fill in the now lower elevations in the western portion. Is it not obvious that given sufficient time and bedload deposition the river will move again in the future back to the east? The river has moved back and forth in its available channel throughout its geological history and it will continue to do so no matter which airport runway alternative is built. Of paramount importance to Seward however is where the inevitable bedload deposition occurs. Should ADOT's current preference, Alternative 2.2 proceed allowing Runway 13-31 to be breached, bedload deposition will then begin to fill an area directly adjacent to our port.

I have attached to this letter a Google Earth view of the Resurrection River delta to illustrate how bedload deposition has formed the outwash tidal plain at the head of the bay to date. It can be plainly seen that Runway 13-31 has diverted deposition to the east on the tidal plain leaving an open tidal basin directly south of existing Runway 16-34. Should the main river be allowed to dump bedload directly into this basin going forward, the head of the bay will gradually reshape itself to fill in the gap and be even straight across, thus filling in the entire Railroad dock and threatening the entrance to our small boat harbor. Looking at the picture, this scenario is hard to deny. Why would we want to hasten the day when we have to frequently dredge the Port of Seward to keep it open? Selecting Alternative 1.1 avoids that outcome for decades to come.

Admittedly, keeping flow directed as it is now by elevating and reinforcing Runway 1.1 will result in increasing flood levels to the east. The FIRM Map will need modification and a LOMAR requested. Some privately held parcels will be affected, mostly in the

now entirely vacant Riverside Subdivision. Please refer to the following caption from "Figure 14, 100-year flood map for Existing Conditions" in the documents: "The private parcels in the middle of the Resurrection River floodplain are almost completely inundated as well, but that inundation is primarily due to the effects of coastal flooding from the 1-percent-annual chance tide event". Alternative 1.1 will inundate these properties during 100 year flood events, but most of these subdivision lots are already in that condition now due to earthquake caused elevation drop and tidal flooding. Several other parcels are publicly owned. Access and flooding have prevented any building since 1964 which will be taken into account should condemnation become necessary. There is a native allotment in the vicinity but its location is considerably above the project and it may be in an elevation that is not affected or could be mitigated. We need much more analysis of each of these issues.

The FAA has also determined that airport usage rules preclude them from funding any runway project in Seward longer than 3300 feet. I don't believe that restriction existed when Alternative 1.1 was first discussed in the documents. Should this become an obstacle to the funding of Alternative 1.1, I suggest that a new Alternative 4 be created which would raise and protect the southeastern 3300 feet of Runway 13-31, blending in that profile with the existing northwestern 940 feet thus allowing continued use of the full runway. The northwestern section is protected from the river by slightly elevated tree covered land to the north that has suffered minimal flooding to date. Yes, we would much rather see the whole of Runway 13-31 included in one project. But as you heard at last week's meeting, this community is not willing to accept Alternative 2.2. We support the necessary FIRM revisions, and feel that these revisions must be done in any event. Attention needs to be given to which properties are vital to Seward's economy and heavily used by citizens, and which are vacant, lack access, have suffered flood damage already, and stand in the middle of Resurrection River braided outwash plain unprotected by dikes of any kind. The cost of protecting the latter exceeds their value massively. The economy of Seward and our quality of life should not be sacrificed in order to maintain the facade of their protection.

I look forward to participating in its continued discussion on this project.

Sincerely,

Robert Linville Seward, Alaska

linville@ak.net 907-224-3252



Google Earth 2019 view of tidal flats and bedload deposition at the head of Resurrection Bay.

From: rainyday < c griz@yahoo.com>

Sent: Wednesday, August 21, 2019 4:41 PM

To: Elliott, Brian A (DOT) < brian.elliott@alaska.gov>

Cc: Robin Reich < <u>robin@solsticeak.com</u>> **Subject:** Seward Airport Improvement Plan

Hello Brian,

Please see attached.

Thank you,

Carol Griswold Seward August 21, 2019

Re: Draft EA Seward Airport Improvement Project

Brian.Elliott@alaska.gov

Dear Mr. Elliott,

Thank you for this additional opportunity to comment.

At the contentious and sad Seward public hearing, community members finally felt we were heard. After several hours, expert mediator Keith Gordon hit the nail on the head. What we didn't realize, despite all the previous public meetings and Open Houses, was that each state and federal agency has regulatory, budgetary, authority, and mission restraints.

The USACE can't raise, armor and rebuild the existing 4240' runway 13-31. The ADOT can't work in Resurrection River. FAA can only fund airport-related expenditures. The solution Keith suggested, similar to how Homer resolved its problem with erosion on the Spit, was to invite all the agencies to a city-sponsored meeting and work collaboratively towards a solution.

The City of Seward needs to hold a similar public meeting and invite the ADOT, USACE, FAA, KPB, the City, PACAB, and any other interested parties to collaborate on a joint solution to define and discuss the issues and solutions to achieve Alternative 1.1.

A discussion item has been added to the August 26 City Council meeting, with the intent to schedule a work session and keep moving forward to resolve this issue in a timely manner.

I appreciate the tremendous efforts of all those involved.

Thank you,

Carol Griswold Seward, Alaska ----- Forwarded message -----

From:

bruce@jaffaconstruction.com

Date: Sat, Aug 24, 2019, 10:10 PM

Subject: Seward Airport Improvements feedback

To: < robinreich37@gmail.com>

	Courand Aires and Incompression to Durington			
comments2	Seward Airport Improvement Project			
name	Bruce Jaffa			
satisfied	add to list			
comments	I support the Seward Airport repair plan that will maintain the full 4200 ft. runway at its original design load. I support the DOT Alternate 1.1 that has been reviewed and supported by the City Council, 3 City Managers, Public testimony the PACAB Advisory Board, users, local businesses and more. I do not believe the data that has been gathered is complete, accurate or leads to the conclusion the DOT has suggested. I support efforts to enlist partners to control the Resurrection River and its meanders that threaten the airport and other marine developments in Seward and contribute to the current damage to the Airport. Where Alt. 2.2 and 3.0 are not acceptable, the Alternate 1.1 enjoys support from Pilots, FBO's, commercial interests in Seward, Environmental community. This broad support should mean something. I ask that AK DOT not expend more State funds or apply for available Federal funds at this time until a long range plan is developed that will m! eet expected Social and Economic growth needs of the Seward Community. This statement is intended to represent my views, however I have personally contacted a dozen organization including AOPA, Alaska Airmen's, Alaska 99, Chamber of Commerce, KPEDD, Local FBO' Local Pilots, Commercial interests and all parties do not accept the logic that less is more. Anything shorter than what is currently in place is a step backwards. It is disappointing to learn that after 5 years of effort AKDOT has not fully described the obstacle to rebuilding the current 4200 ft runway. After the August 15th meeting it becomes apparent that the solution requires action in the Resurrection River that can not be performed by AKDOT. Rather than finding an agency or method to resolve the river problem Alternate 2.2 was selected as expedient. The community and working groups in Seward believes that help may be available to allow funding 1.1. Value engineering of the runway repair can mitigate the flooding! problems and provide quality construction at a cost below the! Alternate 2.2. It would b			
zipcode	907-240-0362			
comments1	Resident/ Pilot/ Business owner			
email	bruce@jaffaconstruction.com			

Sensitivity: Normal

----- Forwarded message ------

From: rufrock@arctic.net> Date: Sun, 25 Aug 2019 at 19:24

Subject: Seward Airport Improvements feedback

To: <robinreich37@gmail.com>

comments2Seward Airport Improvement Project

name Mark Luttrell satisfied add to list

comments The public prefers Alternative 1.1. Its up to you, the government professionals who know the law and process better than anyone, to sort yourselves out and serve the legitimate and defensible interests of the public.

zipcode 99664 comments1

> email prufrock@arctic.net

----- Forwarded message -------From: <Bruce@jaffaconstruction.com>

Date: Mon, Aug 26, 2019, 2:06 AM

Subject: Seward Airport Improvements feedback

To: < robinreich37@gmail.com>

comments2	Seward Airport Improvement Project		
name	Bruce Jaffa		
satisfied	add to list		
comments	In addition to any consideration for air safety, Options to pilots, availability to larger aircraft a longer runway provides opportunities for community growth. DOT Alt 2.2 at 3300 ft or 3.0 at 4000 feet is less than the current 4200 feet. Reducing length is a backward step, does not anticipate Seward future growth and needs. Using historic data from the EIS, that is of debatable worth ignores the proven strengthening of Seward based on commercial industry, tourism, fisheries, marine related business and more. If concerns for Defense or emergency planning cannot be considered in this process the impact on the economy can. Therefore guidance from the Seward area groups and City administration should be incorporated with a strong bias toward their understanding of Sewards needs in the future. Anything less than 4200 feet is a step backward.		
zipcode	907-240-0362		
comments1	Resident/ Pilot/ PACAB member/ MPAPC Commissioner, Business Owner		
email	Bruce@jaffaconstruction.com		

From: cyrufrock@arctic.net
Date: Mon, 26 Aug 2019 at 17:54

Subject: Seward Airport Improvements feedback

To: <robinreich37@gmail.com>

comment s2	Seward Airport Improvement Project
name	Mark Luttrell
satisfied	do not add to list
comment	The public prefers Alternative 1.1. Its up to you, the government professionals who know the law and process better than anyone, to sort yourselves out and serve the legitimate and defensible interests of the public.
zipcode	99664
comment	
s1	
email	prufrock@arctic.net

From: Olivia Cohn

Sent: Monday, August 26, 2019 2:45 PM

To: Royce Conlon; Erica Betts

Cc: Robin Reich

Subject: Phone Call: Requesting Seward Airport Project Team Roles (Lynda Paguette, Port and

Advisory Cmt)

Hello,

I just spoke with Lynda Paquette, who serves on the Port & Commerce Advisory Board for the City of Seward (http://www.cityofseward.us/index.aspx?NID=873). She called because she is interested in who was at the Seward Airport Improvements Project hearing, and she asked if I would provide her with some information about who was there and what their roles are in the project.

She was very reasonable on the telephone, and I think she wants to be heard and responded to since she called. I wanted to check before providing her with a response in order to be sure I provided the correct information.

Thanks.

Olivia

Her message is below, and I would like to follow-up with the information she requested.

From Lynda:

- She is a City Commissioner and serves on the Port & Commerce Advisory Board for the City. She attended the public hearing and livestreamed the conversation to Facebook.
- She just wants to understand the players involved in the project
- Her understanding and opinion of the project right now is that everyone needs to come to the table to decide what is happening given that:
 - o Alternative 1.1 s the only thing that the community wants
 - This feels like it has reached a crisis
 - The community's perception is that DOT&PF laughed at them during the hearing; meanwhile, they think that DOT&PF feels like the people in the community disrespected them
- The project will be discussed at tonight's Community Council meeting
- Lynda has called Barb Beaton and Jonathan Linquist several times to better understand who is playing which role in this project, but she hasn't been able to get through to them, yet

May I share the following information with Lynda (phone: 907-491-2378; email: admin@angelscareinc.org)? Please advise if this looks inaccurate.

The following personnel attended the Seward Airport Improvements Project hearing. A list of their roles as they relate to the Seward Airport Improvements Project are provided below.

Alaska Dept. of Transportation & Public Facilities

- Jim Amundsen, Barbara Beaton, and Travis Dennison project managers and engineers
 - Jim oversee the project, Barbara is the Project Manager and lead on this project, and Travis is the Consultant Coordinator
- Kevin Knotek, airport maintenance (in Seward)
- Joselyn Biloon and Jessica Wuttke-Campoamor, planners

- Renee Goentzel, environmental impact analyst
- Luke Bowland, engineer

Federal Aviation Administration

- Keith Gordon, Environmental Specialist
- Jonathan Linquist, Planner

PDC Inc. Engineers

• Royce Conlon and Erica Betts – project engineers and environmental document lead

Solstice Alaska Consulting, Inc.

• Robin Reich and Olivia Cohn – public involvement and environmental support

From: Olivia Cohn

Sent: Friday, August 30, 2019 1:10 PM

To: Royce Conlon; Erica Betts

Cc: Robin Reich

Subject: NOAA Contact Interested in Seward Airport

Celine Van Breukelen, a Senior Service Hydrologist with the Weather Service called (phone: 907-266-5137, email celine.vanbreukelen@noaa.gov).

She is interested in an update on the status of the Seward Airport Improvements project given that she is aware that the area is prone to flooding. She asked if we could provide an update.

Would you like me to include this in all the comments (I'm working through them with a plan to prepare responses by category, as previously indicated), and then prepare a draft email response?

And/or would you like us to talk via telephone soon to discuss the comments? If I have the court reporter feedback on Tues., Sept. 3, as she indicated, perhaps that would be a good time to talk.

Thanks. Olivia From: Olivia Cohn

Sent: Monday, December 16, 2019 1:00 PM

To: 'Beaton, Barbara J (DOT)'

Cc: Angela Smith; Erica Betts; Robin Reich
Subject: Re: Seward Airport Commenter: Bob Linville

Hello Barb,

Per your and Angela's emails last week (below), I called Bob Linville back last Wednesday, 12/11, to close the loop and relay your message. We spoke for a while. I relayed that, "the comments with responses are circulating at FAA and with upper management at ADOT," in response to his telephone call inquiring about the status of his comment.

Bob's tone on the telephone was frustrated with this project and process. The points he reiterated while we spoke, paraphrased directly from his words, are below. I've documented these comments. Please let me know if you would like additional follow-up.

Thanks.

Olivia

Comments (paraphrased) relayed from Bob Linville to Olivia Cohn via telephone, 12/11/2019

- The project is now just about politics. DOT has made up its mind.
- No one is happy about this project. I've never, ever before seen the community of Seward be so completely united in a stance on an issue or about anything.
- The community wants another meeting, this time with FEMA and the U.S. Army Corps of Engineers at the table.
- The whole valley is a flood zone that is 100% protected by dykes. The conversation should be about protecting important infrastructure. Stephanie Presley (with the Kenai River Center) has been representing perspectives on floodplains since the project started and has been educating folks in Seward about this issue. Why can't we protect the airport runway from the Resurrection River? This should be discussed as a flood control project. Why isn't that considered?
- There are so many things that are wrong with this process and with the proposed document. Flooding is only one of the issues of many.
- We have a committee to work on this issue, and Bruce Jaffa is the chairperson. We met last Thursday, and the City Council meeting was on Monday. We will probably meet again before Christmas to determine what to do next. It's not yet scheduled.
- We feel like we're commenting and commenting and no one is listening. We want more communication and more public involvement.
- We do NOT want to talk about the proposed alternative or any of the alternatives anymore. We want to meet again. We want this project to be about protecting infrastructure and repairing the runway we have. That's what the next meeting should be about.
- We would like to call a multi-agency meeting. We will not be unheard. We will not wait to hear that DOT is just going to do what it wants to do. FAA will listen to DOT. We want to let FAA know that what has been proposed is not what we want. It's not what the town wants.
- I have never seen such an opaque, dead-end project with a dead-end road.
- We would also like to talk directly with Barbara Beaton since she is the project manager. I think it would be really nice if Barbara would call the Seward Mayor, Christy Terry. This would be really helpful.

Draft EA Public Review Comment Summary and Responses (December 2018-August 2019)

Seward Airport Improvements Responses to Public Comments Received During the Draft EA Phase: December 2018 – August 2019

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INTRODUCTION

To members of the public who took the time to comment on the Draft EA, thank you for your comments. All of the Draft EA comments that have been received have been provided to the Federal Aviation Administration (FAA) to facilitate FAA's analysis of and decisions related to the Draft and Final EA. This document acknowledges that all of the comments have been provided to FAA for these purposes and provides responses to comments requesting additional clarity or information. Please note that while this document does not list all comments received verbatim all comments received in relation to the Draft EA, public meetings and public hearing were provided by DOT&PF to the FAA. In addition:

- This document summarizes comments from the public as received from December 2018 (following publication of the Draft EA in November 2018) through August 2019 (following the public hearing in August 2019).
- Emails from residents requesting to be added to the project list are documented in the comment log and are not included in this document; all other written and verbal communications are included.
- Comments are organized by sub-topic in order to ensure responses to all comments.
- Documents referenced in responses can be found in the Document Library on the project website: http://www.dot.alaska.gov/creg/sewardairport/index.shtml

ACQUIRE AIRPORT

Comments:

"I think it would also be a good idea for us to explore ways for us to take local control of the asset itself." Susi Towsley (08/15/19), City Council, resident. Hearing testimony

"I've talked to a lot of people tonight about this, and there's really only one solution: Seward must take ownership of the airport, if you want Alternative 1.1...From what I can tell...If you want 1.1, you need to own the airport...I haven't heard anybody say anything other than 1.1. Well, if we want 1.1, then we got to own the airport." Lynda Paquette (08/15/19), Board of Commerce Authority Commission for the City. Hearing testimony

"I support 1.1, and also, possibly purchasing the airport...maybe this is the time that we take care of our own airport and purchase it and maintain it ourselves, so that we can keep our emergency stuff, have the runways because of the air, which way the wind blows" Sharyl Seese (08/15/19), City Council, resident. Hearing testimony

Response:

Acquisition of the Seward Airport by the City of Seward is not an alternative addressed in this Environmental Assessment as it has not been presented as an alternative. It is therefore outside of the NEPA scope of analysis for the proposed project. If the community wants to pursue this option, the City should work with the Alaska Department of Transportation and Public Facilities (DOT&PF) Central RegionPlanning and FAA. The process of transferring ownership is complicated and requires FAA approval. Any such formal proposal needs to be sufficiently detailed to define how acquisition of the airport by the City of Seward is a reasonable and a practicable alternative as defined by the Council on Environmental Quality in relation to NEPA analyses.

ALTERNATIVE 1.1

Comments:

He had been reviewing the Scoping report and felt alternative 1.1 was the best option but didn't understand why that alternative wasn't presented at the public meeting. I pointed him to the EA appendix B (which he opened while we were on the phone) – He felt the best option was to construct 1.1 so the raised and enforced runway (13/31) would be a protective dike protecting the ARRC and city harbor. Steven Leirer telephone call documentation (02/13/19). Telephone call with PDC Engineers (PDC)

- "I support Alternative 1.1." "Please listen to the majority of Seward citizens that support 1.1." Ann C. Ghicadus (08/15/19). Hearing written comment
- "...the communities would like is more analysis of Alternative 1.1. That alternative would be the -- you know, just building up the existing runway, is the one that I don't -- it was dropped. Not from public testimony." Bob Linville (08/15/19), Resident, Pilot. Hearing testimony
- "...we would like to reopen the conversation, the scoping part where you pick the alternative. I haven't heard any reason...why you can't continue with 1.1. You can't buy the property out there that hasn't been developable since 1964. That's not an adequate reason. It needs to be further analyzed." Bob Linville (08/15/19), Resident, Pilot. Hearing testimony
- "...the Seward community supports Alternative 1.1 or some variation of it, period. I was not alone in rejecting Alternative 2.2 as selected by the Seward Airport ADOT Planning Team." Bob Linville (08/20/19). Email to Solstice with letter attached
- "Admittedly, keeping flow directed as it is now by elevating and reinforcing Runway 1.1 will result in increasing flood levels to the east. The FIRM Map will need modification and a LOMAR requested. Some privately held parcels will be affected, mostly in the now entirely vacant Riverside Subdivision.

Please refer to the following caption from "Figure 14, 100-year flood map for Existing Conditions" in the documents: "The private parcels in the middle of the Resurrection River floodplain are almost completely inundated as well, but that inundation is primarily due to the effects of coastal flooding from the 1-percent-annual chance tide event". Alternative 1.1 will inundate these properties during 100 year flood events, but most of these subdivision lots are already in that condition now due to earthquake caused elevation drop and tidal flooding. Several other parcels are publicly owned.

Access and flooding have prevented any building since 1964 which will be taken into account should condemnation become necessary. There is a native allotment in the vicinity but its location is considerably above the project and it may be in an elevation that is not affected or could be mitigated. We need much more analysis of each of these issues." Bob Linville (08/20/19). Email to Solstice with letter attached

"I wholeheartedly agree with Bruce Jaffa's statements concerning the outcome of these "improvements." They should not result in an airport that is smaller and less functional than what we have had in the past." Patricia Linville (08/19/19). Email to Solstice

"There are decades, probably hundreds of years of experience with that airport, in this room, that know far better than me to best manage this, but it's clear that this community isn't being heard as

Seward Airport Improvements Responses to Public Comments Received During the Draft EA Phase: December 2018 – August 2019

far as what our needs are and what our wishes are with that asset at the airport, and so I support Alternative 1.1; I think most people do." Susi Towsley (08/15/19), City Council, resident. Hearing testimony

"...I'm also in favor of 1.1. There's engineering solutions that will make that work. I've read mixed things from the State about the Army Corps of Engineers. I've read originally that they were in favor of 1.1." Tyler Pelo (08/15/19), Resident. Hearing testimony

"I think that the long runway...the option 1.1 being eliminated early was shortsighted." John French (08/15/19), Resident, formerly with the Historic Preservation Commission. Hearing testimony

"I'm in support of revisiting Alternative 1.1." Jan Bukac (08/15/19), Resident. Hearing testimony

"...the Port and Commerce Advisory Board for the City of Seward voted and supports Alternative 1.1..." Christy Terry (08/15/19), Port and Commerce Advisory Board for the City of Seward. Hearing testimony

"...I would like to support Alternative 1.1." Carol Griswold (08/15/19), Resident. Hearing testimony

"I am really in support of Alternative 1.1" Sharyl Seese (08/15/19), City Council, resident. Hearing testimony

"I support Alternate 1.1 and the repair and protection of the existing 4200 LF Runway. The community of Seward Social and Economic future will be negatively impacted by the preferred Alt 2.2. I support the Seward Airport repair plan that will maintain the full 4200 ft. runway at its original design load. I support the DOT Alternate 1.1 that has been reviewed and supported by the City Council, 3 City Managers, Public testimony the PACAB Advisory Board, users, local businesses and more. I support efforts to enlist partners to control the Resurrection River and its meanders that threaten the marine developments in Seward and contribute to the current damage to the Airport." Bruce Jaffa (08/15/19). Email to Solstice Alaska Consulting, Inc. (Solstice)

"Alternate 1.1 is feasible if certain things happen." Bruce Jaffa (08/15/19), Property owner, resident, pilot. Hearing testimony

"I support the...repair plan that will maintain the full 4200 ft. runway at its original design load. I support the DOT Alternate 1.1 that has been reviewed and supported by the City Council, 3 City Managers, Public testimony the PACAB Advisory Board, users, local businesses and more. I do not believe the data that has been gathered is complete, accurate or leads to the conclusion the DOT has suggested. I support efforts to enlist partners to control the Resurrection River and its meanders that threaten the airport and other marine developments in Seward and contribute to the current damage to the Airport. Where Alt. 2.2 and 3.0 are not acceptable, the Alternate 1.1 enjoys support from Pilots, FBO's, commercial interests in Seward, Environmental community. This broad support should mean something...I ask that AK DOT not expend more State funds or apply for available Federal funds at this time until a long range plan is developed that will meet expected Social and Economic growth needs of the Seward Community. This statement is intended to represent my views, however I have personally contacted a dozen organization including AOPA, Alaska Airmen's, Alaska 99, Chamber of Commerce, KPEDD, Local FBO' Local Pilots, Commercial interests and all parties do not accept the logic that less is more. Anything shorter than what is currently in place is a step backwards. It is disappointing to learn that after 5 years of effort AKDOT has not fully described the obstacle to rebuilding the current 4200 ft runway...it becomes apparent that the solution requires action in the Resurrection River that can not be performed by AKDOT. Rather

than finding an agency or method to resolve the river problem Alternate 2.2 was selected as expedient. The community and working groups in Seward believes that help may be available to allow funding 1.1. Value engineering of the runway repair can mitigate the flooding! problems and provide quality construction at a cost below the! Alternate 2.2. It would be important for AKDOT to actual be willing to in in a problem solving action. They should Bring, budgets, jurisdictional rules, creative solutions and discuss the real needs of the community, with the community in formats that fully allow interaction." Bruce Jaffa (8/24/2019), Resident/Pilot/Business owner. Email to Solstice

"...I think we have 4220 feet of runway right now, and anything less than that is going backwards. We, as citizens, have asked our state to rehabilitate our runway. We never expected them to diminish it. The current plan, 2.2, will, in fact, diminish it...So it's as simple as us, as a community, telling our Department of Transportation and the FAA, who's the one that's listening to this, that the community of Seward believes that the long-term interest of Seward is a 4200-foot runway, nothing else." Bruce Jaffa (08/15/19), Property owner, resident, pilot. Hearing testimony

"The public prefers Alternative 1.1. Its up to you, the government professionals who know the law and process better than anyone...serve the legitimate and defensible interests of the public." Mark Luttrell (8/25-26/2019). Email to Solstice

"The long runway needs to be looked at closer. I know it was evaluated, apparently, on the environmental concern, and it was set aside, but as I mentioned previously, I think the environmental problem was committed primarily by the contractor working for FEMA that was approved by FEMA. It's outside the scope of this project, but that's the contributing factor." Jim McCracken (08/15/19), Resident. Hearing testimony

Response:

Alternative 1.1 was studied in depth during the scoping phase of the project and was taken into consideration during the environmental stage. There were many factors that were considered when evaluating whether or not to carry Alternative 1.1 forward as the Proposed Alternative. The following is a brief synopsis. See the final EA (Section 3.2.1 and Appendix B), Position Paper: Seward Airport Improvements Selection of the Design Alternative, Scoping Report (including Appendix B. Final Hydrologic and Hydraulic Report ,July 2016), and the Final Resurrection River Excavation Memo for more detail.

- 1. A capacity analysis shows that only one runway is needed to accommodate current and near-term air traffic. The design team collected aircraft traffic information over a period of several years, including several years before the weight restrictions were put into effect for the main runway.
- 2. Existing and near-term air traffic can easily be accommodated with a single 3,300-foot runway. There is not enough existing or forecasted large aircraft to meet the FAA requirements for justifying a longer runway, as detailed in FAA order 5200.38D, Advisory Circular (AC) 150/5000-17, and AC 150/5325-4B. As a result, FAA will only provide funding for the construction of a 3,300-foot runway.

3. Permitting Issues:

A. Flood permit:

1. Runway 13/31 is contained within a Regulatory Floodway as shown on the Flood Insurance Rate Map (FIRM Map). According to FEMA's definition of a Floodway, *any*

- fill within a mapped Regulatory Floodway will require engineering calculations to prove than no increase in the Base Flood Elevation (BFE) within the community will occur otherwise a map revision is required to show the new BFE produced by the fill. (This was not the case for the recent FIRM revision completed by the Alaska Railroad. Their property was not within a regulatory floodway).
- 2. A Map revision also requires public approval and mitigation. Flood studies were prepared by a licensed, experienced Hydrologist (see the Scoping Report on the project website), and checked by the DOT&PF's Regional Hydrologist. The flood studies indicated that Runway 13/31 will need to be raised up to 4 feet at several locations, resulting in the flooding of an additional 160 acres of property. While some of these properties are vacant, some are not. Many of the properties within the river should currently be developable, since they are not located within the floodplain or floodway, according to the current FIRM map. Construction of Alternative 1.1 will change that status via a "taking"*, while construction of Alternative 2.2 will not. Mitigation of newly flooded properties would likely require them to be purchased, including a Native Allotment. Purchasing Native Allotments requires acquisition by BIA rules and takes typically 7-10 years to complete. Flood studies show that the Native allotment will be additionally flooded by raising the runway.
 - * A taking is defined as "a seizure of private property or a substantial deprivation of the right to its free use or enjoyment that is caused by government action and especially by the exercise of eminent domain and for which just compensation to the owner must be given according to the Fifth Amendment to the U.S. Constitution." The construction of Alternative 1.1 and resulting flooding of non-DOT&PF (Airport) property would require either the Federal or State government to address the "taking" of the use of the 160 acres of property via a potential variety of mitigation such as the procurement of the affected properties.
- 3. Revising the FIRM map is likely not feasible due the required public approval. Affected property owners will likely see an increase to their flood insurance. The acquisition of the affected properties will incur time/expenses, exceeding the effort required by the Alaska Railroad when they revised the FIRM map.

Alternative 2.2 does not require a FIRM map revision but will require a Floodplain Development permit. Please see Appendix B of the Final EA for further discussion of this issue.

B. Alaska Department of Fish & Game (ADF&G) Permit:

Raising the runway will impact fish habitat due to extending embankment slopes into the river and construction of flood protection on the river side of the runway. The Alaska Department of Fish and Game supports Alternative 2.2.

C. Alaska Department of Natural Resources (ADNR) Land Use Permit:

The state has ownership of the beds of navigable waters in Alaska. The Resurrection River is classified as a navigable water. ADNR expressed concerns about maintaining navigability during construction of this alternative. The river would need to be temporarily diverted to reconstruct the runway and install armor protection in the river. Maintaining navigability would be a challenge.

D. <u>U.S. Army Corps of Engineers (USACE) Permit</u>:

The USACE representative indicated that wetland impacts was only one of many considerations the USACE uses to grant a permit. While Alternative 1.1 impacts less wetlands than Alternative 2.2, it produces other environmental challenges that Alternative 2.2 does not, such as significant flood impacts and river impacts from construction.

- 4. National Environmental Policy Act (NEPA) Documentation: Alternative 1.1 would potentially result in "significant" impacts as defined by DOT Order 5650. FAA guidelines for implementing the NEPA including FAA Order 1050.1F and the 1050.1F Desk Reference state that an alternative with a significant floodplain encroachment should not be selected if a practicable alternative exists. The result may require the documentation associated with an Environmental Impact Statement (EIS) versus an Environmental Assessment (EA), adding significantly to the cost and schedule for the project. Alternative 1.1 may not be approved due to significant impacts, if an EIS is prepared. Whereas Alternative 2.2 qualifies for an EA per coordination with FAA. Flood impacts need to be mitigated before flooding severely impacts the airport.
- 5. <u>Construction Impacts</u>: Raising the runway and installing armor protection will be challenging. Construction will require a temporary diversion of the river to place fill and erosion protection. Also providing alternative use for medivac aircraft operations will be problematic as the existing crosswind runway is not long enough to accommodate this aircraft.
- 6. <u>Safety Impacts</u>. Leaving the runway where it currently is will require obtaining permission from FAA Headquarters as the Seward Highway, the airport access road and the railroad all penetrate the approach slope and impact the Runway Protection Zone (RPZ) for Runway 13. FAA will likely not approve the request since Alternative 2.2 eliminates obstructions in the Approach Surface and significantly reduces impacts to the RPZ for Runway 16.
- 7. <u>Maintenance</u>: DOT&PF does not have sufficient funding to maintain extraneous infrastructure. Budget cuts over the last few years have impacted its capacity. Regular repairs to Runway 13/31 from flooding has significantly impacted its budget.
- 8. <u>Schedule</u>: The additional permitting effort/documentation/analysis for Alternative 1.1 would result in a lengthy extension of the project schedule. At this time, the entire airport is at risk from recurring flooding or a damage from a major flood.
- 9. Resurrection River Management Solutions: Regardless of the Alternative analyzed, solutions that involve managing Resurrection River hydrology/hydraulics and resulting channel location(s) are outside the scope of analysis of this project and the resulting EA. Effort beyond armoring of Runway 13/31 is beyond what FAA or DOT&PF will fund and is beyond FAA's authority. "

Alternative 2.2 does not have the impacts described above, which is why it was selected as the preferred alternative. Runway 16/34 can be extended to 4,000 feet when the number of large aircraft reach FAA's threshold of 500 operations annually.

Responses to Public Comments Received During the Draft EA Phase: December 2018 - August 2019

ALTERNATIVE 2.2

Comment:

"I support proposed action-Alternative 2.2." Lori Landstrom (08/15/19), Resident. Emailed the Alaska Department of Transportation and Public Facilities (DOT&PF)

Response:

Comment noted.

OTHER ALTERNATIVES (ALTERNATIVE 3.0, 4,000-FT RUNWAY, NEW ALTERNATIVE)

Comments:

"...alternate...3.0, is a pie in the sky, which would extend the runway to a possible 4000 feet at tide edge. That 4000 feet would be lapping water at high tides and in the wind. That's never going to happen...and I think most of us...in Seward would agree with that." Bruce Jaffa (08/15/19), Property owner, resident, pilot. Hearing testimony

"My argument is that DOT should abandon its plans of making the Short runway the primary runway, which would be extended at a later date. This runway would crowd the current Alaska RR dock and industrial area, and result in a flight pattern going into shipping lane traffic. The river still has the potential to wash out a new runway, if it were to change channels." (First name not provided) Leirer (08/10/19). Email to Solstice

Response:

Thank you for your comments regarding Alternative 3.0 and lengthening the runway. Alternative 3.0 was not evaluated in the Draft EA as it was dropped during the scoping phase because it exceeded the runway requirements needed to meet the near-term demand and because there was no funding source to achieve it. However, during the preliminary evaluations, extension to 4,000-ft was included in the extensive hydrologic analysis completed by a licensed professional hydrologist. FEMA was consulted as well as a licensed coastal engineer. The option to lengthen the proposed action to 4,000-ft is considered viable.

The lengthened section of runway would be built to the appropriate elevation to protect against flooding from the river as well as Resurrection Bay. Type III riprap armor, similar to what Alternative 1.1 would have required if it had been carried forward as an alternative in the EA. Furthermore, DOT&PF has coordinated with the City of Seward and the Alaska Railroad to identify future land uses. These future land uses were taken into account when developing the new runway alignment and are discussed in Section 5.5 (Land Use) and Section 5.10 (Cumulative Impacts) of the EA.

Comment:

"The current design calls for an eventual length of 4,000 to this runway. The land necessary for such a length is being acquired for this anticipated length. One of the statements made was that to undertake the full 4,000-foot runway at this time would slow down the proposed project down due to the CLOMR/LOMR process. At this point we are not convinced that these studies and revisions will not be necessary with the current project length of improvements to 3,300 feet." Jeff Bridges (01/02/19), City of Seward. Letter to Solstice

Response:

FEMA regulations allow for an increase up to 1 foot to the BFE within a mapped floodplain, outside of a regulatory floodway. Alternative 2.2 is located completely outside of the floodway. The average BFE increase, from constructing this alternative, is well under 1 foot. Therefore a FIRM map revision is not necessary.

A Letter of Map Revision (LOMR)/Conditional Letter of Map Revision (CLOMR) process is required for extending Alternative 2.2 to a 4,000-ft runway because it will impact the area of the map designated as VE or Velocity Zone. This area accounts for storm surges from Resurrection Bay. To build into the VE Zone on the FIRM map, FEMA requires that the area become re-designated on the FIRM map to an AE zone (indicates that Base Flood Elevations have been determined) Flood studies show that the increase to the BFE for this alternative is less than one foot, so the FIRM map will not require revisions to account for an increase to BFE. The LOMR/CLOMR process for this alternative will be simple compared to the process required for Alternative 1.1 and will be similar to the one completed by the Alaska Railroad.

Please see Appendix B of the Final EA for a thorough review of the FIRM Map criteria.

Comment:

"The FAA has also determined that airport usage rules preclude them from funding any runway project in Seward longer than 3300 feet. I don't believe that restriction existed when Alternative 1.1 was first discussed in the documents. Should this become an obstacle to the funding of Alternative 1.1, I suggest that a new Alternative 4 be created which would raise and protect the southeastern 3300 feet of Runway 13-31, blending in that profile with the existing northwestern 940 feet thus allowing continued use of the full runway. The northwestern section is protected from the river by slightly elevated tree covered land to the north that has suffered minimal flooding to date. Yes, we would much rather see the whole of Runway 13-31 included in one project. But as you heard at last week's meeting, this community is not willing to accept Alternative 2.2. We support the necessary FIRM revisions, and feel that these revisions must be done in any event. Attention needs to be given to which properties are vital to Seward's economy and heavily used by citizens, and which are vacant, lack access, have suffered flood damage already, and stand in the middle of Resurrection River braided outwash plain unprotected by dikes of any kind. The cost of protecting the latter exceeds their value massively. The economy of Seward and our quality of life should not be sacrificed in order to maintain the facade of their protection." Bob Linville (08/20/19). Email to Solstice with letter attached

Response:

Thank you for your comments regarding a new alternative. FAA's funding criteria that preclude funding Alternative 1.1 have not changed over the life of this proposed project. Runway length criteria as defined in FAA Advisory Circular 150/5325-4B have not changed since 2005.

Alternative 1.1 considered raising the elevation of Runway 13/31 only where needed to bring the runway two feet above the 100-year flood plain, while ensuring the longitudinal gradient meets FAA standards (AC 150/5300-13A). This was as much as 6 feet in some portions, and average of 4.4 feet overall. There is not an acceptable engineering solution in the 13/31 alignment that alleviates the flooding issues or other environmental impacts associated with Alternative 1.1, which ultimately led to it being eliminated.

In terms of project funding, if the 13/31 alignment was preferable from standpoints of cost, safety, efficiency, and environmental impacts, FAA funding would be limited to the lowest cost portion of the project that supports the currently justified aeronautical need. This would be the northwest 3,300'. The southeast portion (toward Rwy 31 end) would not currently be justified for FAA participation, and would have to be funded from other sources.

Multiple criteria led to Alternative 2.2 being chosen as the Proposed Alternative over Alternative 1.1, only one of which was the FIRM revision. Please see Appendix B of the Final EA for a thorough review of this criteria.

Regarding the "...FIRM revisions...must be done in any event." Alternative 2.2 avoids many of the impacts of Alternatives 1.1 and 3 including the level of FIRM revision required by Alternative 1.1. FAA cannot expand the scope of a project to incorporate costs and processes beyond those required for the project. In other words the FAA cannot expend federal tax dollars to complete work not required for a project.

FAA's role does not extend within or outside this EA to determining for property owners if their property is or is not worth preserving/protecting. Nor, did the analysis in this EA attempt to make such a determination. As noted in relation to a prior comment the implementation of Alternative 1.1 is expected to result in a taking determination and require some form of easement or purchase of affected properties. Alternative 1.1 was dismissed in part due to the costs and time constraints involved with resolution of a "taking" of other properties.

Comment:

"P 34 "Proposed Action consists of a 3,300 foot Runway, but will also include the necessary property acquisition and planning for a potential future RW extension to 4,000 feet." Where in the Plan is the additional planning and required compliance with the Mitigation Rule? Extending the RW another 700 feet across the salt marsh and barrier high salt marsh berm involves massive jurisdictional wetland and biological resources destruction." Carol Griswold (01/09/19). Email to Solstice with attached letter, image files

Response:

Any future development to extend the runway beyond 3,300 feet will need to follow the same NEPA documentation (if federal FAA money is used) and permitting requirements currently being undertaken for the 3,300-foot runway. The word planning has been removed from the document in association with the extension of the runway to 4,000 ft.

CLIMATE CHANGE

Comments:

"Why was climate change not addressed? Changing weather patterns and rising sea levels will have a major effect on this runway. Doing a 3 hour assessment in September is not adequate! Come back in the winter when the fields are flooded, icebergs are stranded on the current runway, the wind is howling. Come back in the spring see the salmon, bears and birds that all call this fragile ecosystem home." Tasha DiMarzio (01/09/19). Email to Solstice with attached letter, image files

"P 8 Table Climate: It is a travesty that the effects of climate change shall not be considered for this project. There will be increased frequency and severity of flood events and sea level rise at the airport. The project will have to accommodate these irreversible impacts by another name. Is raising the new RW 16-34 above the current 100-year flood level with only 2' of freeboard high enough?" Carol Griswold (01/09/19). Email to Solstice with attached letter, image files

Response

Thank you for your comments. Per 40 CFR 1502.16 and 1508.25 federal agencies limit the scope of effects analyses and discussion of effects analysis to significant or potentially significant impacts (40 CFR 1508.27). Therefore, FAA review of the proposed projects and potential effects resulted in the sponsor (DOT&PF) being advised to prepare a Focused Environmental Assessment. Meaning FAA determined which resource categories were likely to result in significant or potentially significant effects are directed DOT&PF to focus on those resource categories in the EA. The resource categories FAA determined to be "non-issues" in relation to known or potential significant effects are listed in Appendix C. Climate Change was one of those non-issue categories therefore it was not addressed in the EA other than in Appendix C.

Current federal guidance regarding analyses of Climate impacts, Executive Order 13783. which revoked in part Executive Order 13653 and the Council on Environmental Qualities final guidance entitled "Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews",) required FAA to resume addressing climate impacts as defined in FAA Orders 1050.1 F and 5050.4 B. FAA Order 1050.1 F, Chapter 3, Section 3.2., notes circumstances under which qualitative versus quantitative analyses for greenhouse gas (GHG) and climate change (CG) issues may be applicable. For this project FAA applied qualitative analyses for the following reasons. Section 3.3.1., 1. notes the circumstances that would result in no increase in greenhouse gas emissions and therefore, the lack of a need for further analyses. FAA qualitatively assessed temporary and permanent GHG/CG impacts in relation to the overall impact of aviation as noted in 1050.1F. Chapter 3. Section 3. Qualitatively evaluating the limited input of GHG's from aviation activity at the Seward Airport as it currently exists and considering that the proposed project (Alternative 2.2) does not increase aviation use of the airport over the existing condition, in regard to permanent impacts, FAA concluded that nothing more than a qualitative analysis was required and that no known significant GHG impacts would occur. FAA also considered temporary impacts of GHG's/CG in relation to construction and reached the same conclusion.

Regarding the effects of GHG emissions/CG from the proposed project (Alternative 2.2), FAA also qualitatively determined that the proposed project (Alternative 2.2) would result in no known significant or potentially significant impacts related to the existing rate of sea level rise, erosion, frequency/severity of flood events, frequency/severity of storm events, etcetera.

DOT& PF notes that the current project design does include safety factors, where feasible, to reduce future impacts associated with flooding and storm surge as does the existing 13-31 runway. The proposed project has no effect on the potential rate and severity of riverine erosion or flooding within the area around the airport. It does however reduce the frequency with which runway and taxiways under Alternative 2.2 would not be useable due to flooding by raising these surfaces.

CULTURAL AND HISTORIC RESOURCES

Comments:

"...there is a number of historic, potentially historic items that are there. The runway, itself, is fifty years old, which makes itself a historic asset...look at early Russian maps, there's a number of Native villages that dawned around the northern end of Resurrection Bay there. Yes, they'd be hard to find, but that doesn't mean you shouldn't prepare to try to deal with them, if you do happen to find them. It's called 'opportunistic discovery'. So I think that's important. I don't support any abbreviation of Section 1.06 for that reason, which looks at the historic and cultural importance of the area." John French (08/15/19), Resident, formerly with the Historic Preservation Commission. Hearing testimony

Response:

NEPA requires that the regulatory agency (and expert) that has jurisdiction over this resource (cultural and historic resources) is consulted. The State Historic Preservation Officer (SHPO) was consulted on this project throughout the project to comply with Section 106 of the National Historic Preservation Act. The SHPO concurred on June 14, 2018 with a finding of no historic properties affected.

See the Decisions/Involvement Process/Comment Schedule section of this document for a list of regulatory agencies that have been consulted throughout the EA process, including the SHPO.

DESIGN - GENERAL

Comment:

"There is a need for a short gravel strip to accommodate bush tires. Perhaps alongside the main runway. Talkeetna has a great option alongside the main runway that is heavily used. Landing on the hard surface with bush tires is very costly." Duke Marolf (01/01/19). Email to Solstice

Response:

Occasional use by bush tires-equipped aircraft is generally an operations procedure coordinated between operators and the DOT&PF Maintenance & Operations (M&O) Section. Landing anywhere other than the runway is always at the pilot's discretion and risk.

The size of this runway's shoulders is the same as those in Talkeetna. Presently, the difference is that for Seward, it is proposed to use recycled asphalt to surface the shoulders to reduce costs' whereas Talkeetna's airport shoulders are gravel. Your comment has been passed along to FAA for consideration during the detailed design process.

Comment:

"Figure 2: Recycled asphalt should not be used as end of runway riprap or slope armoring as this will negatively impact the salt marsh ecosystem. Minimize hardened surfaces at every opportunity to allow the existing vegetation to mitigate floodwater and rainwater runoff."

"Figure 2: south end of the current apron, taxiway F (T/W F): Do NOT clear all of the Spruce trees! The trees in this area serve as an important storm and windbreak for the airport and help protect parked planes and buildings from south and crosswinds. It is also habitat for wildlife and perches for Bald Eagles, owls and other migratory birds." Tasha DiMarzio (01/09/19). Email to Solstice with attached letter, image files

Response:

Thank you for your comment. Recycled asphalt paving (RAP) is not proposed for riprap or slope armoring as it does not meet the required specification for these materials, (i.e., RAP is not large enough to withstand the river velocities). Riprap/slope armoring is composed of large boulders/rocks. Clearing is limited to areas of the airport needed for construction of new improvements and to remove airspace obstructions (per FAA regulations). These areas include the area south of the current apron and Taxiway F.

Comment:

"Comments on Errata Sheet: Reinforce abandoned RW 13-31 as a protective levee. Delete security fence extension to south into tidally influenced wetlands. Delete float plane channel and access road. Remove material off-site, not on native vegetation or wetlands within airport boundaries. Selectively clear and grub a much-reduced footprint." Carol Griswold (01/09/19). Email to Solstice with attached letter, image files

Response:

Your comments are aimed at design elements that are either needed to provide for airport functionality or safety. During the detailed design, minimizing "grubbing" is inherent to the design process to minimize erosion and sediment control. Fill into wetlands is avoided to the extent practicable, considering long-term protection of the airport and location of particular features such as wind cones to provide the pilots with information for safe operations. Fencing is required to eliminate airport trespass by people and animals. The design team will go back and look at the feasibility of fencing in this area to ensure possible flood impacts have been mitigated. The float plane channel was requested by several pilots since the new runway will prevent access to the area they now use.

Comment:

"Page 1: This Alternative extends the existing 2,289 foot runway length by 1,011 feet to 3,300 feet to accommodate current and near-term aircraft in use, including medevac operations. Does this plan have a backup if the private landowner, Leirer Family Limited Partnership, refuses to sell? I understand the land acquisition is needed for airspace protection to the south and for a possible controversial runway extension to 4000'." Carol Griswold (01/09/19). Email to Solstice with attached letter, image files

Response:

Options will be considered during acquisition.

Comment:

"Figure 2: I appreciate the removal and reuse of asphalt from abandoned runways, aprons, and taxiways. I encourage DOT to minimize hardened surfaces at every opportunity to allow the existing vegetation to mitigate floodwater and rainwater. This includes the area at the north end of the airport, ie the triangular purple area on the figure. At the December 12, 2018 Seward Open House, I was informed this area is intended to be raised, paved, and bermed to serve as a floodwater deflector to protect the runway from upstream flooding. However, a storm water vegetation berm on that north edge, leaving the rest vegetated, would help deflect potential flood water, help absorb surface water year-round, and help protect airport infrastructure and the road. Update: according to the errata Sheet, this staging area was removed, however, it is still noted as a Material Disposal area." Carol Griswold (01/09/19). Email to Solstice w. attached lttr, image files

Response:

The exact size of this feature will be determined during the design process, but the berm to the north is expected to be constructed from unsuitable excess embankment from the existing runway 16/34. The river facing side will be armored and the remainder will be revegetated.

Comment:

"Recycled asphalt should not be used as end of runway riprap or slope armoring as this will negatively impact the salt marsh ecosystem. Only clean rock should be used." Carol Griswold (01/09/19). Email to Solstice with attached letter, image files

Response:

Recycled asphalt (RAP) is not proposed for riprap or slope armoring as it does not meet the required specification for these materials, (i.e., RAP is not large enough to withstand the river velocities); riprap/slope armoring is composed of large boulders/rocks.

Comment:

"To comply with the Mitigation Rule, do NOT permit any materials to be dumped here or anywhere else at the airport property on the native vegetation. Haul the materials to the landfill. Use only clean rock for end of runway riprap and armoring." (Griswold referenced the Errata Sheet). Carol Griswold (01/09/19). Email to Solstice with attached letter, image files

Response:

Fill into wetlands is avoided or minimized to the extent practicable, considering long-term protection of the airport and location of particular features such as wind cones to provide the pilots with information for safe operations. Any wetland impacts will require permitting, including the requisite mitigation/compensation.

Comment:

"Figure 2: Wind Cone location: this is a very popular spot for helicopters. If a weather station is colocated, will their rotor wash affect the weather station readings? Is there a more appropriate location for the wind cone, perhaps on the east side of the runway?" Carol Griswold (01/09/19). Email to Solstice with attached letter, image files

Response:

There were other locations considered for the Automated Surface Observing System (ASOS) and the wind cone. However, the current location utilizes previously disturbed ground and meets FAA guidance for separation distance from the helicopter use of the apron. The weather station and wind cone are not co-located.

Comment:

"Figure 2: Consider placing Secondary Lighted Wind Cone to the east of the new runway where it would be more accurate. It will need to be elevated above the tide line." Carol Griswold (01/09/19). Email to Solstice with attached letter, image files

Response:

Other locations were evaluated for the secondary lighted wind cone. The current location was selected to provide protection from flooding and to minimize environmental impacts. The proposed location still requires clearing to remove airspace obstructions.

Comment:

"Move the Secondary Lighting Cone farther east, delete impractical security fence extension, leave the trees and shrubs. The small pond to the northeast on Civil Air Patrol property should have at minimum, a 50' natural vegetation buffer around it. Instead of clearcutting the trees, they should be carefully evaluated and cut selectively. Wherever possible, the cottonwoods should be shortened, not stumped, and as much of the natural shrubs including alders and willows retained. As in many Alaska airport descriptions, potentially hazardous obstacles should be noted, not cut." "P 5: Purchase of the 39-acre Civil Air Patrol Land "will ensure that trees are not cut down thereby adding to the prevention of streambank erosion near the airport." While I appreciate the thought of protection of these trees which include bald eagle, great horned owl, and other nests, this is a misleading statement. The Errata Sheet Figure 2 shows that trees including the fringe of cottonwoods along Airport Road and the alders and other trees and shrubs WILL be cleared and grubbed cut on the west side. Most of the rest of the CAP land is marked for clearing and selective clearing. It is not apparent what each of these actions entail, but it is NOT protection. Minimize this action by leaving a 50' wide buffer of native vegetation around the small wetland pond, minimize the number of trees cut, and consider topping instead of stumping." Carol Griswold (01/09/19). Email to Solstice with attached letter, image files

Response:

Clearing is limited to areas that are required to be cleared to construct improvements and prevent air space obstructions, per FAA guidance. Selective clearing will be employed versus clear cutting to the extent practicable. A buffer around the pond is also planned. Topping may not be a practicable option, but it will be further considered in the design process. A buffer of trees on the CAP property, adjacent to the river, will remain untouched directly for the purpose described in the EA.

Comment:

"P 41-42 5.9.1.3 Minimization and Mitigation Since the airport is built in a wetland/upland complex, it is not possible to avoid wetlands. However, every foot of the proposed runway that can be pushed north, away from the tidal marsh, makes a huge difference. Move the runway north; every foot would to help reduce the impact of any extension into the tidal marsh. I hope the planners will consider this and any other options to move the runway back from the fragile tidal marsh. Minimize impact to wetlands: Move RW 16-34 north. Reduce length. Use steeper side slopes if possible. Use clean rock, not recycled asphalt products." Carol Griswold (01/09/19). Email to Solstice with attached letter, image files

Response:

The location of the runway threshold is limited by airspace restrictions to the north including the Seward Highway, power lines, the railroad, terrain and trees. The proposed threshold location eliminates obstructions into the Approach Surface for Runway 16.

Comments:

"Removal of TW A, D, and E may indeed help reestablish hydrological connectivity. Regrading of the 0.3 acres may result in 0.3 acres of weeds, quick to establish on disturbed, exposed ground, unless reseeded with appropriate native plants. Minimize impact: place material stockpiles on already hardened surfaces in the uplands instead of on native vegetation. Remove excess materials off-site; do not store on site." Carol Griswold (01/09/19). Email to Solstice with attached letter, image files

"The contractor must be required to revegetate with native seeds otherwise it will be a direct placement of invasive weeds, as per page 51 "using only certified seed mixes on projects and BMP for cleaning construction equipment prior to transport to project sites could mitigate establishment of invasive species." Carol Griswold (01/09/19). Email to Solstice with attached letter, image files

Response:

DOT&PF has location specific seed mixtures, which will be specified for this project. Additionally, weed free certifications of the seed is required. Material storage is not allowed on wetlands except in areas where wetland impacts have been permitted for other project purposes. Material storage on wetlands will be avoided if possible.

DESIGN - RUNWAY LENGTH REQUIREMENTS, DEMAND, AND AIRCRAFT USE

Comments:

"It's economically shortsighted to have anything less than 4200 feet in here. That's accelerated to stop on the balanced field for a 737 is 4100 feet under special ops, and they'd prefer 5800. And as far as the instrument approaches go, if they'd realign the runway a little bit, so that it was going up the valley, they could drop the minimums a lot." Michael Irving (08/15/19), Resident, pilot. Hearing testimony

"According to previous plans, operations at this airport have not increased, and growth may even be negative. This is a very low-use airport primarily serving small private planes, three seasonal helicopter tour companies, and a single medevac operator. Is a 3300' runway justified?" Carol Griswold (01/09/19). Email to Solstice with attached letter, image files

"Since I'm not a pilot I don't know if the proposed length of the RW 16-34 would be long enough for lear jets to land and take off. I ask that you make sure the length and orientation of RW 16-34 accommodates the occasional use by Beech 1900, Dash * and small charter business jets." While preserving the wetlands as much as possible. And rehabing the removed RW13-31." Lori Landstrom (08/15/19), Resident. Emailed DOT&PF

Response:

Thank you for these comments that pertain to runway length requirements, demand, and aircraft use. FAA design guidance requires that the size of an airport's facilities correspond to the most demanding aircraft called the critical aircraft (or family of aircraft) that regularly use the airport (currently or in the near-future). Regular use is defined as 500 operations (landings or takeoffs) each year. The project team researched operations at the airport for the past several years.

As a result of this research, the team determined that the most demanding aircraft (critical aircraft) at the Seward Airport is the King Air B200, which is used for medical evacuations, and maybe used for passenger and cargo service as well. The 3,300-foot runway would

accommodate the King Air B200. Larger aircraft (jets) do not come close to meeting the 500 operations requirement. Therefore, a finding of this project is that existing and near-term future use of the airport (aviation demand) would be met with one runway that is 3,300-ft long.

However, the new runway will be strong enough to accommodate larger aircraft, if they are partially loaded. The number of annual operations by aircraft larger than the Group II aircraft can be used to establish a need for a longer runway in the future. Alternative 2.2 allows for an extension of the runway to 4,000 feet when large aircraft operations are high enough to justify an extension by increased existing or verifiable forecasted demand. Extension of this runway in the future is expected under that circumstance to then qualify for FAA funding.

DESIGN - EXISTING LONG RUNWAY

Comments:

"The long runway currently, with past maintenance rip rap, is holding the River back. The Long runway is the only barrier holding the river, which wants to cross the runway and flow into the Alaska RR Docks and Seward boat harbor. This long runway should be salvaged, by heavy brakewater type rip-rapping, and finger dykes installed to force the river away from the Airport, The long runway, should be raised 5 or 6 feet and leveled and make into Seward's main airport runway." (First name not provided) Leirer (08/10/19). Email to Solstice

"PROPOSED SOLUTIONS FOR SEWARDS AIRPORT AND THE CONTROL OF RESURRECTION RIVER The pavement topping on #31 should be left intact as a protective cover, the above-mentioned crossing may be delayed a few years, but depends on future floods in the fall of each year. Past DOT's added rip-rap and maintenance at the midpoint section, has prevented the rivers erosion of the runway. Flood pictures by DOT show water over the runway #31 at the midpoint area where it has its low section. This lower elevation dip in the runway at midpoint adds to the risk of the rivers crossing at midpoint."

"PRACTICAL SOLUTIONS FOR CONTROL OF THE RESURRECTION RIVER AND THE AIRPORT PLAN FOR SEWARD Keep and make the LONG runway # 31 the primary runway for the Seward airport. Is it already adequate in length? It just needs to be upgraded and protected. The runways alignment may be better for takeoff and landings considering winds. The air traffic patterns would be in the center of the Bay First, immediately continue to protect the LONG runway # 31 with whatever rip rap protection and maintenance is required to hold back the river."

"Longer term permanent and stronger Riprap should be installed to protect a runway with a higher elevation. This could be done in phases or possibly all at one time. Finger dykes could be designed to force the river to make a channel further away from the protective rip-rap. In the future, Rip rap could be extended beyond the LONG runway further south. to carry sediments further into the center bay. With a strong current and a good channel, a river will clean itself out on a timely basis. Second, raise the elevation of the entire LONG runway # 31 at least 4 to 5 feet and make it level. Leave the SHORT runway # 16 as presently laid out, as a hanger, taxiway, office, business center, and parking area. Extending the PROPOSED short runway #16 into Resurrection Bay tide flats and beach will crowd the Alaska Railroad and its shipping lanes. It will limit the Alaska Railroad from expanding to the east, possibly with a new dock and gantry cranes for shipping. They need expiation potential and flexibility." Steven C. Leirer (08/15/19). Email to Solstice; attached letter to DOT&PF

"The dredging of the river and armoring of the runway seems required. Raising the runway also seems needed." Karl VanBaskirk (08/15/19). Hearing written comment

"What they should do is...riprap the hell out of that long runway, and they can do it in stages. You don't need to do it all at once, but it should be a breakwater-style riprap; big boulders, put in some finger dikes over time, to push that river back to the east." "...after that's done, they should build that runway up; take the dip out of the center of it. Because that's where it floods, because it's low there. It must have sank. I'm sure they didn't build the runway, when they built it in 1950/'54 with the dip in it....build that thing up about...four, five, six feet. There's a lot of gravel around. It would be cheap." "...haul it out of the Resurrection River and dump it in there." "...extend the runway and make it a little longer, make it a little wider, or whatever the FAA wants or the pilots want." Steven C. Leirer (08/15/19). Hearing testimony, offered copy of presentation with more info.

Response:

Multiple criteria led to Alternative 2.2 being chosen as the Proposed Alternative over Alternative 1.1. Please see Appendix B of the Final EA for a thorough review of this criteria. The current runway has degraded due to recurrent flooding and has an imposed weight restriction. Repairs of this magnitude are beyond the regular operations and maintenance budget. In order to secure funding for a larger scope of work, DOT&PF must look at all reasonable alternatives which fit the defined purpose and need and then are obligated to choose the alternative with the least environmental impacts. Without over-riding justification FAA cannot approve funding for an alternative with significant impacts, when another alternative with less impacts exists. This process is documented in the Final EA available for public review on the project website. The DOT&PF project website also has information regarding the level of work required to reconstruct runway 13/31 (Alternative 1.1). See the dredging memorandum on the project website for additional responses to the dredging comments.

DESIGN - FENCE

Comments:

"Figure 2: Fence. Extending the fence through the wetlands and slough to the south is strongly not advised. Installing and extending a fence in the wetlands will be very difficult. The tide brings in driftwood, icebergs and debris of all sizes which will damage the fence, requiring expensive maintenance. The existing fence does not serve its purpose as it has several large, openings and does not restrict people or wildlife. Maintenance has not been kept up on the current smaller scale fence, how will a larger one be maintained? Moose, bears, and other wildlife will become blocked and become a problem because this barrier. They will continue to try and get to their food source (salmon, clams, grasses and sedges) in the wetlands. Learn from other projects that plan for wildlife movements, that have installed tunnels, bridges etc. Or just leave out the costly fence all together." Tasha DiMarzio (01/09/19). Email to Solstice with attached letter, image files

"Figure 2: Fence. Extending the security fence through the wetlands and slough to the south is ill advised, and affects jurisdictional wetlands. Installation in the wetlands will be difficult. The tide delivers debris of all sizes which will quickly damage the fence extension, requiring expensive maintenance. The existing fence has several large, ungated openings and does not restrict people or wildlife. It would be more cost-effective to enforce the no trespassing regulations. Or add gates and security locks to the existing fence. Moose, bears, and other wildlife, however, will then be a problem because this barrier is in their home. The proposed extension will only exacerbate their distress, requiring them to go even farther to get around it." Carol Griswold (01/09/19). Email to Solstice with attached letter, image files

Response:

Thank you for your comments and valid points. The current design is based on the Proposed Alternative 2.2 and is evaluated in the EA. The alternative calls for fencing along the Seward Highway entrance road and south of the airport apron adjacent to the railroad property to the west. The Seward Airport is a state-owned airport and DOT&PF is responsible for ensuring safe airport operating conditions. Airport fencing is a typical component used to ensure safety. However, DOT&PF and FAA will continue to discuss how best to meet security requirements at the Seward Airport, which could lead to revisions to the fence plan such as gates.

DESIGN – FLOAT PLANE CHANNEL

Comments:

"Figure 2: Float Plane Channel: "It is anticipated to remove approximately 42,101 cubic yards of material from the wetlands and waters of the US to develop a new float plane channel and access road." The float plane channel will impact 1.65 acres of valuable tidal wetlands, including destroying an anadromous stream and fish nursery. It will severely impact and alter the hydrology of the wetlands. Cutting a channel through the existing sedge wetlands, anadromous stream, and salt marsh will destroy that ecosystem. Carving the channel through the protective beach ryegrass high salt marsh coastal barrier will destroy an important landform that serves as a defense barrier against storm surges, coastal erosion from storms and rising sea levels. Float planes have never used the area that was made for them. I have lived in Seward 18 years and go to the airport on a weekly basis in the winter and daily in the summer and I have never seen a float plane land in or around the current airport. Floatplanes will not use a new one, not because they would not like too but, because it would not be usable the currents, tides and sediment fill in this area. It will be costly to dredge frequently and repair after winter tides and icebergs wreak havoc on this landscape. It is just not conducive for floats planes. Leave it be natural." Tasha DiMarzio (01/09/19). Email to Solstice with attached letter, image files

"Figure 2: Float Plane Channel: information on the width of this proposed channel is buried in the report on page 38 and 47. It is anticipated to remove approximately 42,101 cubic yards of material from the wetlands and waters of the US to develop a new float plane channel and access road, and install riprap along the new runway. The float plane channel would be 8 feet deep and 100 feet wide, and impact 1.65 acres of valuable tidal wetlands, including ditching an anadromous stream and fish nursery. The length was not stated, but appears to be over 750' long." Carol Griswold (01/09/19). Email to Solstice with attached letter, image files

"P 39 "The proposed Action's RW construction and float plane channel would not alter hydrology to wetlands on site." This is unsupported and untrue. Cutting the 100-foot wide, >750' long channel through the existing jurisdictional Lyngbye sedge wetlands, anadromous stream, and salt marsh will destroy that ecosystem. Carving the channel through the protective beach ryegrass high salt marsh coastal berm will destroy an important landform that serves as a first line of defense against the impacts of coastal erosion from storms. Extending the runway and associated fill into the salt marsh will restrict tidal flow which daily flows in and out of the salt marsh, causing increased velocity and erosion. The float plane channel will allow the ocean to flood at every tide without the mitigating benefit of the sedge wetlands. Float planes could also deliver invasive species on their floats. Dredging and maintenance will be required to keep it clear of debris and sedimentation. The channel will deliver the ocean directly to the fence and runway, like a pipeline, especially during the normal high tides, Spring tides, and storms. No vegetation studies were done at this site. Where is the hydrology study? The channel will benefit a very small minority of float plane owners, (page 5)

who have an alternative option of changing their floats and wheels at Bear Lake before freeze-up and after break-up. The proposed Float Plane Channel Access Road will also be inundated by the Spring tides at the south end and will require maintenance. As noted on page 6, "State budget cuts continue to decrease available maintenance funding." The Float Plane Channel is impractical, unaffordable, and unfeasible." Carol Griswold (01/09/19). Email to Solstice with attached letter, image files

"Note, page 5: use of the unnamed anadromous stream between the two runways and "service road" by float plane owners is no longer possible due to gravel deposits in the stream caused by channel changes and repeated flooding. Float plane owners have had to use alternate methods, such as Bear Lake, for the past several years." Carol Griswold (01/09/19). Email to Solstice with attached letter, image files

"The Plan does not describe how it will avoid or minimize impacts to aquatic resources. Instead the Plan proposes to dig an 8' deep, 100' wide, over 750' long float plane channel through the sedge wetlands and destroy an anadromous stream. This channel is unnecessary and should be eliminated." Carol Griswold (01/09/19). Email to Solstice with attached letter, image files

"Every effort should be made to protect this valuable wetlands ecosystem of tideland, bay barrier, wetlands, pond, marsh, and estuary that serves as a protective interface between the ocean and the land. Delete this Float Plane Channel. Apply measures to avoid, minimize, and mitigate impacts." Carol Griswold (01/09/19). Email to Solstice with attached letter, image files

Response:

Thank you for your comments. The float plane facilities including the channel were added to the project based on a number of requests from the users of the current float plane change out area. DOT&PF has utilized the services of a licensed hydrologist to assess the feasibility of a proposed float plane channel. Specific details for this design are in progress, and those that are shown in the EA represent the largest impact this portion of the project is expected to have. If determined feasible, the specific details will be presented during the permitting process and mitigated accordingly. Therefore, the impacts represented in the EA will be the greatest level of impact for this portion of the project or the impacts will be reduced by further design and/or mitigation. FAA initiated and concluded an Essential Fish Habitat (EFH) consultation with the NMFS in February of 2020. This consultation addressed known and expected impacts to EFH and as a result the project has been updated to incorporate NMFS conservation recommendations.

DESIGN - LONGER RUNWAY

Comments:

"The City of Seward will be submitting formal comment. The nature of these comments will be the need to extend the runway to 4,000 within this project. Using FAA design standards in Alaska may not result in ideal outcomes based upon the unique realities of Alaska. This is an emergency response issue more than anything else." Jeff Bridges (12/12/18), City of Seward. 3rd public meeting written comment

"4,000 or nothing." No name provided (12/12/18). 3rd public meeting written comment

"The current runway is planned for only 3,300 feet, and we would like to encourage the state to revise the length to at least 4,000 feet. This would support larger cargo planes." Dan Nelson (12/31/18), Kenai Peninsula Borough Office of Emergency Management. Letter to Solstice

"...the community would prefer a 4,000-foot runway over the currently proposed 3,300-foot runway. The proposed length of the new runways entirely consistent with rules and regulations that may work effectively in the lower 48 states. However, we would make the case that strict compliance with these regulations would turn a blind eye to the unique nature of Alaska, the distance between communities, and the real potential for using aircraft as a primary means of getting large numbers of people out of an area or supplies into a community." "...the City of Seward requests that the proposed improvements to the Seward Airport include building the entire runway to 4,000." Jeff Bridges (01/02/19). Letter to Solstice

"Here is a sample 6000 foot runway." Attached an image file. Brad Snowden (8/3-4/19). Email to Solstice, attached letter from 2004 and image file

"I support the preservation of the current runways or expansion not this reduction of runway length. The dredging of the river and armoring of the runway seems required. Raising the runway also seems needed." "Loss of runway length is not acceptable for Seward." Karl VanBaskirk (08/15/19). Hearing written comment

"As a member of Seward Civil Air Patrol, I am in support of a 4,000 foot long runway." Stephanie Presley (08/15/19). Hearing written comment

"Would like to keep long runway, or extension to the proposed." James Gillmore (08/15/19). Hearing written comment

"I'm looking at a 6000-foot runway." "A 6000-foot runway is what we really need." Brad Snowden (08/15/19), Resident. Hearing testimony

- "...my biggest concern is maintaining a long runway, the longer the better." John French (08/15/19), Resident, formerly with the Historic Preservation Commission. Hearing testimony
- "...I can see no other option. A shorter runway is going to isolate this town and be of no service. That's my considered opinion, and I think I have a lot of years of knowledge behind that." Darryl Schaefermeyer (08/15/19). Hearing testimony

Response:

Thank you for your comments. Among the many factors that went into considerations regarding the proposed runway length, the project team was required to identify a design aircraft per FAA criteria as detailed in FAA order 5200.38D, Advisory Circular (AC) 150/5000-17, and AC 150/5325-4B. The design aircraft identified, the King Air 200, was chosen because it meets this criteria. A 3,300-foot runway will accommodate this design aircraft. There is insufficient large aircraft use currently at Seward Airport to justify a longer runway, so FAA will not pay for a runway longer than 3,300 feet. FAA is providing almost 94% of the funding for this project. Additionally, a capacity analysis showed that only one runway was needed to accommodate existing and near-term (within 5 to 10 years) air traffic. This criteria and rationale is detailed in the Scoping Report available on the project website.

As analyzed the proposed action includes a near term runway construction project that provides a 3300-foot runway with the potential for an ultimate configuration seeing that 3300-foot runway expanded to 4000 feet if the future aviation demand and forecast at Seward warrant it. Therefore, FAA's primary planning document for the proposed project, the Airport Layout Plan, and DOT&PF's Master Plan for Seward Airport incorporate a near

term 3300-foot runway and a future extension to 4000 feet if warranted. Therefore, DOT&PF's Planners and FAA have determined that a future 700-foot extension as currently proposed is feasible. DOT&PF Planners and the City of Seward can work together to determine how to extend the preferred alternative in the future when aviation demand warrants FAA funding the extension.

DESIGN - WIND

Comments:

"The proposed plan is not what the local Seward based pilots want; one new runway won't be long enough for most corporate jets. It will also likely have a cross wind factor the pilots will have to deal with. The pilots need two runways when the winds are bad, allowing them to favoring one run way or the other; Which is why the Seward airport was built with two run ways to being with; safety in mind for the pilots." Tasha DiMarzio (01/09/19). Email to Solstice with attached letter, image files

"...the reason for those two runways is the variable winds, so you have an option, for safety reasons, flying in and out of this airport." Russ Burnard (08/15/19), Resident, pilot. Hearing testimony

"To spend millions of dollars to extend the one option, change it to one option, as far as the wind direction goes, to me makes no sense whatsoever. Safetywise, we need two runways, and one long one to bring bigger aircraft in here when we need them." Russ Burnard (08/15/19), Resident, pilot. Hearing testimony

"...I'm against getting rid of two runways and just having one, because of the wind conditions. Our northwinds come out of the northeast, the north and northwest, and they get really turbulent, and the pilot needs to have an alternate choice to try to get down on the ground. And if you don't have two runways running at different compass directions, you're going to kill somebody." Frederick Woelkers (08/15/19), Resident, pilot. Hearing testimony

"It will create a hazardous situation for air travel through bird strikes as well as being positioned inappropriately for prevailing winter winds." Ann C. Ghicadus (08/15/19). Hearing written comment

"I do not know about the winds and their effect for landing and takeoff for airplanes." (First name not provided) Leirer (08/10/19). Email to Solstice

Response:

Updated wind information was obtained specifically to look for the occasional winter winds discussed by pilots. This information did not show the seasonal wind changes reported by pilots. The alignment of runway 16/34 provides 99.53% wind coverage which is better than wind coverage for runway 13/31 and exceeds FAA's requirement for 95% wind coverage. A crosswind runway is not eligible for FAA funding unless the wind coverage is less than 95%. The Scoping Report availableon the project website presents the details of the wind analysis and discusses the requirements for choosing runway length.

DECISIONS/INVOLVEMENT PROCESS/COMMENT SCHEDULE

Comments:

"The Department of Transportation...has a criteria that's established by the FAA for funding that they can't get around easily, and that proscribes what they're proposing, the 3000 feet. They have not agreed to the repair of the existing runway, because they don't want to play in the river. They find certain problems with doing things to the Resurrection River. But other agencies -- for instance, the U.S. Corps of Engineers -- is willing to look at and partially support and are design projects that will take a while." Bruce Jaffa (08/15/19), Property owner, resident, pilot. Hearing testimony

"I ask that AK DOT not expend more funds or deplete available Federal funds at this time until a long range plan is developed that will meet expected Social and Economic growth needs of the Seward Community. This statement is intended to represent my views. I am aware that the current response deadline is August 25th, 2019 and I may or may not be able to add additional comments and meet that date that occurs so close to the August 15th Hearing." Bruce Jaffa (08/15/19). Email to Solstice

- "...I think that it's unconscionable for an agency that works for our people, the State of Alaska, to come in and tell us and not listen to what we want and to try to force down our throats a solution that we don't feel will work, and other experts don't feel will work; not in the interest of the environment and not in the interest of the flying public." "...I'm glad that this meeting is being followed up by a more appropriate meeting by the FAA." Carrol Jaffa (08/15/19), Property owner, resident. Hearing testimony
- "...this format proposed is unacceptable to Seward. Public, PACAB, Council and Administration all specifically asked for a public meeting and NOT an 'open house' format. The 'open house' format clearly puts the community at a disadvantage and at this juncture will not be tolerated. The community will not stand for the style being proposed. We will be self organizing to have one person at a time give public testimony to your whole group while the other attendees watch and listen." Christy Terry (08/14/19). Email to Solstice
- "...the community understood this meeting to be vastly different, where we would have one organized presentation and be able to comment as a body. And that was not only discussed at a council meeting, discussed by administration, but also communicated at various boards and commission meetings. And that was the community's understanding. And since that did not happen, and if it does not happen tonight, there should be a second meeting, because that's what the community expects." Christy Terry (08/15/19), Port and Commerce Advisory Board for the City of Seward. Hearing testimony
- "...this process is deficient, and it continues to be so. The testimony out there is not on the record. It's just talk. We need to have all those people, Barbara Beaton and all the rest of them in here in the room listening to this testimony. And all the testimony that everybody has here needs to be on the record, which it is, I guess...I don't feel like I've been heard from the start. I've been to every one of these meetings. I have written testimony, it is in the record; verbal testimony is not. This is the first opportunity we've had to get it into the record. If we called on our own accord, it would be. Although we've been told there's a stakeholder process, it was never announced. Who are the stakeholders? I don't know. I would have attended, if I had been notified." Bob Linville (08/15/19), Resident, Pilot. Hearing testimony

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"The "open house" arrangement used in previous Rae Building airport meetings was rejected last Thursday evening by attendees up front allowing a more formal auditorium venue for oral public testimony to be given for the record. As a veteran of 40 years' worth of previous large Seward project public processes, I have never prior to this one witnessed the virtual 100% agreement that was on display in testimony at this meeting." Bob Linville (08/20/19). Email to Solstice with letter attached

"I have been an active participant at all four publicly announced meetings...in Seward, as well as last Thursday's meeting at the Seward City Hall. This is my third written comment concerning this project. Other "stakeholders" meetings have been referred to in the documents. If any of these "stakeholders" meetings were announced publicly in any fashion, I am not aware of it even though I have been on your project email list since 2014. As a prior plane owner, family member of a current plane owner, and user of both the runways and the wetlands I am very interested in this project and wish to be considered a "stakeholder"." Bob Linville (08/20/19). Email to Solstice with letter attached

"I realize there are significant issues with the topography and flooding that are difficult to address but, as you may have heard, Seward deals with these issues all the time. I also realize the team has done a lot of work to identify and find solutions to mitigate these and that work should be commended. However, I urge you to widen your scope, invite and engage more local input and help Seward find an improvement that represents the actual use of our area and the potential greater use that would result from an improvement upgrade rather than what has been proposed." Patricia Linville (08/19/19). Email to Solstice

"...I'm disappointed that we seem to be getting a meeting that's format doesn't match what we asked for. I'm heartened to hear that we're going to be able to have everybody sit in one room and have a conversation..." Susi Towsley (08/15/19), City Council, resident. Hearing testimony

"I...came to this meeting expecting a much different format. I'm not surprised. I've seen this kind of thing happen to this community, time and time again, when it comes to being subject to this kind of process." Darryl Schaefermeyer (08/15/19). Hearing testimony

She was interested in who was at the Seward Airport Improvements Project hearing and asked if I would provide her with some information about who was there and what their roles are in the project. She wants to understand the players involved in the project. Her understanding and opinion of the project right now is that everyone needs to come to the table to decide what is happening given that: Alternative 1.1 is the only thing that the community wants; This feels like it has reached a crisis; The community's perception is that DOT&PF laughed at them during the hearing; meanwhile, they think that DOT&PF feels like the people in the community disrespected them; The project will be discussed at tonight's Community Council meeting; Lynda has called Barb Beaton and Jonathan Lindquist several times to better understand who is playing which role in this project, but she hasn't been able to get through to them, yet. Lynda Paquette telephone call documentation (8/26/19 and 8/28/19), Port & Commerce Advisory Board for the City of Seward. Telephone call with Solstice

"Please delay the closing of the comments on the airport as least a month." Name not provided (08/15/19). Hearing written comment

"I would like for the FAA to pause on the current airport project till there is sufficient time to hear more from the community especially since the last presentation." Anthony Baclaan (08/15/19). Hearing written comment

"P 19 Comments from ADFG and USFSW were limited to the construction, not to the impact of the relocated and extended runway, float plane channel, wetland and upland fill, clear-cut trees, flooding by the Resurrection River into the currently protected floodplain, and wildlife impacts once the project is completed. Please get feedback from these two agencies before continuing on with planning." Tasha DiMarzio (01/09/19). Email to Solstice with attached letter, image files

"While I appreciate the extension to January 9, due to the federal government shutdown, I was unable to confer with ecologists and botanists from agencies including the National Park Service and Islands and Oceans."

"P 19 It appears that mitigation comments from ADFG and USFSW were limited to the construction, not to the impact of the relocated and extended runway and associated fill, float plane channel, wetland and upland fill, clear-cut trees, flooding by the Resurrection River into the currently protected floodplain, etc AFTER the project is completed. Correct this serious omission and reevaluate." Carol Griswold (01/09/19). Email to Solstice with attached letter, image files

"We would also request a public hearing on this Environmental Assessment to allow for additional comments on information contained within the assessment." Jeff Bridges (01/02/19), City of Seward. Letter to Solstice

Response:

Thank you for your comments. The FAA and DOT&PF can only consider actions and the effects of those actions which are within their scope of analysis as defined by the potential effects of the proposed project and the alternatives under analysis; which are their NEPA and authoritative mandate. FAA's authorities and project related NEPA scope of analysis includes Seward Airport, runways, taxiways and related potential effects of the proposed airport project. While there are potential partial solutions to the airport flooding issues, neither FAA nor DOT&PF will analyze flooding solutions outside the NEPA scope of analysis for the proposed project because analysis of such solutions is beyond the scope of the proposed project.

Input on public involvement methods are appreciated. DOT&PF followed FAA guidelines and the DOT&PF Environmental Procedures Manual Chapter 7 Public Agency Involvement throughout this project. Extensive communications have included a public hearing, public meetings, stakeholder working group meetings, and consultations with local, state, and federal agencies. These activities, are documented in the project Scoping Report, which is available online at http://www.dot.alaska.gov/creg/sewardairport/documents.shtml.

Regulatory agencies have been consulted throughout the EA process. Agencies asked questions, provided information, and gave written and verbal comments during the scoping period and throughout the EA process. Agencies were provided an announcement of availability of the Draft EA, which included a link to the document on the project website. All comments from agencies have been included in the Final EA. Local, state, and federal agencies and stakeholders that have and are being consulted throughout this process include the following:

 AK Dept. of Environmental Conservation (ADEC), Division of Air Quality, Non-Point & Mobile Sources Program

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- ADEC, Division of Spill Prevention & Response, Contaminated Sites
- ADEC, Division of Water, Wastewater Discharge Authorization, Stormwater and Wetlands
- ADNR, Division of Parks & Outdoor Recreation, SHPO
- AK Dept. of Commerce, Community, & Economic Development, Division of Community & Regional Affairs
- ADF&Gd, Division of Habitat
- ADF&G, Division of Habitat, Invasive Species Program
- ADF&G, Division of Wildlife Conservation
- Alaska Railroad Corporation
- City of Seward (Planning Technician and City Manager)
- Kenai Peninsula Borough (KPB), Seward/Bear Creek Flood Service Area
- KPB, Floodplain Administrator
- Kenai River Center
- National Marine Fisheries Service (NMFS), Protected Resources Division
- NMFS. Essential Fish Habitat
- USACE, Kenai Field Office Regulatory Division
- U.S. Fish and Wildlife Service (USFWS), Ecological Services
- USFWS, Biologist (with bird expertise)

Based on public comments, a public hearing on the Draft EA was held in Seward on August 15, 2019. The comment period on the Draft EA was open until August 25, 2019, the required 10 days following the public hearing that was held on August 15, 2019, since the Draft EA was made available for public comment in November 2018. All public meetings were announced on the DOT&PF website for the project, in the local Seward newspaper, and via email to those registered on the project email list. FAA decided not to extend the public hearing comment period as requested because discussions with the community and DOT&PF were on-going, because of the extensive amount of public comment and involvement opportunities throughout the NEPA process and because the hearing testimony and subsequent meeting did not disclose new issues. FAA also decided not to suspend the project because of those on-going conversations to resolve issues and because the condition of existing Runway 13-31 is expected to continue to degrade with not less than each high water event.

A Stakeholder Working Group (SWG) was established that included aircraft and airport user representatives (ARRC, Alaska Wing Civil Air Patrol, DOT&PF M&O Section, Kenai Peninsula Borough Seward/Bear Creek Flood Service Area, and a general aviation lease holder) and local, borough, and state representatives (City of Seward, DOT&PF, FAA Alaskan Airports Division, and Seward City Council). SWG members were based on areas of expertise. Summaries of SWG meetings are included in Appendix C of the Scoping Report (http://www.dot.alaska.gov/creg/sewardairport/documents.shtml). The point of the Stakeholders Group was for members to disseminate information presented at the meetings and discuss with their constituents. The. Requests from the group were researched and responded to however, Stakeholders Group did not propose a different solution from what was presented to them. The information provided at the Stakeholders meetings is the same information that was presented at public meetings.

DREDGING

Comments:

"I prefer Alt. 1.1, especially after I learned of a float plane ditch that is currently proposed, and would need to be dredged as preventative maintenance. If we are discussing dredging why not raise the existing long runway, reinforce it with riprap, and dredge the river channel as needed. I believe this to be the most common sense and direct approach, much like occurs in the Lower 48 via the Corps of Engineers." Tyler Pelo (12/12/18). 3rd public meeting written comment

"I understand that the State is not in favor of dredging, yet there's talk of a floodplain access area that would require dredging as routine maintenance, so I'm not sure what that's all about." Tyler Pelo (08/15/19), Resident. Hearing testimony

"...a consensus that this whole problem could have been solved a long time ago, if we could dredge below the airport and remove the accumulated gravel that causes the water to back up, when storm surges can't run out like they should. And in reality it only hinders our use of the long runway a week or so out of the year... I don't see why they couldn't get permits to dredge below the airport when you can dredge above the airport with a gravel pit right there. So they would use the gravel to raise a runway from the gravel pit above the airport rather than remove the gravel from below the airport and eliminate the problem entirely. If you were to eliminate the gravel below, there would be no need to put money into where it floods, because it wouldn't flood anymore, if you opened up the area below." Russ Burnard (08/15/19), Resident, pilot. Hearing testimony

"As well as the river definitely needs to be maintained and addressed regularly." Joe Tougas (08/15/19), Business owner. Hearing testimony

"Riprap will not hold on that channel. We're going to have to sheet-pile it on the western side of that river. There is no other viable solution. And we're either going to have to dredge it, excavate it, but we're going to have to do regular maintenance on that river. Which the Kenai Peninsula put forth a mitigation plan back in 1995, and never once acted on it. Your flood service area did not come into existence until 2003, and our hands are tied." Bob Reisner (08/15/19), Seward-Bear Creek Flood Service Area. Hearing testimony

Response:

The Resurrection River is a braided river. As such, braided rivers move back and forth within the river delta, searching for a path of least resistance. The Scoping Report noted that dredging was one of the constraints used in analyzing the reasonableness of alternatives (Section 5.1.1, page 23). For more information regarding the evaluation of potential impacts from dredging within the Resurrection River, consult the Resurrection River Excavation Memorandum developed for DOT&PF and available on the project website. FAA cannot fund dredging of the Resurrection River channel for the Seward Airport under any known circumstance. The DOT&PF does not have funds either at the construction phase or annually via Operations and Maintenance to conduct the initial dredging or conduct maintenance dredging. On-going state budget cuts have reduced personnel and resources within its Maintenance & Operations (M&O) Section. The M&O section is about to undergo another series of budget cuts therefore, there is no known source of funding to make that aspect of the potential impacts of dredging feasible.

During the 1990s, it was agreed that the DOT&PF would dredge the river once, then the City of Seward and the KPB would continue dredging maintenance. While the DOT&PF did complete the initial dredging during this time period, the other agencies have not

maintained the dredging as agreed.. Please see the Hydrology, Flooding, and Erosion section of this document for a review of comments related to flooding.

The feasibility of constructing the floatplane channel is still under consideration. It was included in the proposed project and analysis to disclose and analyze its potential effects. It is not however, guaranteed to be constructed. Specific details for the final design are in progress. The scope of work shown in the EA is considered to be the largest level of impact this proposed portion of the project would have. If determined feasible, specific details will be presented during the permitting process.

FAA has no expectation that rip rap applied only once will prevent all future erosion that could potentially result from the construction of Alternative 2.2. Some level of maintenance would be required over the expected "useful life".

ECONOMICS/FUTURE DEVELOPMENT

Comments:

"It would be unfortunate if due to the length limitation of the runway and its inability to utilize larger aircraft that the airport did not meet its potential for current and future aircraft and thus become drastically underutilized. These anticipated improvements would not then be used effectively and be put toward maximum benefit." Jeff Bridges (01/02/19), City of Seward. Letter to Solstice

"Page 1: "4,500 air taxi operations; 4,000 general aviation operations annually". Where did these statistics come from? These numbers seem extremely high, and not true, they and imply a much busier airport than what is used in reality. This is a low level activity airport used only by private planes, one medivac, and three helicopter tour companies. (Helicopter needs were not addressed) So, how is a 3300' runway justified?" Tasha DiMarzio (01/09/19). Email to Solstice with attached letter, image files

"We are never getting commercial flight to Seward as the weather and demand does not facilitate this." Charles DiMarzio (01/09/19). Email to Solstice

Another point is that Seward and the Alaska Rail Road needs land in this area, East of its current dock, for future dock expansion. (First name not provided) Leirer (08/10/19). Email to Solstice

"LIST OF ACTUAL IMPACTS BY THE RIVER CHANGING TO THE NEW CHANNEL Resurrection River deposits sediments in the area between Alaska Railroad dock and the end of runway #31. The AT&T fiberoptic cable entering the shore may be affected. This cable is primary to communications for Alaska.

The drainage culvert located under the Alaska Railroad property draining the industrial area and Clearview may be plugged or slowed restricting drain water. This pipe drains water under Leirer Industrial subdivision, the Railroad property at the depot and north the round house. The boat landing area to the East of the Alaska Railroad dock becomes unusable for boat landing and repair. The Alaska Railroad does not have adequate space to expand its dock facilities to the east of the present dock.

The cruise ship industry may have to abandon Seward as a port of Call for a lack of facilities. The US Coast Guard may have to abandoned Seward as a port of Call because of the lack of facilities and having a short runway.

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The Ak RR would have to dredge its harbor to remain open, with no place to deposit dredge material.

The Kenai Fjords cruse tourist industry and fish charter boats would be in japery with a closed small boat harbor.

Icicle Seafoods would not be able to accept boats discharging raw fish." Steven C. Leirer (08/15/19). Email to Solstice; attached letter to DOT&PF

"...we've been in the process...about coming over here and trying to provide service, that you haven't had for years, to your community, flying King Air's scheduled route back and forth to Anchorage and charters." "...what we're hoping to do is talk with the FAA, in some of the other forums, and try to get some of the money that's purposed to be used to put in WAAS facilities, which would allow scheduled service to take place here." "...if we get down to a smaller runway, you can never be serviced by a larger company because the runway's too short for the 121 operator, such as Ravn or whatever, because they have what's known as an accelerated stop distance. As a 135 operator, we can do this and come in and provide service to your communities, so." "But we'd definitely be willing to talk to you guys ad infinitum and show what we can offer for your community." Keith Ham (08/15/19), Kenai Aviation. Hearing testimony

"The previous gentleman who wanted to provide service, we would certainly love him to do that, but he needs a longer runway." Bob Linville (08/15/19), Resident, Pilot. Hearing testimony

"I know that DOT airport science has done some work on researching this, but they didn't do what I did. I went down and I formed a meeting in Seattle with Holland America, the vice president, the president of Princess and Alaska Airlines, who all agreed that they'd use that runway, if we had a 6000-foot runway, and get that traffic off the highway that those motor coaches bring up and down...as its cruise-ship industry grows, as its tourism grows, and as our winter doesn't change businesswise, it's Seward's future...the demand is there. Just ask the customers, the potential customers if they'd use it. They all agreed they would. The records out there." Brad Snowden (08/15/19), Resident. Hearing testimony

The reason for the call...is the overall selection of the alternative and his concern with abandoning the main runway 13/31. He wanted to talk about the long-term impacts what he believes will occur to the ARRC docks and the city harbor. He had been at the public meeting and understood from talking to the hydrologist (Paul Janke) that the intent of this project was to allow the runway to be breached. Steven Leirer telephone call documentation (02/13/19). Telephone call with PDC

"...why we should keep the long runway and abandon the short runway. The short runway should -- if it was extended out, you're going to have planes patterning right into boat traffic, cruise ship traffic, gantry cranes and all that." Steven C. Leirer (08/15/19). Hearing testimony, offered copy of presentation with more info

"The only way to save our airport is not to deal with the short runway and expand it -- it will not work with the railway expansion plan -- the way it has to work is to keep our long runway in place." Bob Reisner (08/15/19), Seward-Bear Creek Flood Service Area. Hearing testimony

"In addition to any consideration for air safety, Options to pilots, availability to larger aircraft a longer runway provides opportunities for community growth. DOT Alt 2.2 at 3300 ft or 3.0 at 4000 feet is less than the current 4200 feet. Reducing length is a backward step, does not anticipate Seward future growth and needs. Using historic data from the EIS, that is of debatable worth

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ignores the proven strengthening of Seward based on commercial industry, tourism, fisheries, marine related business and more. If concerns for Defense or emergency planning cannot be considered in this process the impact on the economy can. Therefore guidance from the Seward area groups and City administration should be incorporated with a strong bias toward their understanding of Sewards needs in the future. Anything less than 4200 feet is a step backward." Bruce Jaffa (08/26/19), Resident/ Pilot/ PACAB member/ MPAPC Commissioner, Business Owner. Email to Solstice

"Page 1: Interesting statistics. How are 4,500 air taxi operations, and 4,000 itinerant general aviation operations annually documented? Specifically, I question 4,500 air taxi operations, and 4,000 itinerant general aviation operations annually. the 2000 general aviation (local) numbers include touch-and-goes? The numbers seem highly inflated, and if so, imply a busier airport than reality."

"Note: p 30 "Forecast operations for the airport total 12,856 operations over 15 years." "Projected operations for Seward Airport do not approach the above-stated operational thresholds....The low level of activity at the airport..."

"Helicopters as airport users are not mentioned in this report. Helicopters activity has increased to two companies offering dogsled glacier tours, Bear Glacier tours, and flightseeing tours in the summer, and one heli-skiing company in the winter. Helicopters contract out services to miners, salvage operations, etc. The Coast Guard helo also uses the airport. The airport project should address their impact and needs."

"P 8 Table Natural Resources and Energy Supply: Will the electric system be extended to lease-holders along Airport Road who currently do not have access to the electric grid? Note: p 30 states that electricity is available to all lease lots at the airport. This is not true for all, hence the use of solar panels and wind generator."

"P 9 Table Socioeconomics: This Proposed Action severely affects the quality of life for many residents."

"P 34 "Where are the market studies to substantiate the need for small jet operations by the tourism and industrial sectors? Where are the studies to substantiate the City of Seward claims of potential limitations on economic growth? Delete new RW 16-34 extension to 4000' or substantiate claims; provide avoidance, mimimization, and mitigation analysis and resubmit."

"P 48 5.10.1.1 Past, Present, and Reasonably Foreseeable Future Actions "For this project, generally, the geographic scope includes the head of Resurrection Bay area that is characterized primarily by commercial and industrial activities." What about the rest of the head of Resurrection Bay that is not commercialized or industrialized? The report includes the rest of the Resurrection Bay tidal coastal ecosystem repeatedly as the "elsewhere" where all the wildlife, including birds, is supposed to relocate. Providing supporting data for this "elsewhere" habitat is essential. Expand geographic scope to include the entire head of Resurrection Bay."

"Seward Marine Industrial Center (SMIC) and Spring Creek Correctional Center are NOT part of this geographic scope, and should be deleted in all references." Carol Griswold (01/09/19). Email to Solstice with attached letter, image files

"Seward's become, and has been for a long time, kind of a ship-repair Mecca for Southcentral Alaska. We've got, between my company and several other companies in town, a lot of specialty in

responding to marine disasters, from groundings, like the Kulluk that ran aground in Kodiak, the Exxon Valdez, and then a lot of smaller-scale ones that happen regularly around the state. We routinely charter flights out of Seward...to Western Alaska, the North Slope, Southeast...it's...done in minutes of you calling people, getting flights arranged, you're packing gear, you're loading them on a flight...being able to bring in larger aircraft, fly more equipment in and out, doing what we're doing would be great." Joe Tougas (08/15/19), Business owner. Hearing testimony

"I have no vested interest in the Seward airport. However I do have a vested interest in growing the economy in our town." Lori Landstrom (08/15/19), Resident. Emailed DOT&PF

"It was stated during the last meeting that the population of Seward and Moose Pass was fairly stagnant and the use of the airport wasn't pointing to maintaining the status quo of the current airport. Please understand that while our permanent population may not have increased, the use of our area has ballooned. This seasonal influx of people is evident as I struggle each day to turn across traffic to get onto the highway. ...statistically this phenomenon was shown in our library use numbers. As the director of Seward Community Library Museum for 16 years, we received national recognition for the number of people who came through our doors compared to our service population (number of permanent residents). ...While not necessarily great for those of us who have to navigate our local streets, this influx can and should be the basis for improving local infrastructure, including our access to adequate air transportation." Patricia Linville (08/19/19). Email to Solstice

Response:

Thank you for your comments. Future airport private and commercial need, and economics related to the airport were discussed with the City of Seward during the Scoping phase of the project and via the public involvement process. These factors were extensively reviewed when developing the Draft and Final EA, and it was one of many factors that needed to be considered. A further discussion of the degree to which economics was considered in the alternatives analysis follows in relation to the other responses to comments below.

Another factor that was considered was the ability to actually fund the project while maintaining opportunities to acknowledge and respond to the community's desire for a longer runway. The majority of this project's funding (93.75%) will come from the FAA's Airport Improvement Program (AIP). AIP funding can only be used for improvements to support current and forecasted airport needs (i.e. infrastructure needed for provide for current aviation demand and required infrastructure to support it), based on reasonable projections from existing use (demand) data. While FAA is aware that a longer runway has the potential to allow more and different types of aviation use FAA is unable to fund infrastructure components that are not required to address current and near term aviation demand.

FAA's analysis of the alternatives is based in part on what NEPA refers to as reasonable and practicable alternatives that provide for the projects purpose and need while minimizing negative impacts to the human and natural environment. In other words alternatives are "weighed" in relation to their potential effects (positive and negative) and the alternative that is the best overall is typically the alternative selected to construct. During this analytical process other potential alternatives may drop out anywhere in the analytical process or may be carried through the analytical process to the end. From the scoping process through to the end of the analytical process a total of 8 alternatives were analyzed as well as the No Action alternative. FAA's analysis did not incorporate the potential impacts

of potential economic development that might arise from the re-construction of the existing 4,240-foot runway (13-31) or those same potential impacts related to the ultimate configuration (4000-foot runway) of the proposed project. That analysis was not conducted because that level of analysis is both outside the scope of analysis of the proposed project and is speculative in nature. The proposed project address' the potential future need for a 4000-foot runway via inclusion of it in the "ultimate" configuration. Therefore, one of the determinations that Alternative 2.2 is a reasonable and practicable alternative as defined in relation to NEPA is its ability to meet future aviation demand and need. The degree to which economic impacts were considered was based in part on the potential economic effects of the reasonable and practicable alternatives potential effects. And, as the potential effects of Alternative 2.2, the only reasonable and practicable alternative remaining at the final stage of analysis, would continue to provide for the existing level of economic impact currently resulting from the airport, and has the potential to address future aviation driven economic demand via the 700-foot extension to 4,000 feet.

FAA is required to evaluate if a proposed project includes a longer or wider runway than needed or that the data support (e.g. aviation forecast and capacity analysis). The minimum threshold of 500 operations of the airport's most demanding aircraft (or family of aircraft) must be met in determining the size of the Seward Airport runway as detailed in FAA order 5200.38D, Advisory Circular (AC) 150/5000-17, and AC 150/5325-4B. Annual operations for all aircraft combined at the Seward Airport (10,700 in 2013) is low when compared to other similar airports (Kenai: 38,950; Homer: 48,085; Dillingham: 50,823). Even if operations at Seward Airport doubled or tripled, a single 3,300-ft runway would still be sufficient to meet those increased operations. The Seward Airport Improvements project has acknowledged the community's desire for a longer runway by ensuring that this current project does not preclude future expansion when demand increases, by purchasing property now for the future extension, by including that future 700-foot extension in this level of analysis and by showing the extension in planning documents for the airport.

With regard to the scope of future airport and economic demand, the EA considers cumulative impacts by resource category, as applicable, as not all resource categories may experience cumulative impacts. The geographic scope of the EA's Section 5.10 Cumulative Impacts analysis therefore varies by resource category, but includes the entire head of Resurrection Bay (again as applicable), including Seward Marine Industrial Center (SMIC), Spring Creek Correctional Center, ARRC port, and the small boat harbor. Economic impacts were considered during the Project Scoping phase when alternatives for the airport were evaluated (see the alternative analysis available on the project website) and as appropriate during the later analytical phases as the EA was developed. The project does not include extending electricity to lease lots at the airport because DOT&PF is not proposing to include it. DOT&PF is not proposing to include it in part because FAA would not fund it.

During the scoping process the DOT&PF and contractor team consulted with industry as well as FAA to understand the opportunities for scheduled (commercial carrier) air service into Seward. This scoping and later analytical process also served to understand and incorporate the constraints of the surrounding terrain on improving aircraft approach capabilities and how improved approaches would improve airport reliability, safety, and ease of airborne access which therefore could increase airport demand/use. The project scoping report is available on the DOT&PF website, and it documents the interactions between FAA and DOT&PF on this subject. This project was developed with a longer (4000-foot) ultimate runway in mind via the ultimate configuration. This longer runway

could be completed in the near term if ADOT&PF (the sponsor) proposes to do it, alternative funding to supplement FAA's funds exists to finish analysis of its impacts, finish design and construct and maintain it. However, as ADOT&PF is not proposing it at this time, and FAA is aware of no funding source for the immediate construction of the proposed 700-foot future extension, therefore the NEPA process does not consider a 4000-foot runway either reasonable or practicable at this time.

While existing and forecasted demand does not currently support a longer runway, the use by larger classes of aircraft may increase in the future. The Proposed Alternative's (Alternative 2.2) runway would have the strength to support larger aircraft, and larger aircraft may also be able to operate on the 3,300' length, depending on factors such as the individual aircraft's performance specs and loading. A large number of runways in Alaska are 3,300' or shorter, and receive operations by larger aircraft. Pilots are responsible for calculating the required runway length for their specific aircraft, operation, and payload and have the ability to restrict takeoff weight in order to operate on shorter runways. . . Also, the Airport Layout Plan, currently under development, will show a 4,000-ft runway as an Ultimate Condition. Verifiable evidence of aviation need is required to receiving FAA funding to extend the proposed 3300-foot runway to a 4,000-ft runway in the future. Therefore, FAA is not precluding commercial carrier operations by selecting Alternative 2.2 which provides a 3300-foot runway in the near term and potentially a 4000-foot runway in the future via a 700-foot extension; DOT&PF and FAA are planning for the return of a commercial carrier and the level of demand that would support such an operation.

DOT&PF and FAA have analyzed the potential impacts of Alternative 2.2 on the Alaska Railroads facilities, U.S. Coast Guard needs, cruise ship operations and small boat harbor. The ARRC is part of the Stakeholder Working Group that provided input throughout the public involvement process. Through this process, ARRC voiced concern that development of the Proposed Action would result in airspace restrictions that could affect proposed freight development. At their request, DOT&PF has provided ARRC with contoured airspace maps detailing the height restrictions that would accompany development of the Proposed Action. These restrictions are limited to the placement of structures such as very tall light poles, cranes, etc., which could penetrate the restricted airspace heights.

As to the statement that the construction of Alternative 2.2 would require dredging of the ARRC terminal, the Resurrection River has migrated within its alluvial floodplain substantially since 1950. This movement is documented in the hydrologic analysis performed for the purpose of analyzing alternatives and is included in Appendix B of the Scoping Report available on the project website. The data used to perform this hydrologic modeling was based on the latest available data including stream channel cross-sections but provides extensive discussion on how these values have changed over time due to various factors such as severe storm events and placement of gravel stockpiles. The effort to extrapolate from current conditions to model potential future movement of the Resurrection River beyond that which is a direct result of actions associated with the analyzed alternatives is beyond the scope of this project. The current proposed airport improvement project is limited in scope in part by what falls within the funding jurisdiction of the FAA and the projects NEPA scope of analysis. Controlling the Resurrection River and providing future protection of resources within the City of Seward is beyond the scope of this project and should be part of a larger discussion with the community and various resource agencies. Alternative 2.2 does include riprap armoring to protect against erosion should the Resurrection River migrate from its current channel. This is an added measure

of protection to airport facilities which also stands as a measure of protection between the Resurrection River and infrastructure adjacent to and downstream of the airport.

FAA has no aviation forecast data that would support a 6000-foot runway. Nor is speculation from entities that they would utilize a 6000-foot runway if it existed and potential economic development that might result from its construction adequate justification to analyze its potential impacts in this EA nor can FAA fund it.

Regarding the comment that Alternative 2.2 would degrade the overall quality of life in Seward; the proposed Alternative would not degraded the overall quality of life in Seward as there are no effects that do so nor are aviation based services reduced beyond their current level.

Regarding the comment that the scope of analysis of the cumulative impacts assessment in Section 5.10 of the EA needs to be expanded to the "head of Resurrection Bay" overall. In relation to the proposed projects and its effects FAA recognizes that affected acreages of estuarine and palustrine habitats as noted in the EA abutting the airport will be lost or substantially further degraded by the proposed project. And, that some individuals within populations utilizing and/or occupying those habitats will be displaced or lost. Those facts have been recognized and analyzed. Further analysis of those impacts would occur if the additional 700 feet of runway is built as defined in the "Ultimate Configuration" (e.g. extension of the proposed 3300-foot runway to 4000 feet). Therefore, FAA has determined that the scope of analysis for Cumulative Impacts related to those habitat impacts and species effects does not need to be expanded to encompass the head of Resurrection Bay overall. In relation to existing species use within the existing airport boundary FAA notes that wildlife use of course occurs but, that this type of use is ancillary to the existing land use of the airport which is anthropogenic aviation and aviation related uses. Therefore, loss of habitats within the existing airport property boundary or displacement of species use of those lands is regrettable but consistent with current anthropogenic land use.

ENVIRONMENTAL DOCUMENT

Comments:

"Overall, this document is incomplete, outdated, and lacks proper research. It also lacks local knowledge of the current Seward airport land, wetlands and surrounding tidal area." "This project has many errors from the research of the ecosystem as a whole to how the runway and fencing will be affected when Mother Nature takes its toll on it during the high tides, storms and rising sea levels of the winter hit." Tasha DiMarzio (01/09/19). Email to Solstice with attached letter, image files

"Overall, this draft environmental assessment is perfunctory, with missing, incomplete, outdated, and erroneous data. Assumptions are made without substantiation. The critical Wetlands Assessment, Appendix C did not assess jurisdictional tidal wetlands affected by the current airport plan and omitted essential data. Measures to avoid, minimize, and compensate for jurisdictional wetland losses are missing or not adequately addressed. Environmental impacts are particularly poorly presented. Fish data from affected area was not included. I find these issues troubling and urge the regulators and agencies to follow up and require corrections before this environmental assessment and project are approved and proceed."

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"Figure 2 minor note: text boxes on all these figures would be easier to read if white backgrounds were rectangles instead of irregular white shapes."

"Page 4 Figure 8, page 44 Note: Zones, including AE not defined in List of Acronyms and Abbreviations on p iv, and should be explained."

"Appendices are variously labeled in the table of contents and in the report. For clarity and consistency, relabel and add page numbers." "Appendix D: Birds of Conservation Concern, etc, D-1 Add Bristle-thighed Curlew, D-2 really doubt both Horned and Tufted Puffin, Kittlitz's Murrelet entries at airport. I did not vet this thoroughly." "Appendix E: Wetlands etc Notable lack of investigation of Lyngbye sedge lowland marshe, salt marsh, beach ryegrass coastal barrier high marsh, and mud flats."

"E-52 "west" should be "east" Correct and resubmit. "A. Wetland boundary changes since 2004..., islands and shore wetlands in the Resurrection River to the west of the main runway have changed location, size, and vegetation status. Most wetland islands are now unvegetated compared to 2004 likely from gradual increase in the rate of flood events since 1995 (pers. comm with DOT&PF Central Region hydrologic engineer). For example, flooding overtopped the main runway 11 times in 2010. Also, minor changes to 2004 wetlands boundaries occurred along the mean high tide line where a main estuary is located on the west side and southern end of the main runway (Runway 31)." "E-52 this is correct "The wetlands that changed the most between 2004 are the island and shoreline wetlands in the Resurrection River along the east side of the main runway."" "E 53 "west" should be "east" Correct and resubmit. V. Conclusions The 2004 wetlands delineation for hydrophytic vegetation, hydric soils and wetlands hydrology remains valid except for changes to island and shoreline wetlands on the Resurrection River on the main runway west side." "E 54 Figure 1 It would be more relevant to superimpose the Proposed Alternative over NW1 Wetland Classes Figure 1. That would more clearly show the impact of extending the new RW 16-34 into the salt marsh and barrier island, and the impact of dredging out the 100' wide x 8' deep x >750' float plane channel." "E-21 Appendix A Photographic Log"

"E61 SW03 (Site at north end of forest along Airport Road.) Typo: "Picnea" should be "Picea", and it's probably not sitchensis but P. x lutzii. Populus tremuloides is very unusual in Seward. The dominant Populus is P. balsamifera ssp. trichocarpa." Carol Griswold (01/09/19). Email to Solstice with attached letter, image files

"I think the decision to do an Environmental Assessment rather than a full EIS is shortsighted. I think it's important to look at all the options." John French (08/15/19), Resident, formerly with the Historic Preservation Commission. Hearing testimony

"I, too, have submitted many comments on the draft EA. I found that the data supporting their findings was deeply flawed... I was very disappointed with their research." Carol Griswold (08/15/19), Resident. Hearing testimony

Response:

Thank you for your comments.

The FAA approved the Draft EA for public review and comment in part to provide opportunities to define if there were omissions or errors as is in part the intent of NEPA. In doing so, they found that the Draft EA adhered to the intent of NEPA, required guidelines, specifically FAA's Order 1050.1 Environmental Impacts: Policies and Procedures and their

Environmental Desk Reference for Airport Actions. DOT&PF and FAA have noted comments regarding omissions or errors and addressed them as appropriate in the Final EA.

Your technical edits that help to improve the quality of the EA are appreciated and will be incorporated as appropriate.

GENERAL COMMENTS

Comments:

"The engineers have done an adequate job of designing a new airport for Seward, and they have covered ALL aspects of the project. However, the developmental process and design is dominated by influences such as: environmental impact studies, public input, FEMA rules, Fish and Game issues, aircraft/payload issues, FAA rules. The State's policy on airport design, and airport policy and State and Federal funding is also a major influence." Steven C. Leirer (08/15/19). Email to Solstice; attached letter to DOT&PF

"I am a concerned about the affects that this project will have on the environment as well as its need. As a resident of this community for almost 20 years and frequent visitor to the area that will be altered by this project I disagree with several of the statements made in your environmental assessment." Charles DiMarzio (01/09/19). Email to Solstice

Response:

Thank you for your comments. Per the National Environmental Policy Act (NEPA), other environmental laws, and the required state and federal planning and design processes both DOT&PF and FAA have many criterion to follow, evaluate and comply with in the airport planning, design, analysis and development process. FAA has determined that both DOT&PF and FAA have completed those processes to date as required. Please note that a comment that states that some conclusions are wrong but, provides nothing further provides FAA no specific comment to respond to nor any indication of what the commentor thinks is wrong or why.

HAZARDOUS WASTE

Comment:

""P 20: Hazardous Materials, Solid Waste, and Pollution Prevention During the project and afterwards: Anywhere there are aircraft and fuel storage, there is the possibility of pollution. Hazmat materials should be located on site in case of a spill, and personnel should be trained to respond quickly. 55-gallon fuel drums should be monitored, and underground fuel tanks should not be allowed due to the high water table." Carol Griswold (01/09/19). Email to Solstice with attached letter, image files

Response:

Thank you for your comment and for raising this concern. The EA covers issues related specifically to the proposed project. Day-to-day airport operations are largely independent of this assessment. However, the airport has existing hazardous material response protocols which are documented in the Spill Prevention, Control, and Countermeasure (SPCC) plan for the Seward Airport and which will continue to be observed and are therefore expected to address potential impacts. DOT&PF complies with and requires airport users comply with relevant state and federal laws and regulations regarding the storage, use and disposal of hazardous materials and wastes. The SPCC plan for the Seward Airport is available by request from DOT&PF.

HYDROLOGY, FLOODING, AND EROSION

Comments:

""Page 4, 5, 7, 45, and numerous other references. This study anticipates the Resurrection River to overtop and breach RW 13-31, allowing floodwater to reach the embankment of the new runway 16-34. 'Allowing RW 13-31 to eventually breach, will restore part of the original floodplain.' While this statement may be true, now that there is valuable infrastructure to protect, is no longer desirable. The river will not recognize which part of the original floodplain is approved for "restoration" by this plan and which would lead to millions of dollars in damage. The original Resurrection River L alluvial delta and floodplain included the head of the bay all the way west to the current Lagoon at Van Buren Street and Second Avenue. The area is now filled with critical infrastructure. The new runway, wetlands, tidelands, and adjacent AKRR infrastructure will be catastrophically impacted when RW 13-31, which serves as a levee, is abandoned, breached, and the river starting "restoring" the floodplain. P 45, I disagree with the conclusion. The Proposed Action WILL cause flow alterations that WILL result in unacceptable downstream flooding. And destruction of habitat and infrastructure. The potentially catastrophic consequences of this action to the ecosystem and adjacent infrastructure are not discussed despite repeated similar statements throughout the report and should be. To comply with the Mitigation Rule, MAINTAIN RW 13-31 by continuing to armor and reinforce it as a levee."

"P 9 Floodplains: Allowing Resurrection River to breach RW 13-31 and flood the existing wetlands will cause serious impacts."

"P 43extending the new RW 16-34 and associated fill, riprap, and armoring into and across the salt marsh pond, and into the high salt marsh coastal berm island will drastically alter the natural hydrology of this ecosystem. Provide substantiating data and resubmit." Carol Griswold (01/09/19). Email to Solstice with attached letter, image files

He believes this will cause sediment to move downstream and accumulate at the entrance to the harbor rendering it unusable by cruise ships and cargo vessels headed to the ARRC facility. He is disturbed that the Airport Improvement project couldn't do more and plans to provide written comment on the project urging a longer term look at maintaining the runway 13/31 embankment to protect other assets of the State and the City. He indicated that he would likely cc a lot of people and not be very popular about raising a ruckus. Our conversation was very pleasant, but he definitely feels strongly that the various federal and state agencies need to work together for an overall longer term solution. Steven Leirer telephone call documentation (02/13/19). Telephone call with PDC

"I am a person in Seward that is concerned about this project and DOT's plans that ignore the Flood potential of the Resurrection River that is butting up to the east side of what is called Airport #31 (Long runway)." (First name not provided) Leirer (08/10/19). Email to Solstice

"The airport planning and design process has remained predominant and centerstage; while the impact of the Resurrection River and its power for flooding and destruction remained backstage and secondary. WHAT IS IGNORED AND MARGINALIZED BY THE PLANNERS, IS WHAT INFULENCE AND IMPACT RESURRECTION RIVER WILL HAVE ON THE SEWARD HARBOR AREA, AND AIRPORTS, IF IT WERE TO CHANGE ITS COURSE. This River has the potential to do great harm to Seward's harbor infrastructure and cost millions in engineering, dredging repairs, lost financial opportunity, and even jeopardize the new short airport if completed."

"Let's take a look at what may AND will probably happen. Refer to the google earth photograph (attached) of the airport and river showing the flow patterns wrapping around the end of the LONG RUNWAY. The River wants to run West and to lower ground, toward the Alaska Railroad dock. It is my understanding that the plan calls for the building of a new airport where the existing SHORT RUNWAY (labeled # 16) now exists, and at a later date, extend its direction out into the tide flats. The LONG RUNWAY (labeled # 31) will be abandoned, with lighting and asphalt removed. Assuming that runway # 31 is abandoned, and no rip-rap is maintained, the asphalt removed, and the Resurrection River crosses the long runway at its midpoint at the section of the runway that is currently lower in elevation at its midpoint (near the current taxi way); the river then cuts a new channel into the area between runways 16 and 31. The river's new channel will dump its entire sand, gravel and silt load into the beach area between the two runways and adjacent to the Alaska Railroad docks; and eventually advance it's sediments into the entrance to the small boat harbor. From this point it could advance down the beach front area toward the campground. If 100% of the River flows in this new channel it could do so for 20 to 50 years. This...could happen in one, two to five years, especially if the existing pavement is removed off the runway #31 and the existing riprap protection is not maintained. As of this date the existing midpoint rip-rap is protecting from erosion of runway #31 at its midpoint and south end."

"One objection by planners to the continued maintenance and adding rip-rap to protect the washout of 31, was that it would cause flooding on private property to the East (the Clark subdivision) and to the North in the area of the Civil air patrol land. The old Clark subdivision, with no access, was abandoned after the 1964 earthquake. These lots now cannot be used with river channel on all sides. The Kenai Peninsula Borough should buy these lots now to get them into public ownership. There are private parcels to the north off the Seward highway that probably would never be affected by maintenance and improvements to #31 further downriver. These parcels are upstream from any work at the midpoint on runway # 31." Steven C. Leirer (08/15/19). Email to Solstice; attached letter to DOT&PF

"It's been the runway -- runway 1.1 has been the long runway for 50 years. The river's moved a lot in the valley in 50 years. This whole valley pretty much, outside of the hills surrounding, exists behind dikes. That's how we controlled the bedload of every creek coming out of the mountains here. That particular runway also controls the bedload for the Resurrection River. That channel is miles wide, so it's not like it's pinching it in any way. That bedload can build up, channel up, and move it back a mile to the east, which it has been. That's where it was when the airport was built, and it will move back and forth. But what will happen if we abandon it? There's a low spot in the middle. One event will breach that existing runway with no asphalt on it, and we're going to get the bedload right down through the wetlands, right up against the new expensive runway you have chosen and right out into the port area, railroad and small boat harbor. And that's a lot of bedload. And it's got a lot to build up, before it moves to the other side of the valley, and all that buildup is negative from the point of view of this community. Losing length of the runway -- almost a thousand feet is negative -- in this community."

Bob Linville (08/15/19), Resident, Pilot. Hearing testimony

"...I think that's a major mistake of abandoning that long runway. They need to keep that long runway and use it to keep that river back. In 1950, the river ran way over miles away -- or, about a mile away there, and it's going to run here for a long time till it builds up enough gravel to want to run the other way."

"Keeping the long runway, what it's doing right now is it's holding back the river. If it breaches that -- the river breaches that runway -- and they were talking about pulling the pavement off of it. And

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I'll tell you that would have breached probably in two to three years, and I mean breached. And if there was a big flood, all that water and dirt and debris is going to come right down and dump right over on the railroad property and silt in that entire bowl here. If you look at the Google maps, you'll see a picture of what's happening. That river comes around the end of that runway and curves and heads right toward the dock and the boat harbor. That's the way it wants to go. And if breaks through that runway mid-point it's going to go through there very easy, and it will clean that out of there in probably a couple of years." "...you're going to have a big Corps of Engineers problem in dredging, trying to clean that harbor up and push that river back." Steven C. Leirer (08/15/19). Hearing testimony, offered copy of presentation with more info.

"And, you know, that site's prone to flooding. We all know that; we all talked about it. What we haven't talked about is the fact that Seward has already been experiencing high-tide, storm-surge situations at some times of the year, and it's bound to get worse rather than better. And for that reason I think we need to talk about not only maintaining the long runway, but building up the grade of it, so its significantly higher than it is currently. Otherwise it's just going to flood again the next time we have a serious storm surge from the south." John French (08/15/19), Resident, formerly with the Historic Preservation Commission. Hearing testimony

"And we do not, as a board, have a position on which alternative should be chosen. However, we believe that we wouldn't be in this position if mitigation had been taken, as had been suggested a long time ago, which is rechannelizing the river, keeping the river to the east. And that's what the board has been recommending." Mark Ganser (08/15/19), Seward-Bear Creek Flood Service Area. Hearing testimony

"The major problem with the long runway is the flooding that occurs. The project managing engineer stated... that private property was also a problem to the east of the runway. That is -- Crawford Subdivision is the primary one there. Crawford Subdivision was abandoned after the 1964 earthquake -- I was here for the 1964 earthquake -- and it has not been utilized since." Jim McCracken (08/15/19), Resident. Hearing testimony

"Kenneth F. Karle, P.E. reiterates in his report "Hydraulic Mapping and Modeling" dated July 6, 2016, previous analysis stating bedload rates in the Resurrection River to be "high" with accompanying "active channel migration and severe sediment deposition". Furthermore, the report states "Transport of these materials consistently modifies the major stream channels. The river migrates back and forth through many distributaries located in a flood plain ranging up to 1 mile in width." That is the lay of the land with every river or creek this vicinity. I agree...that "channel excavation is not a viable engineering solution to control flooding at the Seward Airport". However, dikes are extensively used throughout this valley to protect development, much more so than excavation. Name a creek or river, and I'll show you a dike. Yes, airport runway 13-31 is now also functioning as a dike as will Alternatives 2.2 or 3 should those runways be built. That's why "erosion control" i.e. riprap, is in use now and will be used no matter which project alternative is built. The FAA doesn't like the term "dike" and says they can't support the construction of such. But that's not what they are asked to provide funding for. We need funds to construct a runway protected by riprap for erosion control which will be needed no matter which alternative is picked or where this airport is placed in our area. As the Resurrection River's bedload has historically increased elevation on the eastern portion of its alluvial fan, it has moved west to fill in the now lower elevations in the western portion. Is it not obvious that given sufficient time and bedload deposition the river will move again in the future back to the east? The river has moved back and forth in its available channel throughout its geological history and it will continue to do so no matter which airport runway alternative is built. Of paramount importance to Seward however is

where the inevitable bedload deposition occurs. Should ADOT's current preference, Alternative 2.2 proceed allowing Runway 13-31 to be breached, bedload deposition will then begin to fill an area directly adjacent to our port."

"I have attached...a Google Earth view of the Resurrection River delta to illustrate how bedload deposition has formed the outwash tidal plain at the head of the bay to date. It can be plainly seen that Runway 13-31 has diverted deposition to the east on the tidal plain leaving an open tidal basin directly south of existing Runway 16-34. Should the main river be allowed to dump bedload directly into this basin going forward, the head of the bay will gradually reshape itself to fill in the gap and be even straight across, thus filling in the entire Railroad dock and threatening the entrance to our small boat harbor. Looking at the picture, this scenario is hard to deny. Why would we want to hasten the day when we have to frequently dredge the Port of Seward to keep it open? Selecting Alternative 1.1 avoids that outcome for decades to come." Bob Linville (08/20/19). Email to Solstice with letter attached

"P 44 ... allowing RW 13-31 to eventually breach will restore part of the original floodplain while endangering the salt marsh and AKRR infrastructure. This Plan should include maintenance of RW 13-31 as a levee, not a runway to prevent the Resurrection River from breaching the runway and flooding the airport." Carol Griswold (01/09/19). Email to Solstice with attached letter, image files

"...we cannot leave that river where it currently is; we're going to have to mitigate out a previous channel...In that channel that's next to the long runway, we should insert an oversize culvert to take care of the drainage system that DOT just spent \$40 million on to run underneath that runway out to that current river channel. We plug into that large, oversize culvert, and we treat it like a giant leach field. Okay? Like a leach line. We drill holes in the top for drainage, we run screen mesh steel over the top of it, and we plumb those culverts right into the side of it. Now, when it comes to moving the river, we cannot just let it have gravel embankment on the rail- -- on the airport side. Riprap will wash out. With 174,000 cubic yards of gravel coming down Resurrection River -- and that's an average. Years where it floods we get over 200,000 cubic yards down that river. This is why the river's there in the first place." Bob Reisner (08/15/19), Seward-Bear Creek Flood Service Area. Hearing testimony

Response:

Thank you for your comments. Flooding is one of the major issues that has been examined and considered during the EA process. Extensive hydrologic modeling by a licensed professional has been performed as part of the development of this proposed action (Alternative 2.2) and to analyze other alternatives that were not carried through to the Final EA. The purpose of this modeling was to assess flooding at the airport and surrounding area based on current conditions and as a result of alternative design options.

The Resurrection River has migrated within its alluvial floodplain substantially since 1950. This movement is documented in the hydrologic analysis performed for the purpose of analyzing alternatives and is included in Appendix B of the Scoping Report available on the project website. The data used to perform this hydrologic modeling was based on the latest available data including stream channel cross-sections but provides extensive discussion on how these values have changed over time due to various factors such as severe storm events and placement of gravel stockpiles. The effort to extrapolate from current conditions to model potential future movement of the Resurrection River beyond that which is a direct result of actions associated with the analyzed alternatives is beyond the scope of this project. The current proposed airport improvement project is limited in scope in part by

what falls within the funding jurisdiction of the FAA in relation to the NEPA scope of analysis for the project. Controlling the Resurrection River and providing future protection of resources within the City of Seward is beyond the scope of this project and should be part of a larger discussion with the community and various resource agencies. DOT&PF and FAA would be happy to participate in such discussions. The proposed projects Stakeholders Group included representatives from the Railroad and the City.

A weight restriction was placed on Runway 13/31 after field testing (on 3 separate occasions) showed the entire embankment strength has been seriously reduced, likely due to recurrent flooding. The runway needs extensive repair to re-establish full use, not just maintenance. Funding for this work comes from FAA which has requirements on how those funds can be used. The repair needed for runway 13/31 would raise it up to 4 feet in places to reduce or eliminate flooding closures and require additional fill into the Resurrection River to reduce erosion of the runway. The risks associated with this work are detailed below as well as in Section 3.2 and Appendix B of the EA and in the Scoping Report available on the project website. The expected multi-million dollar costs of this work is beyond the capabilities of Alaska DOT's budget given all the other infrastructure it must serve statewide.

Raising Runway 13-31 above the 100-year flood level with 2 feet of freeboard would require raising the runway over 6 feet in some areas with an average rise of 4.4 feet. A hydraulic analysis showed that Alternative 1.1 would result in a significant floodplain encroachment. Federal guidance (USDOT Order 5650.2) prevents such activities if a feasible alternative exists. Alternative 2.2 is considered a feasible alternative that would not result in significant floodplain impacts.

Multiple criteria led to Alternative 2.2 being chosen as the Proposed Alternative over Alternative 1.1, only one of which was the FIRM revision or impacts to the Crawford Subdivision. Please see Appendix B of the Final EA for a thorough review of these criteria. Alternative 2.2 does include riprap armoring to protect against erosion should the Resurrection River migrate from its current channel. This is an added measure of protection to airport facilities which also stands as a measure of protection between the Resurrection River and infrastructure adjacent to and downstream of the airport.

Please see the Dredging section of this document for additional information and a response to comments related to dredging.

LOCAL AND HISTORICAL KNOWLEDGE

Comments:

"...The aerial photo is outdated. The forested area west of Airport Road has been clear-cut by the AKRR, leaving only a few trees along the road. Avoidance, minimization, and mitigation has been ignored." Tasha DiMarzio (01/09/19). Email to Solstice with attached letter, image files

"The aerial photo is outdated. The forested area west of Airport Road has been clear-cut by the AKRR, leaving only a fringe of trees along the road. The island of trees south of taxiway A shown in the figure was clear-cut by DOT. Chunk by chunk, this rich ecosystem is unnecessarily being destroyed."

"The largest Tidal Ecosystem wetlands form behind beach berms at the mouth of the Resurrection River."

"Plant Relationships. Open beach fronts support bare ground (gravel) and scattered seaside sandplant...,and tundra alkaligrass Beach berms support Beachrye...often with yarrow.... Marshes behind the berms are almost wholly composed of Lyngbye sedge (Carex lyngbyei). A diverse plant community dominated by Beachrye and yarrow occupies a drier, infrequently inundated zone sometimes encountered above the marsh."

"NWI and HGM NWI classifies Seward are Tidal Ecosystem wetlands as E2EM1, Intertidal Emergent Persistent Estuaries. In an HGM classification (Tiner, 2003) the Tidal wetlands not found in estuaries are classified as Macrotidal Bidirectional Barrier Beach Fringe wetlands. The Tidal Ecosystem wetlands behind the Resurrection river are Macrotidal Bidirectional Bar-Built Estuarine Fringe wetlands."

"Tidal marshes develop where relatively flat land receives periodic input of tidal waters (Frohne 1953). As an interface between the ocean and land, tidal marshes combine aquatic and terrestrial habitats, anoxic and oxic conditions, as well as saline and fresh waters (Stone 1984). This dynamic environment supports life highly-adapted to saturation and saline conditions. Along the Gulf of Alaska coastline, tidal marshes are uncommon, developing as marshes in protected topographic pockets, or larger complexes on the major river deltas (Figure 1; Viereck et al. 1992). In this region they are one of Alaska's most critical habitats. As staging areas for millions of migrating shorebirds, geese, and swans, this biophysical setting supports nine animal taxa of conservation concern and provides important rearing habitat for salmon...."

"The dominant sedge in Beringian tidal marshes is generally Carex ramenskii..." (See Griswold letter for FULL detail and citations.) "Above these sparsely vegetated mudflats, the low marsh generally occurs below or at mean high tide level (Taylor 1981). The low marsh supports halophytic graminoids of the Puccinellia genus." (See Griswold letter for FULL detail and citations.) "The mid marsh occupies the reach of land that is inundated only at the highest tides during the growing season (Crow 1977, Batten et al. 1978). It typically supports dense swards of Carex lyngbyei..."

"Less common mid marsh sedges include Carex pluriflora, C. 19 cryptocarpa and C. glaerosa (Crow 1968, Hanson 1951). With increased elevation, dominance transitions from Carex lyngbyei to associations dominated or codominated by Deschampsia cespitosa and Vahlodea atropurpurea..." (See Griswold letter for citations.) The high marsh ranges from the highest tide line to the maximum level reached by storm surges during the growing season (Batten et al. 1978). It supports

a diversity of salt-tolerant graminoid and forb associations including the sedges Carex mackenziei, and C. pluriflora, and the grasses Calamagrostis canadensis, C. nutkaensis, Deschampsia beringensis, Festuca rubra, Leymus mollis and Poa eminens..." (See Griswold letter for citations.). The forbs Potentilla anserina ssp. egedii, Ligusticum scoticum and Lathyrus palustris typically increase in dominance with elevation across the high marsh..." (See Griswold letter for citations). "The low shrub Myrica gale/Carex lyngbyei and Salix hookeriana associations also occur (Hanson 1951, Boggs 2000)." "Conservation Status Rarity: Tidal marshes are widely distributed along the coastlines of Southeast Alaska and the Aleutian Islands, but their small total area (450 km2), and the fidelity of its component species makes this biophysical setting of one conservation concern. Threats: Due to their landscape position, tidal marshes are highly susceptible to damage from development, oil spills, sea level rise, and earthquake-induced slides and tsunamis...

A Literature Survey on the Wetland Vegetation of Alaska-DTIC..." (See Griswold letter for FULL details of suggested literature and citations.) Carol Griswold (01/09/19). Email to Solstice with attached letter, image files

"DOT moved the levee in '95. They took down the western levee, because they were getting buried in water and gravel with their equipment in the old channel. It was an act of desperation. They thought a small crack in the levee would help relieve the water." "...it opened to 40 feet within a matter of a minute." "...they saved their equipment and their lives, but now we've had this problem ever since." Bob Reisner (08/15/19), Seward-Bear Creek Flood Service Area. Hearing testimony

"When I moved here 22 years ago, F.S. Air used to fly in and out of the airport with passenger service, and we lost that, and now we're losing more things, more ability, if we move forward and we allow DOT to do what they're going to do." Lynda Paquette (08/15/19), Board of Commerce Authority Commission for the City. Hearing testimony

"The problems that are causing the flooding was committed in '87 -- '86, '97, flood work that was done in the Resurrection River that's outside the bounds of this project, and that was formatted by the contractor. The dike was breached. And the FEMA Region 10 was the participating agency that did that -- or, was responsible for the contract." Jim McCracken (08/15/19), Resident. Hearing testimony

Response:

Thank you for your comments. FAA's analysis of the EA, especially regarding historic and local knowledge of the airport. As required by NEPA, the best available scientific data for the area was used in this document. The FAA approved this document for public review. In doing so, they found that the EA adheres to the intent of NEPA's required guidelines, specifically FAA's Order 1050.1 Environmental Impacts: Policies and Procedures and their Environmental Desk Reference for Airport Actions.

Also, according to DOT&PF records, FS Air decided to discontinue their service to Seward based on a lack of demand. Air carriers were contacted to see what requirements they would need. They indicated an increase in demand and a better approach. FAA was consulted to see if the approach could be improved. They indicated a better public approach would not be possible at Seward due to the surrounding terrain.

Your technical edits that help to improve the quality of the Draft EA are appreciated and will be incorporated as appropriate.

MAINTENANCE

Comments:

"...to protect the investment that's made, whatever investment is made, there's got to be maintenance, and that has to be addressed or we'll be back here again." Mark Ganser (08/15/19), Seward-Bear Creek Flood Service Area. Hearing testimony

Response:

The proposed project incorporates erosion protection to protect the proposed 3300-foot runway. That erosion protection would be maintained for the proposed life of that runway. The only dredging proposed for this project is that required to construct and maintain the floatplane ramp.

NOISE IMPACTS

Comments:

"P 8 Table Noise and Noise-compatible Land Use: "Noise levels may increase at the bird-watching area at the southern edge of the airport property..." What an inappropriate, human-centric description of the rich wetlands habitat south of the proposed runway. It is not primarily a "bird-watching area" but a critical and essential spawning ground and nursery for coastal fish and shellfish; nesting, feeding, and resting site for waterfowl and resident and migratory birds. Extending the runway farther into the wetlands and salt marsh pond will bring the noise and presence of the planes directly into this important habitat and negatively affect the ecosystem. The adjacent barge repair operation on AKRR property already negatively affects this ecosystem with noise, activity, and the workers' roaming, loose dogs. Avoid, minimize, and mitigate impacts to the wetlands and biological resources by moving RW north away from the salt marsh or shorten it. Remove impractical and expensive to maintain Float Plane Channel." Carol Griswold (01/09/19). Email to Solstice with attached letter, image files

"...it puts the aircraft noise over town, more closer to town, which is negative." Bob Linville (08/15/19), Resident, Pilot. Hearing testimony

Response:

Thank you for your comments. No formal noise study was conducted because FAA has no requirement for noise studies/noise modeling until propeller operations exceed 90,000 annually or jet operations exceed 700 operations annually. FAA considered the increased impacts of aviation, airport maintenance and temporary construction noise on both the habitats on and adjacent to the airport as well as the overall community. Temporary construction noise would exceed routine ambient noise levels in some cases as this type and scale of construction is not routine on the airport. However, aviation noise while slightly displaced in relation to where it occurs on the airport (e.g. the footprints of each decibel level) is not expected to be substantially modified as the proposed project neither modifies the current level of aviation use nor modifies the classes of aircraft utilizing the airport. FAA has also incorporated the known affects of off-site anthropogenic actions including the ARRC facilities and operations in the analysis. Regarding avian habitat impacts FAA addresses in the analysis the degradation and loss of estuarine and related habitats and the affects to species utilizing those habitats.

PURPOSE/NEED

Comments:

"The need for this project is definitely something that I question." Charles DiMarzio (01/09/19). Email to Solstice.

"There are other concerns. I know that the limit of 12,500 pounds, for aircraft using the runway, is interesting, because when the President was here with his Ospreys, they'd come in at 40-plus thousand pounds apiece. All three of them landed, taxied around, took off, both in practice day and the day, September 1st, when he was here, and there wasn't a problem. In the winter, when the runway is frozen, it would seem logical that the 12,500-pound limit could possibly be reviewed to be able to use other aircraft in here, when the runway is frozen, and theoretically, it's stabilized then." Jim McCracken (08/15/19), Resident. Hearing testimony

"This project will cost more money in construction and upkeep then working with the current runways. Don't waste the locals, money, or irreplaceable habitat. Do more research please." Tasha DiMarzio (01/09/19). Email to Solstice with attached letter, image files

Response:

Thank you for your comments. The need for the project is as stated in the EA but is best defined by the current condition of Runway 13-31, the frequency with which it is closed due to flood events, the significant annual maintenance costs and costs of returning it to a fully operational condition. The restoration to a fully operational condition of course requiring a major reconstruction project including the related erosion control work and annual erosion control maintenance required.

The helicopter that carried President Obama landed on the apron, which does not have the weight restriction placed on Runway 13/31 as it does not directly abut the Resurrection River and has not suffered the same damage to the underlying embankment. The Ospreys used as a component of the President's visit have the capacity for vertical and short takeoff and landing allowing them to use smaller runways such as runway 16/34.

RECREATION

Comments:

"P8 (Also see pages 28, 30, 33) Table Land Use: Please do not target just Bird watchers in this report as the only group accused of crossing the active air operations area. Since the trees were cut down a few years ago this area became more visible to locals wanting a nice place to recreate and walk their dogs. Removing the trees created easier access to the ponds, fields and beach at the airport. Less than 5 years ago only ~ 10 people used that area and most accessed it via the beach at low tide or through the woods not crossing the run way. There are far more recreational users enjoying this area now than ever before due to the tree removal; Including beach combers, duck hunters, photographers, dog walkers and fat bikers. This area is enjoyed by far more recreational users then pilots." Tasha DiMarzio (01/09/19). Email to Solstice with attached letter, image files

"P 8 (Also see pages 28, 30, 33) Table Land Use: Bird watchers are consistently targeted in this report as the only group accused of crossing the active air operations area. There are far more numbers of recreational users including duck hunters, photographers, dog walkers and fat bikers, many of whom are inconsiderate of both the aircraft operations and the habitat. I believe irresponsible, ignorant owners of uncontrolled dogs and illegal egg collectors (May 2016) severely impacted migratory and resident birds especially the Arctic Tern colony." Carol Griswold (01/09/19). Email to Solstice with attached letter, image files

Response:

The project includes fencing to eliminate recreational use of airport property. See the Design - Fence section for more information.

SAFETY/EMERGENCY RESPONSE

Comments:

"OEM sees this as an important emergency response and recovery capability in order to provide human health and welfare support to the eastern Kenai Peninsula. In the event of a large scale disaster that damages the Seward Highway it is likely that highway access would be cut off in a number of scenarios, making this runway a vital lifeline to the eastern Kenai Peninsula." Dan Nelson (12/31/18), Kenai Peninsula Borough Office of Emergency Management. Letter to Solstice

"Limiting the length of a runway would require relief flights of larger aircraft to utilize less fuel or less cargo in order to operate at this airport. In the event of a true relief operation this would not be efficient. It only makes sense to maximize the potential infrastructure improvements when they are under construction." Jeff Bridges (01/02/19), City of Seward. Letter to Solstice

"P 10 "The City of Seward is particularly susceptible to earthquakes, tsunamis, and stream flooding." Use of the airport during such disasters is a major reason to have an airport. The report does not address how the airport improvements will be engineered to survive these natural disasters. Please elaborate and address."

"P 36 LifeMed operates a medevac helicopter that serves the Providence Seward Medical and Care Center on First Avenue." Carol Griswold (01/09/19). Email to Solstice with attached letter, image files

"Medical emergencies can be evacuated via helicopter." Charles DiMarzio (01/09/19). Email to Solstice

"Worth considering a larger runway helping make our Highway safer in the summertime when the heaviest demand is upon us! If we can span the river with a highway we can span it with a runway! This is Seward's future!" Brad Snowden (8/3-4/19). Email to Solstice, attached letter from 2004 and image file

"DOT's Seward Airport plan has ignored the effects of Resurrection Rivers Flooding, CHANGING CHANNEL, breaching the LONG RUNWAY, and destroying the Alaska RR Dock and Boat Harbor areas. I think you have been made aware and warned of this possibility. Does Solstice AK have any liability here? Lengthening the SHORT runway into a primary and longer runway would result in the landing and takeoff flight path to very close to the Dock and large ship traffic lanes. Let's make the of Resurrection River and the Seward Airport plan be compatible." Steven C. Leirer (08/15/19). Email to Solstice; attached letter to DOT&PF

"We need to be able to land bigger planes in emergencies. That's something we can't have." Bob Linville (08/15/19), Resident, Pilot. Hearing testimony

"and get that traffic off the highway that those motor coaches bring up and down. And it's growing; it's a safety issue." Brad Snowden (08/15/19), Resident. Hearing testimony

"...my main concern...is the Providence Hospital Life Flights in the winter time. I talked to a pilot on numerous occasions about the airport and our prevailing north winds in the winter." "...I go duck

hunting out there in the fall, and I feel how strongly the wind can blow." "...the new runway, that they plan to build through the marsh, you would get blown directly off of it from the north winds funneling through old Exit Glacier, and basically a Life Flight could not land in the wintertime if we had a gale and the runway was iced over." "My wife is an emergency physician in the hospital. She's told me of accounts where they had to close the present runway because it was iced over in the winter, and they couldn't get people out for Life Flight and had to drive via ambulance. So the present runway is good, but still, when it's iced over, they still have problems. This runway gets even more wind from the perpendicular, and planes could potentially be blown off." "...if it was my kids that needed Life Flight in the wintertime, and they couldn't get it because the runway which is currently being used would not be active anymore, then I would have a pretty significant problem with that." Jan Bukac (08/15/19), Resident. Hearing testimony

"...I've been here...nearly 68 years, and I have seen all kinds of emergencies, where...that longer runway was absolutely necessary and essential. We had a flood here in '86, isolated the town. A lot of traffic had to go over that long runway. It would have been an absolute disaster here, if we hadn't had that runway." "I've been here during a chemical spill. The whole town was isolated. We were actually working to try to figure out how to evacuate this town by air. It was that critical. The only runway that could have even remotely provided that resource was the long runway."

"We have no other options, folks. The State of Alaska has got to get that message. I have a personal story about that long runway. When my oldest son was born, within a few days of being born, he had to be medevac'd out of here. The only thing that we could get him out with was a Learjet. That was the only capable aircraft that could come in at the time, and that long runway was necessary. The doctors told me that if he had been five minutes later in arriving at Providence Hospital, Anchorage, he would not be here today...He's just about 38 years old now." Darryl Schaefermeyer (08/15/19). Hearing testimony

"There was a very timely article in...ADN this morning...where the Russia jet collided with birds and made a safe but emergency landing in a cornfield. Positioning this new alternate runway right next to that pond will perhaps dramatically increase the danger to pilots and passengers." Carol Griswold (08/15/19), Resident. Hearing testimony

"It's very dangerous out there, if we don't have an alternative." Sharyl Seese (08/15/19), City Council, resident. Hearing testimony

"In the 17 years I've lived in Seward there have been many winters when the only highway in and out of town was closed for hours to days. Our airport is vital to the health and safety of our town." Lori Landstrom (08/15/19), Resident. Emailed DOT&PF

Response:

The issue of safety and emergency response has been an important factor in considering alternatives for this project. As such, the design aircraft, the King Air 200, was chosen because of its use for medical evacuations in Seward and because it is the "critical aircraft" as defined by FAA's planning requirements. The Scoping Report, available on the project website reports that 200 fixed-wing medevac flights and 140 medevac helicopter operations occur annually at the Seward Airport. The aircraft utilized for the medevac flights is the King Air 200. The proposed action would support this continued use. Helicopter operations out of the local hospital provide further medevac options.

Section 3, page 4 of the EA, describes the proposed action including how the runway will be raised above the 100-year floodplain. Other design considerations have been addressed during the design development of the project and adhere to FAA and DOT&PF standards.

Notable considerations also include flooding, land use, wind coverage, and potential wildlife hazards. Flooding of the Resurrection River has been modeled extensively for this project, including the impacts of breaching runway 13/31. The proposed action includes armoring runway 16/34 to prevent erosion. DOT&PF has coordinated with the City and the Railroad to identify future land uses. These were taken into account when developing the new runway alignment.

Regarding concerns over wind, an analysis was conducted using FAA guidelines and weather data consisting of hourly readings collected at the airport location over a ten year period from 2008 to 2017. This study found that the alignment of runway 16/34 provides 99.53% wind coverage, meaning 99.53% of the time the runway alignment is within FAA design tolerances for the crosswind component. This exceeds FAA's goal to meet 95% wind coverage and below which a second crosswind runway would be recommended. As such, FAA funding for a crosswind runway would not be justified. FAA recognizes that there may be times that crosswinds make a runway unusable, and pilots must carry adequate fuel to divert to an alternate airport if needed, however 100% utility is beyond the scope of FAA's funding policies. The proposed alignment provides better wind coverage than the 13/31 alignment, and better coverage than most airports.

The Leirer Family parcel has been noted in the EA as a potential wildlife hazard and both DOT&PF & FAA have and require utilization of mitigative measures to address wildlife hazards as they exist and/or develop.

The FAA is aware of the Seward areas potential to experience seismic events, highway erosion/flooding, avalanche's, tsunami's, riverine erosion and flooding at the airport and related potential environmental disaster's. While the NEPA analysis within the EA incorporates those environmental baseline conditions in the overall analysis the NEPA does not require nor does FAA do "worst case" analysis. Nor does FAA's airport design criteria require design to worst case scenario levels. Therefore, the design of the proposed project and analysis of the alternatives potential effects are based on the environmental (both human and natural) baseline conditions versus an analysis of one or more worst case or near worst case scenarios.

STORMWATER

Comments:

"P 47 Currently the Seward Airport does not operate under a Multi-Sector General Permit for storm water discharges. If and when the airport does have a de-icing program, or generate other significant contaminants, storm water discharges should be regulated to protect the salt marsh and wetlands." Carol Griswold (01/09/19). Email to Solstice with attached letter, image files

Response:

No part of the proposed action would provide facilities for the storage and distribution of de-icing material and equipment.

WETLAND IMPACTS

Comments:

"The damage to this critical wetland habitat is beyond the pale if Alt. 2.2 comes to fruition." Tyler Pelo (12/12/18). 3rd public meeting written comment

"Measures to avoid, minimize, and compensate for wetland losses are missing or not adequately addressed and environmental impacts are poorly presented."

"I do not feel that every effort has been made to protect this valuable wetlands ecosystem of tideland, bay, barrier, wetlands, pond, marsh, and estuary that serves as a protective interface between the ocean and the land." Tasha DiMarzio (01/09/19). Email to Solstice with attached letter, image files

"...habitat is not limited at the head of Resurrection Bay and it is expected that birds could move to other nearby locations", this is flat out not true. There is an Arctic Tern nesting colony that utilizes the area that will be filled by this project and this group of birds has been forced to utilize this location over recent years by recreational fisherman utilizing other areas at the head of the bay. This colony will be destroyed. There is no other suitable habitat for the Terns nor is there other suitable habitat for the many other migratory waterfowl that utilize the ponds that are to be filled." Charles DiMarzio (01/09/19). Email to Solstice

"P 7: Purpose and Need: Protect airport from further flood damage. Environmental Impacts: Biological Resources: I strongly disagree with this unsubstantiated statement: "The proposed project could impact habitat of 30 Birds of Conservation Concern; however, habitat is not limited at the head of Resurrection Bay and it is expected that birds could move to other nearby locations." The specific microhabitats currently provided by the wetland complex are extremely limited in this area and in Resurrection Bay. This project and its long-term consequences will wipe out essential and critical habitat; it is unrealistic and unsubstantiated expectation that the birds could find suitable habitat. Provide supporting documentation of other Pacific salt marsh, Lyngbe sedge low marsh zone, beach ryegrass high marsh berm, pond, estuary, and wetland systems in nearby locations. Tip: there is no other salt marsh system or equivalent at nearby locations. Avoid, minimize, and mitigate impacts to wetlands by maintaining RW 13-31 as a levee."

"Avoid, minimize, and mitigate impacts to the wetlands and biological resources by moving RW 16-34 back from the salt marsh or shorten it. Remove impractical and expensive to maintain Float Plane Channel."

Note: every habitat type in Appendix C, page13-21, from forest to tidelands, was listed as saturated or inundated. The water table is very high here, and even the spruce trees are in wetland habitat. The entire airport property is wetlands.

E 15 "No Salt Marsh areas were sampled for dominant vegetation in the 2004 survey but Shannon & Wilson (1996) lists Lyngby's sedge..., several flowered sedge...and sea arrow-grass...as dominants in those wetland types." "Lyngbye's sedge... is a well known and described type for Alaska. It is listed in every Alaska classification that includes coastal ecosystems. Lyngbye's sedge ... is a good indicator of jurisdictional wetland conditions." (See citation in Griswold letter.) "The Seward Airport Improvement Plan only mentions this federally recognized wetlands indicator in the appendix. The coastal ecosystem including the salt marsh and impacted Lyngbye's sedge wetlands was not included for sampling in any successive studies, yet it will be the most impacted wetlands.

Document the salt marsh, sedge wetlands, and surrounding coastal wetlands, apply the necessary federal avoid, minimize, mitigate controls in the report and update."

"P 9 Table Surface Waters: "The natural and beneficial water resource values of the adjacent water bodies may be impacted." Please elaborate, discuss the impacts, and strategies to avoid, minimize, and mitigate these potential impacts."

" "P 11 Biological Resources (Including Fish, Wildlife, and Plants) 5.2.1 Affected Environment: More detail on the ecology of the Pacific tidal marsh, estuary, and wetlands is needed here to fully understand the negative impacts of this project on a fragile habitat, and best options to avoid, minimize, and mitigate. The runway extends into a Pacific tidal marsh, one of Alaska's most critical habitats, according to a report by UAA. "This dynamic environment supports life highly-adapted to saturation and saline conditions. Along the Gulf of Alaska coastline, tidal marshes are uncommon, developing as marshes in protected topographic pockets, or larger complexes on the major river deltas. In this region they are one of Alaska's most critical habitats."

"Tidal marshes provide a staging area for millions of migrating shorebirds and waterfowl, is an important rearing habitat for salmon, and supports numerous taxa of concern." "Tidal marshes are also one of Southeast Alaska's most impacted biophysical settings due to the location of villages, towns and cities adjacent to and sometimes on these flat, yet fragile habitats... (e.g. Seward, Juneau, Cordova). Pages 6-8 of the report details the bird species of conservation concern within the Pacific Tidal Marsh Biophysical Setting. "I included more information from this report at the end of my comments." (See citations in Griswold letter.)

"P 12 Biological Resources Map is inaccurate. The Coastal Barrens does not extend into the Salt Marsh, which should be larger, nor is the Pond, noted along the long runway, that large. "P 16 5.2.1.4 Invasive Species: This section is also inaccurate, incomplete, and very poorly done. It does not address the impacted area of the project. Of the eight species mentioned, four are not invasive, one is not found here, and one is questionable. That leaves only two correctly identified as invasive species, with at least seven not mentioned. This project has been in the planning stages since 2004. Erroneous work submitted in 2004 should not be blindly copied and repeated. Invasive species are important; there was plenty of time to be more complete and accurate instead of perfunctory. Survey the impacted area, correct the data and resubmit." "It is disappointing and troubling that of the eight invasive species listed, the following four grass species were listed as invasive when they are native to Alaska:" "Canada Bluejoint...is a native grass, NOT an invasive." "Polar Grass...is a native grass, NOT an invasive." "Tufted Hair Grass...is a native grass, NOT an invasive." "Glaucous bluegrass...is a native grass, NOT an invasive." (See citations in Griswold letter.) "This error can be traced back to the 2005 study on E-14 "Common emergent vegetation consists of invasive graminoid species such as bluejoint (Calamagrostis canadensis), polar grass..., tufted hair grass..., and glaucous bluegrass...." "One of the many joys is the intact ecosystem of native species around the airport. Invasives are found mostly in disturbed areas along Airport Road, by the airport buildings, and along the south apron extending down the "service road" until the habitat changes to periodic tidal inundation. Small populations of Prostrate Knotweed...are found at the beach, but I remove them when found so they have been under control." "Several other invasive species found in small populations in disturbed areas that were not named include the Common Dandelion..., Pineappleweed..., Shepherd's Purse..., Oxeve Daisy..., Common Plantain..., and Common Sheep Sorel.... Bigleaf Lupine..., is native to Canada, and not confirmed as an introduced species in Alaska. The population seems stable and has not spread to other areas at the airport. This species does not appear to be an invasive species or a species of concern." "The flowers provide important nectar and pollen for bumblebees, which include declining species." (See citation in Griswold letter.) "I am not familiar with White Deadnettle..., nor is it known in our area, or listed in the Alaska Plant Materials Center Field Guide to Terrestrial Weed Identification publication: ..."

(See citation in Griswold letter.) "The airport may have Splitlip Hempnettle..., and Brittlestem Hempnettle,... with white and purple flowers. I weed these out whenever I find them. Correct these numerous errors and resubmit."

"...Appendix C page 12 Preliminary Wetlands Assessment for Proposed Seward Airport Improvements acknowledges the importance of these wetlands: "Because Coastal Barrens encompasses some marine aquatic wetland types it is rated as moderate for anadromous fish habitat. Coastal Barrens and Salt Marsh receive a high wildlife habitat value because of use by shorebirds, waterfowl, and bald eagles."

"P 37 5.9.1.1 Water Resources Wetlands Affected Environment "Common emergent vegetation consists of invasive graminoid species and shrubs of low height because of repeated clearing for airport maintenance." I challenge this statement, especially if it based on the completely bogus invasive weed section wherein 4 of the 8 so-called invasive species were native grasses. The native plants are remarkably resilient and tolerate mowing. There are no invasive shrubs in the Lowland Sedge-Shrub Management Area. Correct data and resubmit."

"P 37 "Coastal Barrens include...salt-killed emergent vegetation such as sedges and sea grasses." What does this term mean? Sedges, sea grasses, and other species present are not salt-killed but adapted to tide immersion (hylophytic). Correct data and resubmit."

"P 38 first paragraph: this is a succinct summary of the significance of the project area wetlands: "Rivers and streams in the project area have moderate to high value for the aquatic habitat function... salmon rearing and spawning habitat..." "Coastal Barrens and Salt Marsh provide high value wildlife habitat for shorebirds, waterfowl, bald eagles, and moose." (Add coyotes, black bear, brown bears, and river otters.) "Riverine wetland habitats also function in groundwater discharge, erosion control/flow regulation, sediment/toxicant retention." "Vegetated wetlands Riverine Tall Scrub, and Riverine Broadleaf Forest provide high value erosion control due to their ability to absorb flood waters and create functional drag."

"P 38 5.9.1.2 Environmental Consequences of the Alternative. This is a serious list of adverse effects affecting the jurisdictional wetlands. The impacts to the Pacific Salt Marsh and tidelands are especially troubling. Address and mitigate."

"E-14 "Wetland types that are regionally rare receive higher scores." The Salt marsh is regionally rare and should have received a very high score."

graminoid species such as bluejoint (Calamagrostis canadensis), polar grass (Arctagrostis latifolia), tufted hair grass (Deschampsia caespitosa) and glaucous bluegrass (Poa glauca)." As previously noted, this is in error. These are all native grasses."

"E-15 Wetlands provide important functions..." "P E-51 Field Trip Report from September 30, 2016 for 3 hours total "Other than changes to vegetated and unvegetated wetlands islands in the Resurrection River, personnel did not observe any significant changes to vegetation to the 2004 delineated wetlands." These changes occurred east of the main RW 13-31, not west, as noted below." "Except for the two PEM1/SS1B wetlands at the north end of the two runways, all other delineated wetland had saturation to the surface or had standing water from 1 to 12 inches. Analysts did not check hydric soils since as stated above, the majority of wetlands have saturation to the surface or standing water year round." The wetlands should be treated as such with avoid, minimize, and mitigation actions."

"E-27 Appendix B: Updated 2004 Wetland Field Delineation" "2004 data forms are much more complete with associated plant species and other data entries." "However, they do not address this Proposed Alternative project area and are mostly irrelevant." "Cow moose with 2 calves noted on SW03." "How were these 10 sample sites chosen? SW01, SW02, SW03 and SW08 are on AKRR land, not within the Seward Airport boundary. Why were these sites noted? The AKRR filled the pond south of SW01 in 2015 (I believe). The AKRR clear cut the trees south of SW08, leaving only a fringe west of Airport Road. In 2018, they began filling this acreage with gravel. DOT clear cut the trees from SW05, SW06, and SW 07 since 2016. That leaves 5 of the 10 sites relevant. Redo this wetland analysis to include relevant data sites. Update and verify this data. June or July field study would be better than September, when plants are dormant. The critical areas, ie coastal ecosystem including the salt marsh, beach ryegrass berm, associated jurisdictional Lyngbye sedge wetlands areas south of the new RW 16-34 are not included and should be."

"E 65 SW04 (Site in south of Airport Road cul de sac at edge of forest) P. sitchensis is probably P. x lutzii. Equisetum palustre and Carex aquatilis are not salt tolerant; this area is inundated by spring and other high tides.

"Figure 2: south end of the current apron, taxiway F (T/W F): The trees serve as an important storm and windbreak for the airport and help protect parked planes from south winds and crosswinds, not to mention habitat for wildlife and perches for Bald Eagles. They are in a wetland as well; the water table is very high here. To help reduce flood impacts, AVOID removing these trees and associated salmonberries, elderberries, alders and willows." Update: according to the errata Sheet, this staging area was removed." "The new runway will be located even farther from these trees. There is no reason to clear this area. Note them as "obstacle notes" in the airport description." "P 9 Table WETLANDS: "25 acres of unavoidable impacts to the wetlands" is a substantial negative effect to this ecosystem. Punching a Float Plane Channel through the coastal berm and surrounding jurisdictional Lyngbye sedge wetlands, extending the runway into the wetland pond, and allowing Resurrection River to "restore" part of the original floodplain will substantially reduce the natural system's ability to retain floodwater and storm water runoff. After reducing this impact to the barest minimal impact by moving new RW 16-34 back or shortening it, deleting the float plane channel and access road, retaining the trees south of the Airport Road cul-de-sac, hauling off all disposal materials off-site, retaining the vegetation north of the airport apron, retaining trees and shrubs on the CAP property, etc, at least 25 acres of comparable wetlands should be placed into a conservation easement.

"According to the 2008 USACE/EPA Compensatory Mitigation for Losses of Aquatic Resources, Final Rule: "All practicable steps to avoid and/or minimize impacts to aquatic resources must be taken before proposing compensatory mitigation to offset project impacts." These resources include wetlands, streams, and other aquatic sites. The Mitigation Sequence is Avoid, Minimize, then apply Compensatory Mitigation."

"The Plan should include options for Compensatory Mitigation including conservation easements on similar wetland habitat, restoration, enhancement, creation, and/or preservation of aquatic resources to compensate for any unavoidable impacts."

Mitigation for impacts to $\sim\!25$ acres of wetlands should include conservation of wetlands in the area with a conservation easement. A potential privately owned parcel is KPB Parcel ID #14529003 at the mile one Nash Road wetlands, on the east side of Nash Road adjacent to Cook Inlet Region KPB #14511001and across from ADFG KPB #14502217." Carol Griswold (01/09/19). Email to Solstice with attached letter, image files

"A runway through the marsh will destroy bird habitat that exists nowhere else in Seward." Ann C. Ghicadus (08/15/19). Hearing written comment

"The wetlands are damaged. They're used by the community." Bob Linville (08/15/19), Resident, Pilot. Hearing testimony

"Seward has used existing 4240 ft runway 13-31 in a two runway configuration for more than 50 years. The selection of Alternative 2.2 would allow the Resurrection River to breach abandoned Runway 13-31 which it would do in short order. This scenario vastly diminishes the potential uses of our airport and destroys wetlands used extensively by local residents and birds. These wetlands are extremely valuable and may be the best bird habitat ecosystem in the area. And for what? So that Seward's future economy and use, both private and commercial, can be constricted by a 1000 ft shorter one runway airport." Bob Linville (08/20/19). Email to Solstice with letter attached

"...my second concern would be the waterfowl impact that the new runway would potentially have, by building through the wetland marsh. This marsh is a very important rookery habitat in this geographic area. I don't believe there's anything else around where birds can take refuge, during winter and fall gales, within a fifty-mile radius, from what I heard. I don't know if that's accurate or not, but from what I've seen out there while duck hunting, there's numerous species, probably numbering in the tens, maybe 50 species -- I don't know; you'd have to talk to the SeaLife Center people about that -- but quite a significant amount of wildlife uses this wetland habitat, and it would be a shame to destroy it without exploring other alternatives." Jan Bukac (08/15/19), Resident. Hearing testimony

"There are swans, large birds; there are geese, large birds; lots of Arctic terns, lots of gulls. This is a very importantly habitat, that right now the planes are farther back and they go over these birds. Pushing that airport runway closer to the estuarian pond will put that danger much closer, and I think it's an unacceptable risk." Carol Griswold (08/15/19), Resident. Hearing testimony

Response:

Wetland impacts have been a major factor for consideration in the EA process. As required by NEPA, the best available scientific data for the area was used in this document, which is described below. FAA approved this document for public review; in doing so, FAA found that the EA adheres to the intent of NEPA's required guidelines, specifically FAA's Order 1050.1 Environmental Impacts: Policies and Procedures and their Environmental Desk Reference for Airport Actions.

Wetlands information in the EA is based on a formal wetlands delineation completed at the airport. The delineation and mapping was supported by fieldwork completed by professional wetlands scientists. Please see the Appendix D of the Final EA for the delineation, mapping, and supporting field sheets and photographs. Total Wetland avoidance is not possible to meet the purpose and need for this project, and wetlands minimization and mitigation have been addressed in section 5.9.1.3 of the Final EA. During the Clean Water Act Section 404 permit application process, the USACE will determine if a re-delineation of the wetland needs to be completed. Vegetation information is based on the wetlands fieldwork, which documented plant species. These data are found in Appendix D of the Final EA. Invasive species information comes from the University of Alaska Anchorage (UAA) Center for Conservation Science Alaska Natural Heritage Program AKEPIC Data Portal which can be accessed at: http://aknhp.uaa.alaska.edu/apps/akepic/. Per public feedback, the information was re-verified, and species that were reported as invasive but are native were removed from the environmental document. Specifications for this project

will include requirements for native seed mixes, as is standard for DOT&PF projects. The best available scientific bird data for the area, as directed by NEPA, was used in this document, and resources included the USFWS' Information for Planning and Consultation (IPaC) with additional information provided by more USFWS resources and local observations as cited within the EA

NEPA also requires that the regulatory agencies (and experts) that have jurisdiction over the relevant resources (e.g., USACE regarding wetlands and USFWS regarding migratory birds) are consulted. The USACE and USFWS, among other agencies, are and have been consulted throughout the project and EA process. See the Decisions/Involvement Process/Comment Schedule section of this document for a list of regulatory agencies that have been consulted throughout the EA process. Regulatory agencies asked questions, provided information, and gave written and verbal comments throughout the scoping period and throughout the EA process. Agencies were provided an announcement of availability of the Draft EA, which included a link to the document on the project website (http://dot.alaska.gov/creg/sewardairport/index.shtml). All comments from agencies have been included in the EA. The project team did not receive comments from any agency with jurisdiction over migratory birds or the related importance of bird habitat at the head of Resurrection Bay during this process; upon receiving opportunities to review the Draft EA, agencies did not voice concerns regarding birds in the area.

Numerous alternatives were explored for this effort. An analysis of the alternatives and rational for selection of the design alternative is found here: http://dot.alaska.gov/creg/sewardairport/documents/Position-Paper.pdf. After approval

http://dot.alaska.gov/creg/sewardairport/documents/Position-Paper.pdf. After approval of the environmental document for this project, the project will continue through the design process and obtain the necessary environmental permits. This includes a wetland permit from the USACE. Further efforts to incorporate minimization into the project design will be documented at that time and the required compensatory mitigation will be determined.

Regarding the statement that the "entire airport is wetlands" because habitats are listed as saturated or inundated. This is not an accurate statement. For a given point to be classified as wetlands it must demonstrate three criteria; hydric soils, hydrophytic vegetation and hydrology over a sufficient timeframe to demonstrate that that point is wetland. The exception is a point that can be reasonably demonstrated to have been wetland previously and that was illegially converted. Therefore, currently there are wetlands of various types on the airport but, the entire airport is not currently wetland.

Your technical edits that help to improve the quality of the Draft EA are appreciated and will be incorporated as appropriate.

WILDLIFE, FISH, BIRD IMPACTS

Comments:

"...the current Alternative of 2.2, will have major impacts on wildlife that are completely unacceptable." Tyler Pelo (12/12/18). 3rd public meeting written comment

"...on paper the wetlands are small and the animal species that live and migrate over the area are not of high concern. It does not necessarily qualify for government protection." "...it is recognized that there will be wetland destruction and migration will be impacted. I ask as this project moves forward, efforts should be made to restore or create alternative habitat in the area. Our local wildlife is an integral part of the spirit of Seward and helps attract visitors. Do what you can to

enable the wildlife to continue to vitalize this land." Jane Belovarac (12/12/18). 3rd public meeting written comment

"...I hope our local knowledge of the area is taken seriously. Not only are we locals be we work in the scientific field and have been trained to assess habitats and the wildlife that use those habitats along with how different construction projects that take place in a cold marine environments will be effected. I have also attached some photos of Dusky Geese at the airport wetlands. (a species not mentioned at all in the report) Dusky Geese are species in decline and on the Audubon watch list. This is a species that is currently and has been studied by ADFG due to its declining status. (please contact them for official input)"

"P 7: Purpose and Need: Protect airport from further flood damage Environmental Impacts: Biological Resources: I strongly disagree with this unsubstantiated Statement: The proposed project could impact the habitat of at least 30 Birds of Conservation Concern. Even though birds have wings they cannot and will not just move to other nearby locations, there are none. Birds learn what habitats, and migration routes to use from their parents. It is passed down with each generation. Many species cannot just move or adapt. Especially when there is no other suitable habitat for them to move to and the time frame is so short! The specific microhabitats currently provided by the wetland complex are extremely limited in this area and in Resurrection Bay this is a very unique and significant place for wildlife. This project and its long-term consequences will wipe out essential and critical habitat; it is unrealistic and unsubstantiated expectation that the birds could find suitable habitat. There is no other salt marsh system at nearby locations." "These birds may also be dissuaded from nesting or using the head of Resurrection Bay as a "stopover" during migration." Dissuading/hazing exhausted migratory birds from the only and most suitable feeding and resting habitat at the head of Resurrection Bay is indefensible. Who/what staff is going to do this? This would be a full time 24 hours a day job in spring and summer. Once again, the birds have no other option of habitat to move to they will still come and the result will be killing birds. There is just no other habitat option for them to move to once hazed. The birds migrate from the south up the bay and must rest before crossing the mountain passes before continuing on to their breeding grounds, you cannot change migration routes."

"P13-18 Migratory birds. Why have all the 1000's of migratory waterfowl (ducks, geese and swans, cranes) been excluded and also the passerines such as many sparrow species. These birds not only migrate through the area but also nest in the uplands and the pond area. Dusky Canada Geese (population declining) use this area as staging grounds. Northern Pintail, Gadwall, Mallards, Greenwing teal, Great Blue Herons and Bufflehead all nest in the wetlands, Along with many songbirds and shorebirds. Removing 3.5 acres of high quality habitat is not a minor loss it's a huge loss, there is a reason it is classified as high quality. There is no other high quality habitat in the other 25 acres. Besides the fact that the habitat type is different, the area constantly disturbed my fishermen, atv's and other recreational user groups. It is not comparable. On top of that if someone is hazing the birds away from the runaway and airport area, how are the birds and other wild life able to use those other areas? Ebird.org is sighted as a source which is great; but take notice of the location of the sightings and report locations; they are all from the surrounding airport area, tidelands, mudflats and grasslands. This is the habitat the wildlife use at the head of the bay. If there were other locations "suitable habitats" the wildlife would already be using those areas and you would see that in the reports. But you will not find those reports because there is no other suitable habitats the wildlife are all funneled into the airport wetlands."

"Denying that fact that two species of Salmon, Stickle-backs, flounder, sculpin depend on this small ecosystem for their reproduction and survival will not be affected is very poorly researched." Tasha DiMarzio (01/09/19). Email to Solstice with attached letter, image files

"...buried on page 47, 5.9.3.4 Consultation, Permits, and Other Approvals "A tidelands survey has been completed, and a DNR land use permit will not be needed for work associated with the float plane channel. A USACE permit will be needed; further design will determine whether the float plane channel will require a Section 10 or a Section 404 permit." Where is the tidelands survey documentation? Why is a DNR land use permit not needed for the extremely destructive float plane channel? Will the USACE permit consider the tremendous impact of the float plane channel and extension of RW 16-34 into the salt marsh ecosystem?"

"...buried on page 50, "These birds may also be dissuaded from nesting or using the head of Resurrection Bay as a "stopover" during migration." Dissuading/hazing exhausted migratory birds from the only and most suitable feeding and resting habitat at the head of Resurrection Bay is unconscionable. Hazing birds to prevent their use of the head of Resurrection Bay is indefensible." "...page 13, "The WAP identifies 88 bird species as Species of Conservation Need and 86 species as Species of Greatest Conservation Need". This list should be considered along with the above 30 species of conservation concern."

"P 11 5.2.1 Affected Environment "No marine mammals or fish occur in the project area, which about 0.25 miles from Resurrection Bay." Please clarify this statement. As noted, chum and pink salmon spawn in project area; sticklebacks are anadromous, and breed and rear there; habitat for flounders, dolly varden, sculpin. Records from ADFG from a long-term Three-spine Stickleback study should be included and considered. See comments under 5.2.2.1" "Project area runway pavement is less than 500 feet from Resurrection Bay. Project Runway Safety Area and Fill Limits are about 10 feet from the bay, according to Errata Sheet figure. Correct the data and conclusions, and resubmit."

P 11 5.2.1.1 Essential Fish Habitat Aside from noting anadromous streams on the figure, no fish survey data of the impacted area was included in this document. This is a serious omission and must be rectified.

"I have documented fish data through personal observations, 11 years of COASST surveys of Airport Beach, and stickleback studies conducted under ADFG permit with attached photos. AWC Code 231-30-10075, located between RW 16-34 and 13-31 contains spawning and rearing habitat for Pinks and Chum salmon. An uncatalogued stream that aligns with the proposed Float Plane Channel contains spawning Pinks, and the Lygnbye sedge wetlands is rearing and home habitat for many other species including threespine sticklebacks, flounder, sculpins, and Dolly Varden, and salmonids. ADFG fish biologist Will Frost has updated the Anadromous Waters Catalog and this information will be added to the AWC in June, 2019. "The updates to the Anadromous Waters Catalog that I submitted last winter will be added to the AWC this coming June. I added an unnamed tributary (adjacent to RW 16/34) and extend the upper reach of Stream No. 231-30-10075 and updated hydrography arcs for Airport Creek. These additions were not included in the Draft EA because the nominations were added after the scoping was completed." (See citation in Griswold letter.)

"P 13 Table 2 Has numerous errors. Add Bristle-thighed Curlew, migrating, Coastal Barrens. Correct the data and resubmit. P 15 Table 3: MANY errors in this Table, too many to expect a public member to correct. For example: Add Spotted Sandpiper to Pond, River, Stream. Add Greater

Yellowlegs wherever Lesser Yellowlegs is listed. Delete Kittlitz's Murrelet from River, Stream. Delete Marbled Murrelet from Riverine Tall Scrub. ETC. Correct the data and resubmit."

"P 16 5.2.2 Environmental Consequences of Alternatives The serious adverse impacts to species of concern, sensitive species, migratory birds, bald and golden eagles and their habitats; adverse impacts on reproductive success rates; and substantial loss, reduction, degradation, disturbance, and fragmentation of native species' habitats and populations must be addressed and minimized. I find these concerns dismissed instead of addressed in this report. Address the environmental consequences, discuss and apply measures to avoid, minimize, and mitigate the negative effects and resubmit."

"P 16 5.2.2.1 Essential Fish Habitat Absence of evidence is not evidence of absence. The proposed Float Plane Channel slices right through the Lyngbye sedge low marsh zone, and important rearing, breeding, and spawning habitat for Dolly Varden, three-spine sticklebacks, sculpins, flounders, and pink salmon. The proposed Runway 16-34 extends right into the productive salt marsh. The lack of documentation by agencies does NOT mean "thus none would be impacted."

"P 16 5.2.2.3 Migratory Birds and Eagles Lowland sedge habitat is a very important food source for migratory birds, and provides nesting habitat for migratory residents. Sedges are an important food for voles which provide food for Short-eared Owls, Great Horned Owls, Northern Harriers, Sandhill Cranes, bears, and coyotes. This large sedge habitat should not be dismissed with a low rank."

"P 17 Continued errors regarding bird species information, too many for a member of the public to correct. Black Oystercatcher, Kittlitz's Murrelet, Aleutian Tern, Caspian Tern, Red-faced Cormorant, Pelagic Cormorant, Peregrine Falcon do not breed here. Marbled Godwits do not nest here. ETC. Very poorly researched. Correct data and resubmit."

"P 17 "However, because the Proposed Action would result in filling only 0.015% of the approximately 17,900 acres of Coastal Barrens that exit at the head of Resurrection Bay, impacts to birds using this habitat would be minimal. Birds would be expected to move to the ample adjacent Coastal Barrens at the head of the bay." NOT. This is an outrageous and unsupported expectation that has been applied in this report to all habitats. There is no suitable equivalent for the loss of these 2.6 acres of tidelands, 0.7 acres of Pacific salt marsh habitat, 21.5 acres of lowland sedgeshrub habitat, 0.08 acres of pond habitat, 0.023 acres of Lowland Tall Scrub, 1.013 acres of Riverine Broadleaf Forest." "The impacts are NOT minimal. The birds cannot fly to other suitable habitat at the head of the bay because there is no equivalent high-quality habitat. Ask the birders where the birds are: especially at the airport tidelands, Lyngbye sedges, Pacific salt marsh, and in streams, sedge meadows, alder and willow thickets, spruce forest, pond and grassland. The majority of these incredible birds are specialists needing particular feeding, breedgin, nesting, and resting habitats. They are not like pigeons or starlings that can adapt to a wide variety of situations and thrive. This is it, and this project is destroying their home." "Don't these conclusions make any difference? Smaller, less, less, less? "...smaller area available for resting before continued travel; less territory for courtship, pair bonding, and mating; less nesting habitat; less area available during colder weather." The actual filling is only part of the impact. Building the runway INTO these fragile habitats brings the aircraft closer and lower, creates more noise and disturbance, and disrupts feeding, nesting, resting, and rearing in the entire surrounding area. This impact cannot be so summarily dismissed."

"This section detailing specific birds is embarrassingly inaccurate, incomplete, and poorly researched. I did not bother to rewrite it but here are a few corrections: Marbled Godwits do not

nest here, but use the Coastal Barrens extensively during migration. Rare Bristle-thighed Curlews have also been documented using the Coastal Barrens during migration, most recently there were four in May 2018. Aleutian Terns do not nest here. Arctic Terns do. Black Oystercatchers, Red-faced and Pelagic Cormorants, Peregrine Falcons do not nest here. Correct this data and resubmit." "P 18 I completely disagree with sweeping and erroneous conclusion in paragraph above chart, Biological Resources statement, and Table 4, etc. Expectations that birds will move to other nearby locations are false as there is no Pacific tidal marsh anywhere else, or equivalent sedge meadows, etc. Correct this erroneous expectation, provide options to avoid, minimize, and mitigate, and reevaluate." "P 18 and 19 This statement is not true: Arctic Tern colony will be not impacted because construction will follow USFWS timing guidelines and avoid work directly in this area. The terns arrive in late April and leave in mid-July or early August, depending on weather and other conditions. Will the project stop work during this critical time? No. As noted on page 19 the suggested USFWS window is May 1 to July 15 regardless of reality. As mentioned previously, extending the runway into the salt marsh and placing the riprap and fill on top of the terns' nesting and feeding habitat will definitely continue to disturb them after the airport project is completed. They will notice and react negatively to the new runway in their kitchen, bedroom, and nursery. Correct this unrealistic statement, provide options to avoid, minimize, and mitigate, and reevaluate. Move the runway 16-34 back, reduce footprint of riprap and shore armoring by making as steep as possible, use clean rock."

"P 37 other uncatalogued streams support anadromous species including Pink, Silver, Chum, and 3-spine Sticklebacks. Correct data and resubmit." Carol Griswold (01/09/19). Email to Solstice with attached letter, image files

"..."Non-adverse impacts to Essential Fish Habitat (EFH) are expected where instream work occurs", again this is not the case. I am an aquarist at the Alaska Sealife Center and as such I regularly take samples in the waters of the area to be affected. This area is a critical nursery for young fish including but not limited too, Dolly Varden, Pink Salmon, Chum Salmon, Sticklebacks, Starry Flounder, and Staghorn Sculpin. How can filling in slews and ponds that these fish use have not negative affect on them. If I were to bulldoze your house and fill in the hole where it once stood, tell you to go home and have a nice day I think that may have an "adverse impact" to your life. But that's just me thinking out loud...may I suggest someone doing an honest assessment of the wildlife that uses the area that will be affected during the months of May or June when the area is not frozen so that a true representation can be procured." Charles DiMarzio (01/09/19). Email to Solstice

"Another objection by planners was the regulation problems with trying to mover the Resurrection river away from runway #31; primarily from FEMA, and the Department of Fish and Game, and possibly other government agencies. These objections are a fallacy. Working in a glacial stream subject to annual flooding to control it should not be a factor for Fish and Game. The fish seasonally swim up the river, will move when the stream moves. Remediation construction with rip rap should not be noticed by the fish. A violent glacial river is always is changing and is not a problem for fish. Much greater impact would be experience when the river breaks over runway #31." Steven C. Leirer (08/15/19). Email to Solstice; attached letter to DOT&PF

"The State is also stating there's less salmon impact. I've personally been out there with Fish and Game and documented anadramous streams and salmon spawning areas that will be affected to a greater degree by filling in the wetlands with Alternative 2.2, not to mention the negative effects on migratory birds and on recreational users." Tyler Pelo (08/15/19), Resident. Hearing testimony

Response:

The considerations given to wildlife, birds, and fish impacts within the EA are based on the best publicly available scientific data for the area at the time the EA was drafted, as required by NEPA. When FAA approved this document for public review, FAA found that the EA adheres to the intent of NEPA's required guidelines as described in the Wetlands Impacts section above in this document.

The EA's data for fish in the area included ADF&G's Anadromous Waters Catalog and the NMFS' Essential Fish Habitat Mapper. In 2019, after the Draft EA was released, the Anadromous Stream Catalog (available online) was updated and an additional stream parallel to and crossing the float plane channel was mapped as anadromous. (In addition, salmon species use of some streams were added or changed and some stream numbers were changed). These recent changes and potential impacts have been incorporated into the EA. As has FAA's February 2020 Essential Fish Habitat consultation with the NMFS and resulting conservation recommendations (see Appendix AA for these documents).

Wetlands functional ranking was based on a formal wetlands delineation supported by fieldwork, as described in the Wetlands Impacts section of this document. The EA's information on birds in the area was drawn from USFWS's IPaC; National Audubon Society and the Cornell Lab of Ornithology, and information from Carol Griswold received in May 2017. As per the NEPA directives, these are the best publicly available scientific data for fish, wetlands, and birds in the area. As noted in the Wetlands Impacts section of this document, regulatory resource agencies involved throughout the project did not voice concerns regarding birds in the area. ADF&G and USFWS provided written scoping comments regarding biological resources, all of which are presented within the EA. ADF&G stated that it did not have wildlife concerns with the proposed project. USFWS commented that the project is following the recommended time period (work windows) for avoiding land disturbance and vegetative clearing for nesting migratory species and is coordinating with USFWS for bald eagle nests.

NEPA requires that the regulatory agencies (and experts) that have jurisdiction over the resources considered in the EA are consulted; this is also detailed further in the Wetlands Impacts section of this document. For a list of regulatory agencies that have been consulted throughout the EA process, especially those that pertain to wildlife, fish, and bird, see the Decisions/Involvement Process/Comment Schedule section of this document. Comments requested additional clarification regarding communications with ADF&G and FEMA. In addition to other agencies, these agencies were informed about this project throughout the process. On January 25, 2017, ADF&G commented via email to say that it did not have wildlife concerns regarding the proposed project. ADF&G attended the March 2, 2017 agency scoping meeting, and during discussion of proposed alternatives said that, from a fish habitat perspective, the second alternative (2.2) is much more desirable.

On July 26, 2018 Hydraulic Mapping and Modeling (a DOT&PF consultant) emailed FEMA for guidance for work potentially in the regulatory floodway of the Resurrection River. FEMA responded saying that the project should work with a local floodplain development permit and added, on July 27, 2018, that clarification is needed regarding development within the floodplain. Additional consultant comments requesting clarification and guidance on July 27 and 30, 2018 and August 8 and 10, 2018 ensued. On August 23, 2018, a DOT&PF hydrologist provided a summary of FEMA policy regarding water surface rise in a floodway ultimately stating that the project will cause no encroachment in the floodway and hence

the no rise criterion is not required; the 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, the project is not proposing encroachment in the floodway. See Appendix A for the full comments.

All required permits for the Proposed Alternative would be obtained during the detailed design phase. A DNR Land Use permit is only needed for work on land owned by the State of Alaska and managed by the DNR (including navigable waters). Alaska Tideland Survey 174 is a state document which shows the tidelands conveyed to the City of Seward from the State of Alaska. This is a public document available online

(http://dnr.alaska.gov/projects/las/#landflag/y/reporttype/abstract/filetype/ATS/searchtype/casefile/filenumber/174). As part of this project, DOT&PF commissioned a survey of the land adjacent to the airport, including tidelands, to determine where planned project components were located in relation to the recorded boundaries. This is what led to the determination that additional land purchased for a possible future runway expansion involved land owned by the City of Seward and not the State of Alaska (DNR). The recording of this right of way information is currently under review by DOT&PF. Once finalized this plat will be entered into public record. The DOT&PF manages the land at the airport. A USACE Clean Water Act (CWA) Section 404 permit will be required for fill in wetlands and float plane ramp/access construction. The USACE will complete and NEPA and CWA analysis of impacts to wetlands and waters of the US.

As stated throughout this document, your technical edits help to improve the quality of the Draft EA, are appreciated, and will be incorporated as appropriate.

Agency Scoping Comment

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February 28, 2020 National Marine Fisheries Service Comment

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Keith Gordon Federal Aviation Administration Alaska Region 222 West 7th Avenue, #14 Anchorage, AK 99513-7587

Re: Essential Fish Habitat Assessment for Seward Airport Improvements

Dear Mr. Gordon:

The National Marine Fisheries Service (NMFS) has reviewed the Federal Aviation Administration's (FAA) Essential Fish Habitat (EFH) Assessment for the airport improvements at Seward, Alaska. The purpose of the proposed project is to upgrade facilities at the Seward Airport and protect the airport from further damage caused by recurrent flooding. The project would require runway surface removal, filling saltmarsh, and dredging a new float plane channel. Section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) requires federal agencies to consult with NMFS on all actions that may adversely affect Essential Fish Habitat (EFH).

Essential Fish Habitat

The Alaska Department of Fish and Game's Anadromous Waters Catalog identifies several unnamed freshwater streams in the project area. Additionally, the nearshore marine areas are designated as EFH for all five species of Pacific salmon. Specifically, fresh water streams within the airport project area support runs of pink salmon (*Oncorhynchus gorbuscha*). Juvenile salmon use nearshore habitat during spring and early summer for feeding and predator avoidance prior to migrating to sea.

The proposed project would remove a culvert that currently acts as a fish passage barrier. Removing this barrier will provide access to approximately 800 linear feet of potential anadromous fish habitat. Extension of the main runway would result in the filling of 350 feet of an unnamed anadromous stream and would permanently block passage to pink salmon. New water access will be created via a 250 foot channel dredged for float plane traffic and access to moorage. The proposed project will impact local hydrology in the area and may alter the salinity of the saltmarsh. However, increased saltwater intrusion is not likely to prevent pink salmon from utilizing this habitat.



EFH Conservation Recommendations

This project proposes measures to avoid, minimize and mitigate potential impacts to EFH. These measures include:

- avoid construction activities during salmon spawning;
- implement a Hazardous Materials Control Plan; and,
- reuse dredged material for fill, as practicable.

The FAA has concluded their action may adversely affect EFH. Further, NMFS is required under Section 305(b) of the MSA to make EFH conservation recommendations for actions that may adversely affect EFH. In accordance with Section 305(b)(4)(A) of the MSA, NMFS makes the following EFH Conservation Recommendations:

- 1. Excavation activities (adjacent areas and nearshore) should be conducted at low tide.
- 2. Source fill material locally to prevent the introduction of invasive species.
- 3. Implement an erosion control plan and Best Management Practices plan to reduce turbidity.

Conclusion

Under section 305(b)(4)(B) of the MSA, the Federal action agency is required to respond to NMFS EFH Conservation Recommendations in writing within 30 days. If your response is inconsistent with our recommendations, please explain the reasons for not following our recommendations, including the scientific justification for any disagreements over the anticipated effects of the proposed action and the measures needed to avoid, minimize, mitigate, or offset such effects (50 CFR 600.920(k)).

Section 305 of the MSA and associated EFH consultation is satisfied. Should the project or preferred alternative change significantly, NMFS wishes to be informed of any such changes in order to reassess our determination. If you have any questions regarding this consultation, please contact Seanbob.kelly@noaa.gov or (907) 271-5195.

Sincerely,

James W. Balsiger

Administrator, Alaska Region

CC:

William Frost - ADFG - william.frost@alaska.gov Keith Gordon - FAA - keith.gordon@faa.gov Jack Gilbertsen - FAA - jack.gilbertsen@faa.gov Kristi Warden - FAA- kirsti.warden@faa.gov

March 2, 2020 Federal Aviation Administration Response

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March 2, 2020

Mr. James W. Balsinger Administrator, Alaska Region National Marine Fisheries Service P.O. Box 21668 Juneau, Alaska 99802-1668

Dear Administrator Balsinger,

In response to the National Marine Fisheries Service (NMFS) February 28, 2020 letter titled "Essential Fish Habitat Assessment for Seward Airport Improvements" the U.S. Department of Transportation (DOT) Federal Aviation Administration (FAA) provides the following response per the requirements of the Magnuson-Stevens Fishery Conservation and Management Act.

The FAA accepts all conservation recommendations as stated and has incorporated those not already stated in the Final Environmental Assessment (FEA) into the FEA.

Thank you for your and your staff's time and effort.

Sincerely,

Kristi A. Warden

Director, Airports Division

Alaskan Region

Federal Aviation Administration

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APPENDIX B

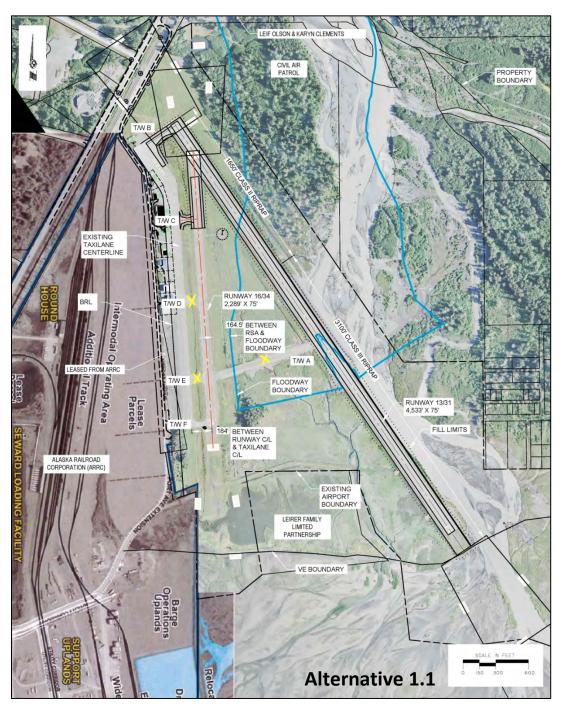
ALTERNATIVES DROPPED FROM FURTHER CONSIDERATION



APPENDIX B

Alternatives Dropped from Further Consideration

Alternatives Dropped from Further Consideration are described in Section 4.1 of this Environmental Assessment (EA). A description of preliminary alternatives dropped during the scoping phase of the project can be found in the Scoping Report (available at http://www.dot.alaska.gov/creg/sewardairport/documents.shtml). This appendix provides further explanation for the elimination of Alternative 1.1 as described in Section 4.1.1 of this EA.





Alternative 1.1 would reconstruct and raise Runway 13-31 above the 100-year flood level with 2 feet of freeboard (per Executive Order, dated January 30, 2015). The existing runway would remain at its current length of 4,533 feet. Riprap would have been installed within the Resurrection River to protect Runway 13-31. Taxiways B and C would have been reconstructed to match into Runway 13-31 raised profile and entrance Taxiways A, D, and E would have been reconfigured or eliminated to comply with new FAA guidance.

Runway 13-31 is located adjacent to the Resurrection River. Modeling, using 2 feet of freeboard above the 100-year flood level, showed up to a 4-foot increase in the base flood elevation (BFE) over portions of the upstream floodplain. The runway embankment was raised over 6 feet in some areas with an overall average rise of 4.4 feet. This additional fill would result in a backing up of floodwaters onto an additional 159 acres of private, state, and native allotments along the Resurrection River as compared to the No Build option or Alternative 2.2 (Alternative 2.2 would increase flooding on 22 acres, while reducing flooding on another 44 acres). Higher floodwater velocities produced by the river could result in increased erosion and scour over time of the proposed reinforced embankment.

Since this option produces fill into the regulatory floodway, a modification to the effective Flood Insurance Rate Map (FIRM) and Floodway Map would be required. The associated Letter of Map Revision (LOMR) would require extensive hydraulic analysis, would need to meet regulatory requirements, and will require mitigation for affected property owners. This would increase the cost of the project as well as the ultimate timeline for completion. The existing runway is currently under weight restrictions, due to past flood damage, limiting the type of aircraft that can access the airport.

Executive Order 11988 "requires federal agencies to avoid to the extent possible, the long and short-term adverse impacts associated with the occupancy and modification of the 100-year floodplains and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative". Alternative 1.1 maintains the portion of the existing airport which lies within the regulatory floodway (sections of Runway 13-31 and Taxiway A). The location of Runway 13-31 to the Resurrection River puts the runway at a greater risk of overtopping during a major flood event, even after it is raised. At the very least, future maintenance and operation costs associated with higher than expected flood levels would be a burden. The airport's use for emergency services is crucial during flood events which could also impair highway travel.

To raise and reinforce Runway 13-31 would require placing riprap below the ordinary high water mark of the Resurrection River. This has implications for fish habitat within the river as well as navigability concerns for this braided river channel. These potential impacts would require further analysis if this alternative were carried forward into the EA.

DOT Order 5650 states "that DOT agencies should ensure that proper consideration is given to avoid and mitigate adverse floodplain impacts in agency actions...." Alternative 1.1 has a much greater impact to the floodplain than the No Build or Alternative 2.2.

Taken together, these considerations qualify the floodplain impacts associated with Alternative 1.1 as a significant encroachment on the floodplain, as defined in the following excerpt from Section 14.2.1.1 of the 1015.1F Desk Reference:

As defined in DOT Order 5650.2, significant encroachment is an encroachment in a floodplain that results in one or more of the following construction or flood-related

impacts: 1) considerable probability of loss of human life, 2) likely future damage associated with the encroachment that could be substantial in cost or extent, including interruption of service on or loss of a vital transportation facility, and 3) a notable adverse impact on "natural and beneficial floodplain values."

This guidance states that an alternative with a significant floodplain encroachment should not be selected if a practicable alternative exists. Alternative 2.2 does not qualify as a significant floodplain encroachment and would also allow for the eventual breaching of Runway 13-31, thereby restoring part of the original floodplain.

Furthermore, FAA Order 1050.1F provides the following Significance Threshold for Floodplains:

The action would cause notable adverse impacts on natural and beneficial floodplain values. Natural and beneficial floodplain values are defined in Paragraph 4.k of DOT Order 5650.2, Floodplain Management and Protection.

Proposed actions that would result in impacts at or above these defined Significance Thresholds require preparation of an EIS.

DOT Order 5650.2, paragraph 4.k states that natural and beneficial floodplain values include, but are not limited to: natural moderation of floods, water quality maintenance, groundwater recharge, fish, wildlife, plants, open space, natural beauty, scientific study, outdoor recreation, agriculture, and forestry. The 1050.1F Desk Reference also references factors to consider when assessing impacts on a floodplain's natural and beneficial values. Most notably, "would the proposed action or alternative(s) cause flow alterations that would result in unacceptable upstream or downstream flooding?"

The selection of Alternative 1.1 as the proposed action could therefore result in the need to prepare an EIS for this project as the potential floodplain impacts meet or exceed the Significance Threshold set for floodplains.

APPENDIX C

ENVIRONMENTAL IMPACT CATEGORIES: NON-ISSUES

Appendix C

Environmental Impact Categories: Non-issues

The following categories have been determined to be non-issues for this project. These categories do not warrant discussion because there is no potential for impact.

- 1. Air Quality
- 2. Climate
- 3. Coastal Resources
- 4. Department of Transportation Act: Section 4(f)
- 5. Farmlands
- 6. Visual Effects
- 7. Groundwater
- 8. Wild and Scenic Rivers

1. Air Quality

FAA Order 1050.1F sets the significance threshold for air quality as whether, "the action would cause pollutant concentrations to exceed one or more of the National Ambient Air Quality Standards (NAAQS), as established by the Environmental Protection Agency under the Clean Air Act, for any of the time periods analyzed, or to increase the frequency or severity of any such existing violations. The EPA designates those areas not in attainment of the NAAQS as "nonattainment areas". A review of the EPA's list of Nonattainment Areas for All Criteria Pollutants and the ADEC Division of Air Quality's Non-Point Mobile Source Program websites indicate that the Seward Airport does not fall within a nonattainment area. According to the FAA's Airport Environmental Handbook, no air quality analysis is needed if the annual levels of activity at a commercial service airport area are fewer than 1.3 million passengers and fewer than 180,000 operations, or if it is a general aviation airport with fewer than 180,000 annual operations forecast. Current activity at Seward and activity forecasted in the Scoping Report are well below 180,000 operations; therefore no air quality analysis was necessary during the AMP process. The proposed action will not cause an increase in aviation activity and therefore will have no potential for impacting air quality permanently. An Erosion and Sediment Control Plan will be developed for this project which will detail measures to reduce temporary air quality impacts due to construction such as watering for dust control and covering truck loads and stockpiles.

2. Climate

Via the Trump administration's Executive Order titled "Presidential Executive Order on Promoting Energy Independence and Economic Growth" the Trump administration stated:

(c) The Council on Environmental Quality shall rescind its final guidance entitled "Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews," which is referred to in "Notice of Availability," 81 Fed. Reg. 51866 (August 5, 2016).

3. Coastal Resources

The Alaska Coastal Management Program (ACMP) expired by operation of Alaska Statutes 44.66.020 and 44.66.030 on June 30, 2011. As a result, the ACMP was withdrawn from the National Coastal Management Program on July 1, 2011, and Alaska no longer has a Coastal Zone Management Act (CZMA) program. Because a federally approved coastal management program must be administered by a state agency, no other entity may develop or implement a federally approved coastal management program for the state.

As of July 1, 2011, the CZMA Federal consistency provision no longer applies in Alaska. Federal agencies no longer provide Consistency Determinations or Negative Determinations to the State of Alaska CZMA pursuant to 16 U.S.C. 1456(c)(1) and (2), and 15 CFR part 930, subpart C. Persons or applicant agencies for Federal authorizations or funding no longer provide Consistency Certifications to the State of Alaska CZMA pursuant to 16 U.S.C. 1456(c)(3)(A), (B) and (d), and 15 CFR part 930, subparts D, E and F.

4. Department of Transportation Act: Section 4(f)

Based on a review of state and federal agency protected areas in Alaska and City of Seward park locations, the proposed project would not affect any publicly owned park, recreation area, or significant historic site. No legislatively designated special areas, such as state game refugees, sanctuaries, or critical habitat areas are located in the project vicinity.

5. Farmlands

No prime or unique farmlands or farmlands of statewide importance have been designated in Alaska. No farmland or soil of local importance has been identified in the project area (https://www.nrcs.usda.gov/wps/portal/nrcs/detail/ak/soils/surveys/?cid=nrcs142p2_035988).

6. Visual Effects

New lighting is proposed as part of this project. This will consist of adding lights to the new runway 16-34 while removing those on runway 13-31. Therefore no significant change to the amount of light emanating from the airport is anticipated as a result of this project. The proposed action will alter the location of Runway 16-34 but the overall visual characteristics of the existing airport will not be significantly altered.

7. Groundwater

A review of the ADEC Drinking Water Protection Mapper on December 15, 2016 revealed many groundwater sources and associated drinking water protection areas established along the project corridor. The proposes action is not anticipated to impact local aquifers or established drinking water sources.

8. Wild and Scenic Rivers

No Wild and Scenic Rivers are located near the project area (https://www.rivers.gov/alaska.php).

APPENDIX D BIOLOGICAL RESOURCES

Appendix D. Birds of Conservation Concern (BCC) and Bird Species of Conservation Need (SCN)/ Greatest Conservation Need (SGCN) Documented at the Seward Airport

Bird species were documented in the project area through the U.S. Fish and Wildlife Service (USFWS) IPaC (USFWS 2017), eBird (eBird 2017), and resident observations (Griswold 2017), as presented in this appendix.

These birds were then compared with the USFWS 2008 Birds of Conservation Concern (BCC) lists for areas that include Seward (Bird Conservation Regions (BCRs) 4 and 5), Alaska (USFWS Region 7), and the U.S. (National BCCs) (USFWS 2008)). Documented bird species were also compared with the Species of Conservation Need (SCN) and Species of Greatest Conservation Need (SGCN) listed in the 2015 Alaska Wildlife Action Plan (WAP) for the southcentral bioregion (ADF&G 2015).

BCCs and SCN and SGCN Bird Species Documented at the Seward Airport

Bird Species	Documentation/ Observation	BCC Listing			WAP Listing		
	Source	BCR Region	USFWS Region	Nat'l. BCC	SCN	SGCN	
Greater White-fronted Goose (Anser albifrons frontalis)	eBird		None ¹		SCN	SGCN	
Pacific Black Brant (Branta bernicula nigricans)	eBird		None		SCN	SGCN	
Cackling Goose (Branta hutchinsii minima)	eBird	None			SCN	SGCN	
Dusky Canada Goose (Branta canadensis occidentalis)	eBird	None			SCN	SGCN	
Trumpeter Swan (Cygnus buccinator)	eBird	None			SCN	SGCN	
King Eider (Somateria spectablis)	eBird	None			SCN	SGCN	
Common Eider (Somateria mollissima)	eBird	None			SCN	SGCN	
Pacific Black Scoter (Melanitta americana)	eBird	None			SCN	SGCN	
Long-tailed Duck (Clangula hyemalis)	eBird	None			SCN	SGCN	
Rufous Hummingbird (selasphorus rufus)	USFWS IPaC; ebird	None	Region 7	National	SCN	SGCN	
Sandhill Crane (Grus canadensis)	eBird	None			SCN	SGCN	
Black Oystercatcher (Haematopus bachmani)	USFWS IPaC; ebird	None	Region 7	National	SCN	SGCN	
Black-bellied Plover (Pluvialis squatarola)	eBird	None			SCN	SGCN	
American Golden-Plover (Pluvialis dominica)	eBird	None			SCN	SGCN	
Upland Sandpiper (Bartramia longicauda)	Griswold	Region 4 <i>None</i> National		None			
Whimbrel (Numenius phaeopus)	Griswold; ebird	Regions 4, 5	Region 7	National	SCN	SGCN	
Hudsonian Godwit (<i>Limosa haemastica</i>)	Griswold; ebird	4, 5	Region 7	National	SCN	SGCN	
Bar-tailed Godwit (Limosa lapponica)	Griswold	None	Region 7	National	SCN	None	
Marbled Godwit (Limosa fedoa)	USFWS IPaC	Region 5	Region 7	National	SCN	SGCN	
Black Turnstone (Arenaria melanocephala)	eBird	None			SCN	SGCN	
Red Knot (Calidris canutus roselaari)	eBird	None	Region 7	National	SCN	SGCN	

¹Not listed within a region/list that includes Seward, Alaska.

D: 10	Documentation/Observation BCC Listing			WAP Listing			
Bird Species	Source	BCR Region	USFWS Region	Nat'l. BCC	SCN	SGCN	
Surfbird (Calidris virgate)	eBird		None		SCN	SGCN	
Dunlin (Calidris alpine)	Griswold	None	Region 7	National	SCN	SGCN	
Rock Sandpiper (Calidris ptilocnemis ptilocnemis)	USFWS IPaC; Griswold	Region 4	Region 7	National	SCN	SGCN	
Pectoral Sandpiper (Calidris melanotos)	eBird	None			SCN	SGCN	
Semipalmated Sandpiper (Calidris pusilla)	Griswold; ebird	None National			SCN	SGCN	
Western Sandpiper (Calidris mauri)	eBird	None			SCN	SGCN	
Short-billed Dowitcher (<i>Limnodromus griseus</i>)	USFWS IPaC; ebird; Griswold	Regions 4, 5	Region 7	National	SCN	SGCN	
Long-billed Dowitcher (Limnodromus scolopaceus)	eBird	None			SCN	SGCN	
Spotted Sandpiper (Actitus macularius)	eBird		None		SCN	SGCN	
Solitary Sandpiper (<i>Tringa solitaria</i>)	Griswold; ebird	Regions 4, 5	Region 7	National	SCN	SGCN	
Wandering Tattler (<i>Tringa incana</i>)	eBird	None			SCN	SGCN	
Lesser Yellowlegs (Tringa flavipes)	USFWS IPaC; ebird; Griswold	None	Region 7	National	SCN	SGCN	
Common Murre (<i>Uria aalge inornata</i>)	eBird	None			SCN	SGCN	
Pigeon Guillemot (Cepphus columba columba)	eBird	None			SCN	SGCN	
Marbled Murrelet (Brachyramphus marmoratus)	USFWS IPaC; ebird	None	Region 7	National	SCN	SGCN	
Kittlitz's Murrelet (Brachyramphus brevirostris)	USFWS IPaC; ebird	None	Region 7	National	SCN	SGCN	
Cassin's Auklet (Ptychoramphus aleuticus aleuticus)	eBird	None			SCN	SGCN	
Horned Puffin (Fratercula corniculata)	eBird	None			SCN	SGCN	
Tufted Puffin (Fratercula cirrhata)	eBird	None			SCN	SGCN	
Black-legged Kittiwake (Rissa tridactyla)	eBird	None			SCN	SGCN	
Mew Gull (Larus canus brachyrhynchus)	eBird	None			SCN	SGCN	
Herring Gull (Larus smithsonianus)	eBird	None			SCN	SGCN	
Glaucous-winged Gull (Larus glaucescens)	eBird	None			SCN	SGCN	
Aleutian Tern (Onychoprion aleuticus)	eBird	None	Region 7	National	SCN	SGCN	
Caspian Tern (Hydroprogne caspia)	Griswold	Region 5 None		None			
Arctic Tern (Sterna paradisaea)	Griswold; ebird	Region 5	Region 7	None	SCN	SGCN	
Red-throated Loon (Gavia stellate)	eBird		None		SCN	SGCN	
Yellow-billed Loon (Gavia adamsii)	eBird	None	Region 7	National	SCN	SGCN	
Fork-tailed Storm-Petrel (Oceanodroma furcata furcate)	eBird	None		SCN	SGCN		
Red-faced Cormorant (Phalacrocorax urile)	eBird	None	Region 7	None	SCN	SGCN	
Pelagic Cormorant (Phalacrocorax pelagicus pelagicus)	USFWS IPaC; ebird	None	Region 7	None	SCN	SGCN	
Bald Eagle (Haliaeetus leucocephalus)	USFWS IPaC; ebird; Griswold	Region 5	None	National	SCN	SGCN	
Northern Harrier (Circus cyaneus)	eBird	None		SCN	SGCN		
Northern Goshawk (Accipiter gentilis)	Griswold	Region 5 Region 7 None			Λ	None	
Rough-legged Hawk (Buteo lagopus)	eBird	None			SCN	SGCN	
Golden Eagle (Aquila chrysaetos canadensis)	eBird	None		SCN	SGCN		
Short-eared Owl (Asio flammeus)	USFWS IPaC; ebird; Griswold	None National			SCN	SGCN	
Belted Kingfisher (Megaceryle alcyon)	eBird	None			SCN	SGCN	

D. 10	Documentation/ Observation Source	BCC Listing				WAP Listing	
Bird Species		BCR Region	USFWS Region	Nat'l. BCC	SCN	SGCN	
Peregrine Falcon (Falco peregrinus) ²	Griswold	Regions 4, 5	Region 7	National	SCN	SGCN	
Olive-sided Flycatcher (Contopus cooperi)	USFWS IPaC	None Region 7 National			Λ	None	
Alder Flycatcher (Empidonax alnorum)	eBird	None			SCN	SGCN	
Northern Shrike (Lanius excubitor)	eBird	None			SCN	SGCN	
Steller's Jay (Cyanocitta stelleri)	eBird	None			SCN	SGCN	
Common Raven (Corvus corax kamtschaticus)	eBird		None		SCN	SGCN	
Bank Swallow (<i>Riparia riparia</i>)	eBird		None		SCN	SGCN	
Barn Swallow (Hirundo rustica)	eBird		None		SCN	SGCN	
Black-capped Chickadee (Poecile atricapillus)	eBird; Griswold	None			SCN	SGCN	
Chestnut-backed Chickadee (Poecile rufescens)	eBird	None			SCN	SGCN	
Boreal Chickadee (Poecile hudsonicus)	eBird		None		SCN	SGCN	
Brown Creeper (Certhia americana alascensis)	eBird	None			SCN	SGCN	
Golden-crowned Kinglet (Regulus satrapa)	eBird	None			SCN	SGCN	
Ruby-crowned Kinglet (Regulus calendula grinnelli)	eBird	None			SCN	SGCN	
Varied Thrush (Ixoreus naevius)	eBird	None			SCN	SGCN	
Bohemian Waxwing (Bombycilla garrulous)	eBird	None			SCN	SGCN	
American Pipit (Anthus rubescens)	eBird	None			SCN	SGCN	
Pine Grosbeak (Pinicola enucleator flammula)	eBird	None			SCN	SGCN	
White-winged Crossbill (Loxia leucoptera)	eBird	None			SCN	SGCN	
Common Redpoll (Acanthis flammea)	eBird	None			SCN	SGCN	
Pine Siskin (Spinus pinus)	eBird	None			SCN	SGCN	
Lapland Longspur (Calcarius lapponicus alascensis)	eBird	None			SCN	SGCN	
Smith's Longspur (Calcarius pictus)	Griswold	Region 4 Region 7 National		None			
Snow Bunting (Plectrophenax nivalis nivalis)	eBird	None		SCN	SGCN		
McKay's Bunting (Plectrophenax hyperboreus)	Griswold; ebird	None	Region 7	National	SCN	SGCN	
Orange-crowned Warbler (Oreothlypis celata)	eBird	None			SCN	SGCN	
Townsend's Warbler (Setophaga townsendi)	eBird	None			SCN	SGCN	
Wilson's Warbler (Cardellina pusilla pileolata)	eBird	None			SCN	SGCN	
American Tree Sparrow (Spizella arborea)	eBird	None			SCN	None	
Savannah Sparrow (Passerculus sandwichensis)	eBird	None			SCN	SGCN	
Fox Sparrow (Passerella iliaca)	USFWS IPaC; ebird	None			SCN	SGCN	
Song Sparrow (Melospiza melodia)	eBird; Griswold	None			SCN	SGCN	
Lincoln's Sparrow (Melospiza lincolnii)	eBird	None			SCN	SGCN	
White-crowned Sparrow (Zonotrichia leucophrys)	eBird	None			SCN	SGCN	
Dark-eyed Junco (Junco hyemalis oreganus)	eBird	None			SCN	SGCN	
Rusty Blackbird (Euphagus carolinus)	Griswold; ebird	Region 4	Region 7	National	SCN	SGCN	

²The Peregrine Falcon was delisted from the Endangered Species Act and Migratory Bird Treaty Act.

APPENDIX E WETLANDS

Seward Airport Improvements Project (Project No. Z548570000)

Wetlands Delineation and Field Check Update and Report

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2004 Wetlands Delineation

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DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, ALASKA
P.O. BOX 6898
ELMENDORF AFB, ALASKA 99506-0898
SFP 1 3 2006

Regulatory Branch POA-1989-672-9

Mr. Dan Golden Alaska Department of Transportation and Public Facilities P.O. Box 196900 Anchorage, Alaska 99519-6900

Dear Mr. Golden:

This is in response to your request that we review the preliminary wetlands delineation prepared for your proposed improvements to the Seward Airport. The wetlands delineation was conducted by ABR, Inc. during the summer of 2004 and is detailed in their "Preliminary Wetlands Assessment for Proposed Seward Airport Improvements Draft Report" dated August 2005. The airport is located within sections 34 and 35, T. 1 N., R. 1 W., Seward Meridian; latitude 60.1309° N., longitude 149.4193° W.; USGS Quad Seward A-7.

Based on our review of the Draft Report, we concur with your preliminary delineation and mapping of the wetlands that occur on the airport property. Therefore, Department of the Army (DA) authorization may be required if you propose to place dredged and/or fill material into waters of the U.S., including wetlands and/or perform work in navigable waters of the U.S.

Section 404 of the Clean Water Act requires that a DA permit be obtained for the placement or discharge of dredged and/or fill material into waters of the U.S., including wetlands (33 U.S.C. 1344). The Corps defines wetlands as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

Section 10 of the Rivers and Harbors Act of 1899 requires that a DA permit be obtained for structures or work in or affecting navigable waters of the U.S. (33 U.S.C. 403). Section 10 waters are those waters subject to the ebb and flow of the tide shoreward to the mean high water mark, and/or other waters identified by the Alaska District.

Please note that our concurrence applies only to the wetlands delineation portion of the Draft Report. At this time, we have made no determination as to the suitability of the functional assessment portion of the report.

Please be aware that land clearing operations involving vegetation removal in wetlands with mechanized equipment and other soil disturbances are considered placement of fill material under our jurisdiction.

Nothing in this letter excuses you from compliance with other Federal, State, or local statutes, ordinances, or regulations.

You may contact me at (907) 753-2712, toll free from within Alaska at (800) 478-2712, by email at don.p.kuhle@poa02.usace.army.mil, or by mail at the letterhead address, ATTN: CEPOA-CO-R-S, if you have any questions. Additional information about our Regulatory Program is available on our web site at www.poa.usace.army.mil/reg.

Sincerely,

Don P. Kuhle
Project Manager

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PRELIMINARY WETLANDS ASSESSMENT FOR PROPOSED SEWARD AIRPORT IMPROVEMENTS

ERIK R. PULLMAN AND WENDY DAVIS

PREPARED FOR **DOWL ENGINEERS** ANCHORAGE, ALASKA

PREPARED BY

ABR, INC. FAIRBANKS, ALASKA

AND

ABR, INC. ANCHORAGE, ALASKA

PRELIMINARY WETLANDS ASSESSMENT FOR PROPOSED SEWARD AIRPORT IMPROVEMENTS

Draft Report

Prepared for:

Dowl Engineers 4040 B Street Anchorage, Alaska 99503

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Anchorage, Alaska 99524

August 2005

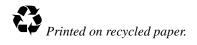


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INTRODUCTION

A wetlands delineation and functional assessment for the Seward Airport was requested in support of airport expansion needs. A full survey of the area was completed in 1995 by Shannon & Wilson and ABR, Inc. (Shannon & Wilson 1996). ABR, Inc. was requested by DOWL Engineers to assess the adequacy of existing information and make revisions accordingly. During the 10 years since the previous survey significant changes have been made to the landscape, including urban development and clearing, riparian changes due to at least two floods on the Resurrection River, and tidal changes. A new field survey was conducted and the area was remapped using new photography.

STUDY AREA

The study area consists of the existing runway and areas immediately surrounding the runway, a proposed taxiway, tie-down area, and access road. The Seward Airport is bounded on the east side by Resurrection River, on the north and west by the town of Seward Alaska, on the south by Resurrection Bay.

The Seward Airport is located in south-central Alaska on Resurrection Bay at the western end of Prince William Sound. The climate is considered maritime with high annual precipitation, cool summers, and mild winters. Summer temperatures range from 44°F to 63°F and winter temperatures range from 18°F to 46°F. Mean tidal range is 8.3 feet (Shannon & Wilson 1996). The plant communities in the area include well-developed coastal needleleaf forests, riverine mixed forests, lowland marshes, salt and mud flats, and various shrub communities.

METHODS

WETLANDS MAPPING

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Wetland types were classified and mapped using true-color aerial photography flown in September 2004 at a nominal scale of 1:1200. The entire study area was remapped in 2005 with the 1995 mapping layer used as background reference.

Wetlands were delineated based on color photo-signature, plant canopy, terrain breaks, and hydrological indicators, such as drainage patterns and surface water connections. Boundaries were mapped digitally on-screen with *ArcGIS* software, using imagery described above. For each

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map polygon a National Wetlands Inventory (NWI) wetland type was determined. Wetland coding followed Cowardin et al. (1979).

Boundary delineation was performed at a scale of 1:2000. Minimum mapping areas were approximately 500 m² (0.1 acres) for waterbodies and aquatic habitats with emergent vegetation, and 1000 m² (0.2 acres) for other habitats. The map projection used in all mapping and GIS analyses was Alaska State Plane, zone 4, NAD83 (feet).

FIELD SURVEY

Since the field survey conducted by ABR in 1995 significant changes to the landscape have occurred due to land management activities, at least two major floods on the Resurrection River (1995, 1997), and tidal changes. Sections of the project area were resurveyed for wetlands in October 2004. Wetland determinations were completed at 10 sites and vegetation verification was done at 1 site.

Wetland determinations were made using the three-parameter approach described in the *Corps of Engineers Wetlands Delineation Manual* (USACE 1987). Digital photographs also were taken of each site and of soils where applicable (Appendix A). At each determination site, a U.S. Army Corp of Engineers (USACE) routine wetland determination data sheet was completed to document vegetation, soils, and hydrology (Appendix B).

At each of the 10 wetland determination sites, we recorded dominant plant species for each vegetation layer (tree, shrub, or herbaceous) and visually estimated percent live cover for each dominant species. The wetland status of the vegetation at each field site was determined by visually estimating the percent live cover and determining the wetland indicator status of dominant plants. Wetland indicator status of a plant was determined by referring to the *National List of Plant Species that Occur in Wetlands: Alaska (Region A)* (Reed 1988). Taxonomic nomenclature for most plant species followed *Flora of Alaska and Neighboring Territories* (Hultén 1968). For willows, we used *Alaska Trees and Shrubs* (Viereck and Little 1972).

At each wetland determination site, a soil pit at least 18 inches deep was dug to examine soils for hydric soil indicators. Hydric soils typically have low matrix chroma (gley features), mottles (redoximorphic features), or thick organic deposits (histosols). The soil profile was described and key characteristics including color and presence of mottles or oxidized root channels were

recorded. Soil colors were determined using *Munsell Soil Color Charts* (2000), following standard guidelines for wetland determinations (USACE 1987).

Wetland hydrologic indicators also were assessed at each site, including the presence of standing water, soil saturation within 12 inches of the surface, and/or evidence suggesting episodes of past inundation such as watermarks, drift lines, or surficial water-borne sediment deposits on vegetation.

At the vegetation verification site (Appendix B), we visually estimated percent live cover of dominant and associated plant species and assigned a wetland/upland class and a Level IV vegetation class (Viereck et. al. 1992) to the stand. Vegetation verification plots provide additional field data to assist in the wildlife habitat classifications and the photointerpretation of wetlands and vegetation types. At all field survey sites, any evidence of wildlife use (browsed vegetation, scat piles, trails and dens etc.) also was noted.

WETLAND FUNCTIONAL ASSESMENT

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The functional importance of wetlands in the study area was evaluated using criteria outlined in the *Literature Review and Evaluation Rationale* of the Wetland Evaluation Technique (Adamus et al. 1991). The field data were recorded on forms adapted from the *Rapid Procedure for Assessing Wetland Functional Capacity* (Magee 1998). This procedure is based on the Hydrogeomorphic (HGM) Classification System (Brinson 1993), but provides a template that allows for a more rapid assessment of the many functions that wetlands (depending on type) can perform. HGM models have not been developed for all of the wetlands found in study area, so we used this modified approach so that all wetlands would be evaluated using the same method. The relative importance of 10 processes or attributes, encompassing hydrological, water quality, ecological, and social functions of wetlands in the project area were qualitatively ranked into categories of low, medium, and high importance. Many of these attributes are not exclusive to wetlands in the area.

Most wetland functional assessment rankings were based on landscape position, wetland size, relative abundance, and current knowledge of the study area. Additional information used in the evaluation included local topography, signs of animal use, and plant community structure. To simplify the number of wetland types evaluated, wetlands that are similar in function and vegetation structure were grouped into broader categories.

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HYDROLOGY

Hydrology functions were determined from the topographic relation of the wetland surface to the local water table. For basins, the presence of an inlet or outlet (or both) was determined from aerial photography. Three specific processes were considered.

Ground water discharge—Movement (vertical or lateral) of water from the subsurface to the surface.

Ground water recharge—Downward movement of water from a wetland into the subsurface.

Erosion control and flow regulation—Various mechanisms that slow or impede the movement of water downslope and thus reduce its erosive force and moderate local stream flows.

WATER QUALITY

Water quality functions are wetland processes that can remove sediments, nutrients, and anthropogenic contaminants from the water while contributing important material to the invertebrate food web. Three general processes are considered.

Sediment/toxicant retention—A combination of physical and biological processes that result in the reduction of suspended sediment of water moving across or through a wetland.

Nutrient retention—Biological processes that result in the incorporation of dissolved nutrients (mainly N and P) into plant tissue and organic sediments. Also includes the process of denitrification in wetland soils.

Production export—The movement of relatively large amounts of organic material derived from primary production to adjacent areas. This process can include a wide range of secondary production exports such as insect emergence.

ECOLOGY

Ecological values are based on the relative ability of a wetland to support animal populations and provide local habitat diversity. Three general characteristics of a wetland are considered.

Aquatic habitat—The potential of a wetland to support a viable fish or invertebrate population.

Wildlife habitat—The potential of a wetland to support wetland-dependent birds; other locally abundant animals such as moose will be considered.

Regional ecological diversity—An index to how much a given wetland contributes to the overall landscape diversity of the watershed within which it is located. Wetland types that are regionally rare receive higher scores.

SOCIAL

Social values considered for this analysis include subsistence and recreational uses. These values include the importance of a wetland for hunting and gathering activities (e.g., fishing, waterfowl and mammal hunting, berry picking, and firewood and edible plant gathering), and transportation (boating or winter travel).

RESULTS AND DISCUSSION

WETLANDS

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A total of 21 NWI wetland types were identified within the Seward Airport study area. To summarize and discuss the results, these 21 types were aggregated into 12 wetland habitats that shared similar vegetation and wetland functions (Table 1, Figure 1). The 338.7 acre study area is composed of 69.3% wetlands. The most common wetland habitat is Lowland Sedge-Shrub/Land Management Areas (107.6 acres, 31.8%), followed by Coastal Barrens (37.5 acres, 11.1%) and Salt Marsh (28.5 acres, 8.4%). Aside from the Resurrection River (R2UBH) which accounts for 6.3% of the study area, other habitats account for less than 5% each of the total mapped area.

Lowland Sedge-Shrub/Land Management Areas are cleared areas where the former undisturbed habitat has been cleared or filled for the airport. This habitat class is composed of two shrubby NWI wetland types (PSS1/EM1B, PEM1/SS1B) and one emergent vegetation class (PEM1B). Common emergent vegetation consists of invasive graminoid species such as bluejoint (*Calamagrostis canadensis*), polar grass (*Arctagrostis latifolia*), tufted hair grass (*Deschampsia caespitosa*) and glaucous bluegrass (*Poa glauca*). Shrubs are of low height because of repeated cutting and include American green alder (*Alnus crispa*), pacific red elder (*Sambucus racemosa*) and diamond-leaf willow (*Salix pulchra*). Coastal Barrens include sand or gravel beaches (E2US2N), mud tidal flats (E2US3N), subtidal flooded ponds (E1UBL), and salt-killed meadows bordering tidal streams (R1SB7R). These types generally consist of unconsolidated mud, silts, sands, or gravels or occasionally salt-killed emergent vegetation. Salt Marshes occur adjacent to the mud tidal flats, they support emergent vegetation and the hydrologic regime is either regularly

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or irregularly flooded (E2EM1N, E2EM1P, respectively) due to tides. No Salt Marsh areas were sampled for dominant vegetation in the 2004 survey but Shannon & Wilson (1996) lists Lyngby's sedge (*Carex lyngbyei*), several flowered sedge (*C. plurifora*) and sea arrow-grass (*Triglochin maritimum*) as dominants in those wetland types. The remainder of the 12 aggregated habitats include 4 unvegetated types (Rivers, Streams, Ponds, and Riverbars) and 5 undisturbed types (Riverine Broadleaf Forest, Riverine Tall Scrub, Tall Shrub Riverbar, Lowland Sedge Meadow, and Lowland Tall Scrub) (Table 1).

Uplands within the study area were divided into Uplands and Pavement/Fill. The Uplands were un-cleared areas of mixed or needleleaf forest where the dominant tree and shrub species are Sitka spruce (*Picea sitchensis*), black cottonwood (*Populus trichocarpa*) and American green alder (*Alnus crispa*). Pavement/Fill uplands are all airport-related developments.

Soils throughout the area have little or no organic matter accumulation at the surface and consist mainly of riverine and marine silts, sands, and gravels. At the time of the 2004 field survey the area had received large amounts of precipitation, which affected the hydrology observations in many cases. Many of the soils pits were either inundated or saturated above 12 inches and they may not display these characteristics throughout the growing season.

WETLAND FUNCTIONAL ASSESSMENT

Wetland habitats within the Seward Airport study area can be split into three major systems, riverine, lowland, and coastal. Most wetland habitats within these systems are commonly found throughout Alaska. However, on a local scale, the Resurrection River system (riverine habitat types) was rated as moderately important ecological diversity because Seward is located in a rugged mountainous area with relatively few well-developed floodplain systems. Although this area is not within a permafrost zone, the cooler climate limits the groundwater recharge and discharge functions except in the riverine system. Riverine wetland habitats were rated high for groundwater discharge due to permeable soils, high flood frequency, and wetland system (riverine). Discharge ratings are low for all wetland habitats in the study area. Functional ratings for erosion control/flow regulation and sediment/toxicant retention are rated as moderate to high in the some of the riverine and lowland wetland habitats. Vegetated types, Riverine Tall Scrub, Riverine Broadleaf Forest, and Riverine Needleleaf Forest, were rated high for erosion control because taller, shrubby or forested types have greater capacity to absorb flood waters and increase

Seward Airport Wetlands Assessment 6 DRAFT

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frictional drag. Lowland depression types, such as Ponds and Lowland Sedge Meadow, were rated moderate because they may serve as containment for some flood waters. Moderate values for erosion control were assigned to the forested and shrubby riverine types because of their potential to increase drag and to anchor shorelines. All habitat types within the study area were rated low in the areas of nutrient retention and production export because no highly productive systems occur upstream from the study area (Table 2).

Rivers, Streams, and Coastal Barrens are considered moderate to high value for the aquatic habitat function. The Resurrection River is known to have rearing and spawning habitat for coho and sockeye salmon (*Onchorynchus kisutch* and *O. nerka*). Chum and pink salmon (*O. keta* and *O. gorbuscha*) use two small streams within the airport property (Shannon & Wilson 1996). Because Coastal Barrens encompasses some marine aquatic wetland types it is rated as moderate for anadromous fish habitat. Coastal Barrens and Salt Marsh receive a high wildlife habitat value because of use by shorebirds, waterfowl, and bald eagles (*Haliaeetus leucocephalus*). Moose (*Alces alces*) also use the coastal and lowland areas within the study area. Subsistence and recreation are rated high for the River wetland habitat because of use by boaters and fishermen. Other wetland habitats in the study area receive low functional values due to the proximity to the airport (Table 2).

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Table 1. Acreages and percentages of National Wetland Inventory classes and aggregate wetland habitat types in the Seward Airport proposed development area, Alaska, 2004.

NWI Codes ^a	Wetland Habitat	Acres	% of Study Area
PUBH	Pond	2.7	0.8
R2UBH	River	21.2	6.3
R2UB3H	Stream	0.5	0.2
R2US5A, R2USA	Riverbar	14.3	4.2
PFO1/SS1A	Riverine Broadleaf Forest	11.8	3.5
PSS1/EM1A, PEM1/SS1A, PSS1A	Tall Shrub Riverbar	5.7	1.7
PSS1C	Riverine Tall Scrub	3.0	0.9
E2US2N, E2US3N, R1SB7R, E1UBL	Coastal Barrens	37.5	11.1
E2EM1N, E2EM1P	Salt Marsh	28.5	8.4
PEM1H	Lowland Sedge Meadow	1.5	0.4
PSS1B	Lowland Tall Scrub	0.5	0.1
PEM1/SS1B, PEM1B, PSS1/EM1B	Lowland Sedge-Shrub/Land Management Areas	107.6	31.8
Total Wetlands		234.8	69.3
U	Uplands	27.7	8.2
U (URBAN)	Pavement/Fill	76.2	22.5
Total		338.7	100.0

^a NWI = National Wetland Inventory.

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Table 2. Ranking of functions and values of wetland types in the Seward airport proposed development area, Alaska, 2004.

U				-	1			-				
						Wetland l	Habitat Type					
	Pond	River	Stream	Riverbar	Riverine Broadleaf Forest	Tall Shrub Riverbar	Riverine Tall Scrub	Coastal Barrens	Salt Marsh	Lowland Sedge Meadow	Lowland Tall Scrub	Lowland Sedge- Shrub/Land Management Areas
						Wetla	and Type					
	PUBH	R2UBH	R2UB3H	R2US5A, R2USA	PFO1/SS1A	PEM1/SS1A, PSS1/EM1A, PSS1A	PSS1C	E1UBL, E2US2N, E2US3N, R1SB7R	E2EM1N, E2EM1P	PEM1H	PSS1B	PEM1/SS1B, PSS1/EM1B, PEM1B,
Functions and Values												
Groundwater Discharge	Low	High	High	High	High	High	High	Low	Low	Low	Low	Low
Groundwater Recharge	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low
Erosion Control/Flow Regulation	Moderate	Low	Low	Low	High	High	High	Low	Low	Moderate	Low	Low
Sediment/Toxicant Retention	Low	Low	Low	Moderate	Moderate	Moderate	Moderate	Low	Low	Low	Low	Low
Nutrient Retention	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low
Production Export	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low
Aquatic Habitat	Low	High	High	Low	Low	Low	Low	Moderate	Low	Low	Low	Low
Wildlife Habitat	Low	Low	Low	High	High	Low	Low	High	High	Moderate	Moderate	Low
Regional Ecological Diversity	Low	Moderate	Low	Moderate	Moderate	Moderate	Low	Low	Low	Low	Low	Low
Subsistence/Recreation Use	Low	High	Moderate	Low	Low	Low	Low	Low	Low	Low	Low	Low

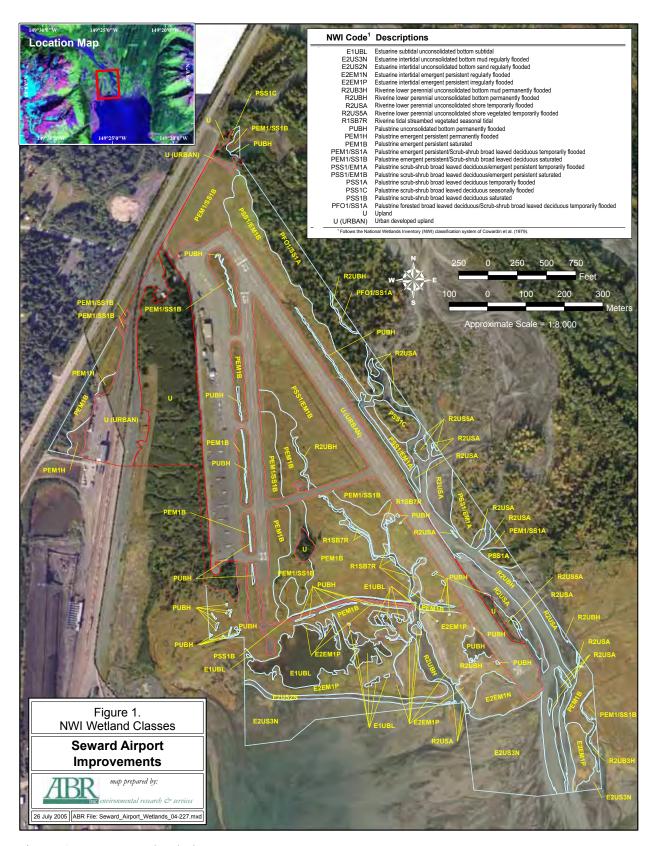


Figure 1. NWI wetland classes.

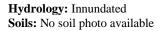
APPENDIX A: PHOTOGRAPH	IC LOG OF FIEL	D SURVEY SITES.

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SW01: Lowland Sedge Meadow **NWI Class:** PEM1H





SW02: Lowland Sedge Shrub/Land Management NWI Class: PEM1B

Hydrology: Saturated **Soils:** No soil photo available



SW03:Open Broadleaf Forest NWI Class: Upland



Hydrology: Saturated Soils: Silt and gravel



SW04: Open Needleleaf Forest NWI Class: Upland



Hydrology: Saturated Soils: Silt and Sand.



SW05: Lowland Sedge Shrub/Land Management NWI Class: PEM1B



Hydrology: Saturated Soils: Silt loam.



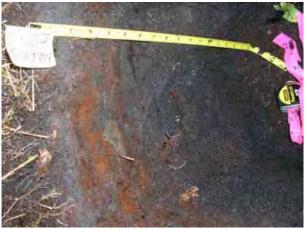
SW06: Lowland Sedge Shrub/Land Management NWI Class: PEM1/SS1B



Hydrology: Saturated Soils: Gravelly sandy loam



SW07: Open Needleleaf Forest NWI Class: Upland



Hydrology: Saturated Soils: Silt and Sand



SW08: Tall Closed Alder Shrub NWI Class: Upland



Hydrology: Saturated Soils: Unconsolidated Sand



SW09: Lowland Sedge Shrub/Land Managment NWI Class: PSS1/EM1B



Hydrology: Saturated Soils: Silt with gravel



SW10: Lowland Sedge Shrub/Land Management NWI Class: PEM1/SS1B



Hydrology: Saturated **Soils**: Loam with 20% rocks



SV01: Subarctic Lowland Bog NWI Class: PEM1/SS1H

Hydrology: Innundated **Soils:** No soil photo available

APPENDIX B: WETLAND DE	TERMINATION AND VEG FIELD DATA FORMS.	ETATION VERIFICATION

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SWØ

DATA FORM ROUTINE WETLAND DETERMINATION (Adapted from 1987 COE Wetlands Delineation Manual form)

Project/Site: Swe Seward Airpo Applicant/Owner: ADOT	Date: 5 OCT 04 County:				
Investigator: ABR, Inc. CBH	State: AK				
Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation Is the area a potential Problem Area? (If needed, explain on reverse.)	Yes No NWI Class: PEM H Photo No: Vork 10: 24 Plot ID: SWO				
VEGETATION					
Dominant Plant Species (%Cover) Stratum Indicator 1.	Associated Plant Species Stratum Indicator				
Percent of dominant Species that OBL, FACW or FAC (excluding FAC). /007					
HYDROLOGY					
Recorded Data (Describe in Remarks):	Wetland Hydrology Indicators:				
Stream, Lake , or Tide GaugeAerial PhotographsOtherNo Recorded Data Available	Primary Indicators: InundatedSaturated in Upper 12 inchesWater MarksDrift Lines				
Field Observations:	Sediment Deposits				
Depth of Surface Water: 12-30 (in)	Drainage Patterns in Wetlands Secondary Indicators (2 or more required):				
Depth of Free Water in Pit: Depth to Saturated Soil/Permatreet: (in)	Oxidized Root Channels in Upper 12 inches Water-Stained Leaves				
Depth to seasonal frost unknown (in)	Local Soil survey data FAC Neutral Test Other (Explain in Remarks)				
Remarks:					
60-12996 W65 84	No soil pix required.				

Seward Airport Wetlands Assessment

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DATA FORM ROUTINE WETLAND DETERMINATION (Adapted from 1987 COE Wetlands Delineation Manual form)

Project/Site: Soward Arport Applicant/Owner: ADOT Investigator: ABR, Inc. C&H	Date: 500164 County: State: AK		
Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation)? Is the area a potential Problem Area? (If needed, explain on reverse.)	Yes Yes Yes	No No	NWI Class: PEM\B\B Photo No: York 10:37 Plot ID: SWOOD

GE7		

Dominant Plant Species (%Cover) Stratum Indicator	Associated Plant Species 09 ANG-LUC 4 10 E OUFLU 5 11 E OUDEN 5 12 13 14 15 16	Stratum Indicator ## ## ## ## ## ## ## ## ## ## ## ## #
Level IV Veg Class: Hambh		

HYDROLOGY

Recorded Data (Describe in Remarks): Stream, Lake, or Tide Gauge Aerial Photographs Other	Wetland Hydrology Indicators: Primary Indicators: Inundated Saturated in Upper 12 inches Water Marks
No Recorded Data Available Field Observations: Depth of Surface Water:	Drift LinesSediment DepositsDrainage Patterns in Wetlands Secondary Indicators (2 or more required):Oxidized Root Channels in Upper 12 inchesWater-Stained LeavesLocal Soil survey dataFAC Neutral TestOther (Explain in Remarks)
Remarks: Standing water may be partially d lact of transpiration. Area is developed raily and.	ne to recent heavy rains and low-hying between road and

60.13/08 WGS 84

SWØ3

DATA FORM ROUTINE WETLAND DETERMINATION (Adapted from 1987 COE Wetlands Delineation Manual form)

(Adapted from 1987 COE Wetlands Delineation Manual form)				
	Date: 5 OCT BY County: State: AK			
Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation) Is the area a potential Problem Area? (If needed, explain on reverse.)	Yes No NWI Class: 4 Photo No: York 11 44 Plot ID: SW 2			
VEGETATION				
Dominant Plant Species (%Cover) Stratum Indicator 1 PTCSIT /S T FACUL 2 POPTET /O T FACUL 3 - ALNCEI 20 S FACUL 4 SCHHOR /5 S FACUL 5	Associated Plant Species O9. ARCUSVL - H 10. ANGURA H 11. ANGURC - 1 H 12. SAMRAC 2 S 13. SAMRAC 3 S 14. POPPE H 15. VIREDU 10 16. CALCAN 5 EFTANG 6			
Level IV Veg Class: Fmosb	TOTAL T 35 4 27			
HYDROLOGY				
Recorded Data (Describe in Remarks):Stream, Lake, or Tide GaugeAerial PhotographsOther	Wetland Hydrology Indicators: Primary Indicators: Inundated Saturated in Upper 12 inches			
No Recorded Data Available	Water Marks Drift Lines			
Pield Observations: Depth of Surface Water: Move (in) Depth of Free Water in Pit: /0.5 (in) Depth to Saturated Soil/Permafrost: (in)	Sediment DepositsDrainage Patterns in Wetlands Secondary Indicators (2 or more required):Oxidized Root Channels in Upper 12 inchesWater-Stained LeavesLocal Soil survey data			
Depth to seasonal frost $\frac{>/4}{}$ (in)	Local Soil survey dataFAC Neutral Test Other (Explain in Remarks)			

Seward Airport W	tlands Assessment
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Remarks:
Lecens heavy rains offecting hydrology indicators.

SOILS						
Map Unit Name (Series and Phase):			Drainage Clas	ss:		
Taxonomy (Subgroup):				Confirm mapped Group? Yes No		
Profile Description: Depth (in) Horizon	Matrix Color (Munsoil Moist)	Mottle Colors (Munsoil Mo		Texture, Concretions Structure, etc.		
05 <u>6i</u> .5-4 <u></u>	2543/1 2549/2	10483/1	C/F	veryanelysi		
8-13 (2	Na	n/a		gravels		
Hydric Soil Indicators						
Reduci Gleyed	Moisture Regime ing Conditions for Low-Chroma Co ttles, ≤1 without mo	ttles)	Organic Streaking in Sandy Listed on Local Hydric Soil Listed on National Hydric S Other (Explain in Remarks)	ls List Soils List)		
WETLAND DETE Hydrophytic Vegetatio Wetland Hydrology Pr Hydric Soils Present?	n Present? Yes	(No No No	Is this Sampling Point within	a Wetland? Yes No.		
Remarks:						
GEOGRAPHIC IN	IFORMATION					
GPS Location: 60 Air Photo ID:		9.42358	ωυς 8 (circle one Location is apporti	y) NAD83 NAD27 mate but still in		
Cow mose	of 2 calves	made	appearance, quite c	close.		

					41 -			Sh	04
SOILS									
Map Unit Name (Series and Phase):	•		•	·		nage Class i Observat			
Taxonomy (Subgroup):					Con	firm mapp	ed Group?	Yes	No
Profile Description:	Matrix Co		Mottle Colors		Mottle		Texture, C		ons
Depth (in) Horizon	(Munsoil l	Moist)	(Munsoil Mo	ist)	Abundance/	Contrast	Structure,	etc.	
0-3 3-14 19-18 C	543/1 542.5		1041241	<u>\}</u>	C/D		Si with	Sain	- Lusing
									
				 .					
Hydric Soil Indicators Histose History	ol Epipedon		· .		cretions Organic Con	itent in Sur	face Layer i	n Sandy	soils
Reduci	Moisture Re ng Conditio or Low-Ch	ons Iroma Col		Liste Liste	nic Streaking d on Local H d on National r (Explain in	ydric Soils I Hydric So	List	•	
Remarks:						-			
WETLAND DETE	RMINAT	ION							
Hydrophytic Vegetation Wetland Hydrology Pre Hydric Soils Present?	Present?	Yes Yes Yes	No No No	Is this	Sampling Po	int within	a Wetland?	Yes	(X)
Remarks:									
·									
							•		
GEOGRAPHIC IN	FORMA'	TION							
GPS Location: 60.			1.42218		(いらる g circle one)	NAD83	NAD27	
Air Photo ID:	<u> </u>						· <u>-</u>		
<u> </u>			-						

DATA FORM ROUTINE WETLAND DETERMINATION (Adapted from 1987 COE Wetlands Delineation Manual form)

Project/Site: Seward Airport Applicant/Owner: ADOT Investigator: ABR, Inc. CBH	Date: 5 OCT 04
Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation) Is the area a potential Problem Area? (If needed, explain on reverse.)	Yes No NWI Class:
VEGETATION Dominant Plant Species (%Cover) 1. DT CSTT	Associated Plant Species Stratum Indicator 09
Percent of dominant Species that OBL, FACW or FAC (excluding FAC).	TOTAL T 40 S 40 (H 5)
HYDROLOGY	(A) Although
Recorded Data (Describe in Remarks): Stream, Lake, or Tide GaugeAerial PhotographsOtherNo Recorded Data Available Field Observations: Depth of Surface Water: Depth of Free Water in Pit: Depth to Saturated Soil/Permafrost: (in)	Wetland Hydrology Indicators: Primary Indicators: Inundated Saturated in Upper 12 inches Water Marks Drift Lines Sediment Deposits Drainage Patterns in Wetlands Secondary Indicators (2 or more required): Oxidized Root Channels in Upper 12 inches Water-Stained Leaves Local Soil survey data FAC Neutral Test
Depth to seasonal frost > 18 (in) Remarks:	

SW05

DATA FORM ROUTINE WETLAND DETERMINATION (Adapted from 1987 COE Wetlands Delineation Manual form)

Project/Site: Seward Arrport Applicant/Owner: ADOT Investigator: ABR, Inc. ASH Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation) Is the area a potential Problem Area? (If needed, explain on reverse.)	? Yes No Yes No	Date: SOCT 04 County: State: AK NWI Class: FEM 1B Photo No: York 13.28, 13.29 Plot ID: SWØ5
VEGETATION		
Dominant Plant Species (%Cover) 1. CALCAN 2. H 3. CARLEN IS H 6. 7. 8. Percent of dominant Species that OBL, FACW or FAC (excluding FAC). 2/2 = 100 (507) Level IV Veg Class: H g M S Q Few small parches of ALNCRI	Associated Plant Species 09. ACHMT (- 10. RUMAR (C = 11. ARCLAT (Q) 12. E (QUPRA (Q) 13. 14. 15. 16.	
HYDROLOGY		
Recorded Data (Describe in Remarks): Stream, Lake, or Tide GaugeAerial PhotographsOtherNo Recorded Data Available Field Observations: Depth of Surface Water: Depth of Free Water in Pit: Depth to Saturated Soil/Permafrost: Surface (in) Depth to seasonal frost Depth to seasonal frost	Secondary Indicators	osits erns in Wetlands (2 or more required): t Channels in Upper 12 inches I Leaves vey data Fest
Remarks:	·	

SWas.

Map Unit Name (Series and Phase):	•		•	•		Orainage Cla	ss:		<u> </u>
Taxonomy (Subgroup):	<u></u>						ped Group?	Yes	No
Depth (in) Horizon	Matrix Col (Munsoil N		Mottle Color (Munsoil Mo		Mottle Abundan	ce/Contrast	Texture, C Structure,		ons
0-1 01 1-18 C	2.543/1		10YR3/2		C/1	>	s,· L		
									
Hydric Soil Indicators Histosol Histic E Sulfidic	pipedon Odor			High Orga	ınic Streak	Content in Si ing in Sandy I Hydric Soi		n Sandy	soils
*(Chroma ≤ 2 with mottl Remarks: WETLAND DETER	MINAT	roma Co	tles)	ListsOthe	ed on Nation (Explain	onal Hydric in Remarks	Soils List	(es)	No
*(Chroma ≤ 2 with mottl	g Condition or Low-Chr les, ≤1 with RMINAT Present?	ns roma Co nout mot	•	ListsOthe	ed on Nation (Explain	onal Hydric in Remarks	Soils List	(Ĉŝ)	No
*(Chroma ≤ 2 with mottl Remarks: WETLAND DETER Hydrophytic Vegetation Wetland Hydrology Pres	g Condition or Low-Chr les, ≤1 with RMINAT Present?	roma Co	No No	ListsOthe	ed on Nation (Explain	onal Hydric in Remarks	Soils List	(es)	No
*(Chroma ≤ 2 with mottl Remarks: WETLAND DETER Hydrophytic Vegetation Wetland Hydrology Pres Hydric Soils Present?	g Condition or Low-Chr les, ≤1 with RMINAT Present?	roma Co	No No	ListsOthe	ed on Nation (Explain	onal Hydric in Remarks	Soils List	(es)	No
*(Chroma ≤ 2 with mottl Remarks: WETLAND DETER Hydrophytic Vegetation Wetland Hydrology Pres Hydric Soils Present?	g Condition or Low-Chrises, ≤1 with RMINAT. Present?	ns roma Co nout mot	No No	ListsOthe	ed on Nation (Explain	onal Hydric in Remarks	Soils List	(es)	No

DATA FORM ROUTINE WETLAND DETERMINATION (Adapted from 1987 COE Wetlands Delineation Manual form)

SW106

Project/Site: Seward Arpot Applicant/Owner: Applicant/Own	Yes No Yes No Yes No	Date: SOCT QY County: State: AK NWI Class: PEMI SSIB Photo No: York 3:57 (Plot ID: SWOG	3 photz
VEGETATION			
Dominant Plant Species (%Cover) 1. CALCAN 2. APPCLAT 32 ANGLUC 17 4. ACCET 5. S. FAC 5. SAMPAC 8. Percent of dominant Species that OBL, FACW or FAC (excluding FAC). 3/5 = 609, (20%)	Associated Plant Species 09 EMM ARC 10 ARTTL 11. PLA 12. LEU 13. ACHMTL 14. EPLANG 15. 16. /	TOTAL 445	
Level IV Veg Class: Hamah		SANCE Sides lopes Wer meadow	
plontego HYDROLOGY		Minway	테 <u>-</u> 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1
Recorded Data (Describe in Remarks): Stream, Lake, or Tide Gauge Aerial Photographs Other No Recorded Data Available Field Observations: Depth of Surface Water:		opper 12 inches osits erns in Wetlands	13 se
Depth of Free Water in Pit: Depth to Saturated Soil/Permafrost: Depth to seasonal frost Volume (in)	Water-Stained Local Soil sur FAC Neutral	t Channels in Upper 12 inches I Leaves vey data	
Remarks: + may be almormally shallow due to	o recent beauty rou	ns	

SWØ6

SOILS				•		
Map Unit Name	•			D		
(Series and Phase):				Drainage Cla Field Observ		
			•			Vac Na
Taxonomy (Subgroup):			Confirm map	pea Group?	Yes No
			<u> </u>		<u>,</u>	
D C1 D						
Profile Description:		M-M- Cala	rs Mottle	_	Texture, Co	norationa
	Matrix Color	Mottle Colo				
Depth (in) Horizon	(Munsoil Moist			dance/Contrast	Structure, e	<u>lC.</u>
09	5/2.5/1	104R3/		10	<u>Sal</u>	
9-18			<u> M</u>	10	gravellys	al_
						A profession and the
		·				
						
						
•		_				
				•		
Hydric Soil Indicators				•	· · · · · · · · · · · · · · · · · · ·	n a Sagar
2			• •		La Virginia de la Caractería de la Carac	
Histor	sol	<u> </u>	Concretions			
Histic	Epipedon				urface Layer in	Sandy soils
	lic Odor	<u> </u>		eaking in Sandy		
	: Moisture Regime		Listed on Lo	ocal Hydric Soi	ls List	
Reduc	ing Conditions			ational Hydric		
Gleye	d or Low-Chroma	Colors*	Other (Expl	ain in Remarks)	
•						
*(Chroma ≤ 2 with mo	ottles, ≤ 1 without n	nottles)	· · · · · · · · · · · · · · · · · · ·			
Remarks:						-
	•		*	•		
			•			
· · · · · · · · · · · · · · · · · · ·						
WETLAND DETI	RMINATION					
Hydrophytic Vegetation	on Present? (Fes	No	Is this Sampli	ing Point within	a Wetland?	Yes No
Wetland Hydrology P		\ No	To same oumpn			
Hydric Soils Present?	resent! (Tes	No No		-		•
riyuric aona riesent?	1.69				<u> </u>	
Remarks:						
T Pritting was						•
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					,	
				÷ je je		
				* je v		
					•	
		n. and a second sec				
GEOGRAPHIC IN		I				
GEOGRAPHIC II	NFORMATION				1084	
					N65 84	AD27
GEOGRAPHIC IN GPS Location: 60.						AD27
GPS Location: _60.						AD27
						AD27
GPS Location: 60.						AD27

DATA FORM ROUTINE WETLAND DETERMINATION (Adapted from 1987 COE Wetlands Delineation Manual form)

Project/Site: Seward Airport Applicant/Owner: ADDT Investigator: ABR, Inc. (6H)		Date: <u>5 0 G 84</u> County: State: <u>AK</u>
Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation) Is the area a potential Problem Area? (If needed, explain on reverse.)	Yes No Yes No Yes No	NWI Class: 14 Photo No: York 14:33/4:34 Plot ID: SWO7
VEGETATION		
Dominant Plant Species (%Cover) Stratum Indicator 1.PTC.S.F.T. 70 2. ACN/CRI 10 3	Associated Plant Species 09. ACH ALT? - < 1 10. CAMORY 1 11. TETSET TY 12. CALCAN S 13.	
(excluding FAC). 1/4 = 25% (B)		
Level IV Veg Class: FnCSS		+DTAL T 70 3 10 4 26
HYDROLOGY		
Recorded Data (Describe in Remarks): Stream, Lake, or Tide GaugeAerial PhotographsOtherNo Recorded Data Available Field Observations: Depth of Surface Water: Depth of Free Water in Pit: Depth to Saturated Soil/Permafrost: More (in)	Wetland Hydrology Indicators:	oper 12 inches) osits rns in Wetlands 2 or more required): Channels in Upper 12 inches Leaves ey data est
Remarks: Recent heavy rains; Not sure would	normally be sate	wated in upper/2.

SW07

Map Unit Name (Series and Phase): Taxonomy (Subgroup):				Drainage Clas Field Observa Confirm mapp	tions	Yes	No
Profile Description: Depth (in) Horizon 0-2 Oi 2-6 6-19	Matrix Color (Munsoil Moist) 1018211 Wa - Sand	Mottle Colors (Munsoil Mois 5483/4	-	nce/Contrast	SiL and seasoble	etc. Sal, di ck sand	sting, n
Hydric Soil Indicators Histosol Histic E Sulfidic	pipedon Odor		Concretions High Organic Organic Streal		Soils	ı Sandy s	oils
Reducin Gleyed *(Chroma ≤ 2 with mott	•	tles)	Listed on Nati Other (Explain	onal Hydric S n in Remarks)	oils List	polit Ev	en .
Reducin Gleyed *(Chroma ≤ 2 with mott	g Conditions or Low-Chroma Co les, ≤1 without mot led, large rig Marginal	tles)	Listed on Nati Other (Explain	onal Hydric S n in Remarks)	oils List	out ev	en cum
*(Chroma ≤ 2 with mottle Remarks: 2-6 Howlen mix Proportions. WETLAND DETER Hydrophytic Vegetation Wetland Hydrology Pres	g Conditions or Low-Chroma Co les, ≤1 without mot led, large ma marging MMINATION Present? Yes	tiles) har another ar - only 4	Listed on Nati Other (Explain	onal Hydric Sin Remarks) Telf Sillar	oils List od Sal, al	requir	EMAN (No)
*(Chroma ≤ 2 with mottle Remarks: 2-6 Howzon mix Proportions. WETLAND DETER	g Conditions or Low-Chroma Co les, ≤1 without mot red, large rig Marginal EMINATION Present? Yes cent? Yes cent?	tiles) hr morks ar only 4	Listed on Nati Other (Explain eas Pocker (h.Ches)	onal Hydric Sin Remarks) Telf Sillar	oils List od Sal, al		
*(Chroma ≤ 2 with mottle Remarks: 2-6 Howlen mix Proportions. WETLAND DETER Hydrophytic Vegetation Wetland Hydrology Present?	g Conditions or Low-Chroma Co les, ≤1 without mot red, large rig Marginal EMINATION Present? Yes cent? Yes cent?	tiles) hr morks ar only 4	Listed on Nati Other (Explain eas Pocker (h.Ches)	onal Hydric Sin Remarks) Telf Sillar	oils List od Sal, al		
*(Chroma ≤ 2 with mottle Remarks: 2-6 Howlen mix Proportions. WETLAND DETER Hydrophytic Vegetation Wetland Hydrology Present?	g Conditions or Low-Chroma Co les, ≤1 without mot cd, large rig Mar 81 A g RMINATION Present? Yes (Yes)	tiles) hr morks ar only 4	Listed on Nati Other (Explain eas Pocker (h.Ches)	onal Hydric Sin Remarks) Telf Sillar	oils List od Sal, al		

DATA FORM ROUTINE WETLAND DETERMINATION (Adapted from 1987 COE Wetlands Delineation Manual form)

SWØ8

Project/Site: Seward Airport Applicant/Owner: ADOT Investigator: ABR, Inc. CRIT	Date: 5 oct of County: State: AK
Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation) Is the area a potential Problem Area? (If needed, explain on reverse.)	Yes No NWI Class:
VEGETATION	
Dominant Plant Species (%Cover) 1. ALNOKET (\$\sigma S\) 2. (PIC=FT) 7 3. 2-SAML4 C 35 4. (CALCAN 2 H FAC.) 5	Associated Plant Species Stratum Indicator
Percent of dominant Species that OBL, FACW or FAC (excluding FAC). 1/2 = 55% (D)	
Level IV Veg Class: Stco	TOTAL \$ 103
HYDROLOGY	
Recorded Data (Describe in Remarks): Stream, Lake, or Tide Gauge Aerial Photographs Other No Recorded Data Available	Wetland Hydrology Indicators: Primary Indicators:Inundated (Saturated in Upper 12 inches) —_Water Marks Drift Lines
Field Observations: Depth of Surface Water: Depth of Free Water in Pit: Depth to Saturated Soil/Permafrost: Depth to seasonal frost (in)	
Remarks: Believe saturation due to recent	heavy rains

SWOX

Profile Description:			1 1		ped Group?	Yes	No
Depth (in) Horizon	Matrix Color (Munsoil Moist)	Mottle Colors (Munsoil Mo		ottle undance/Contrast	Texture, (Structure,		ns
0-1 <u>0,</u> 1-8 <u> </u>	542.5/1 Wa	104R31		C/D	un consolido Coarse f		
Hydric Soil Indicators				•	-		
Gleyed *(Chroma ≤ 2 with mote Remarks:	l or Low-Chroma Contiles, ≤1 without mod		Omer (E	xplain in Remarks	,		
WETLAND DETE	RMINATION				# 19		
Hydrophytic Vegetatio Wetland Hydrology Pro Hydric Soils Present?	n Present? Yes.	No No No	Is this San	pling Point withi	n a Wetland?	Yes	No
Remarks:						-	
				,			
GEOGRAPHIC IN	FORMATION						
	0.13316 14	9.42447		WGS84	e) NAD83	NAD27	

Supa

DATA FORM ROUTINE WETLAND DETERMINATION (Adapted from 1987 COE Wetlands Delineation Manual form)

¥	Project/Site: Scward Arport Applicant/Owner: Investigator: ABR, Inc. Do Normal Circumstances exist on the site? Is the site significantly disturbed (Atypical Situation) Is the area a potential Problem Area? (If needed, explain on reverse.)	YES No	Date: 500 04 County: State: AK NWI Class: PSS/EM+B Photo No: York 16:06 16:07 Plot ID: SWB9
	VEGETATION		
	Dominant Plant Species (%Cover) Stratum Indicator	Associated Plant Species 09. AANG MAC TY 10. SALPUL 10 11. SALATA 10 12. EQUIPA 8 13. ACHMIL 5 14. 15. 16.	Stratum Indicator H FACIU FAC FACW FACU
	Percent of dominant Species that OBL, FACW or FAC (excluding FAC). 2/3 = 667. (0)		
	Level IV Veg Class: 5/0aw She has been cleared and perhaps seed HYDROLOGY	led of grasses. The	ck D. carpinoso, Rglanca.
	Recorded Data (Describe in Remarks):	Wetland Hydrology Indic	ators:
	Stream, Lake , or Tide Gauge	Primary Indicators:Inundated	
	Aerial Photographs Other	✓Saturated in U	pper 12 inches
-5.1	No Recorded Data Available	Water Marks Drift Lines	
	Field Observations:	Sediment Dep	
	Depth of Surface Water: home (in)	Drainage Patte Secondary Indicators (rns in Wetlands 2 or more required):
	Depth of Free Water in Pit: /O (in)		Channels in Upper 12 inches
	Depth to Saturated Soil/Permafrost: Surface (in)	Local Soil sur	vey data
	Depth to seasonal frost $\geq 1/\zeta$ (in)	FAC Neutral 1 Other (Explain	
	Remarks:		

SOILS					SWP	9
Map Unit Name (Series and Phase): Taxonomy (Subgroup):			·	Drainage Clas Field Observa Confirm map	tions	No
Profile Description: Depth (in) Horizon 0-05 0	Matrix Color (Munsoil Moist)	Mottle Color	-	Mottle Abundance/Contrast	Texture, Concre	tions
0.5-16	514//	10484/9		C/D	Si 257. grave	l-stone
			-			
Reduci	Odor Moisture Regime ng Conditions or Low-Chroma Co		Orga Liste Liste	Organic Content in Su nic Streaking in Sandy d on Local Hydric Soil d on National Hydric S r (Explain in Remarks)	Soils s List oils List	ly soils
WETLAND DETE Hydrophytic Vegetation Wetland Hydrology Pre Hydric Soils Present?	Present? (Yes)	No No No	Is this	Sampling Point within	a Wetland? Yes) No
Remarks: Safety area ad	jacent runiva	y, regula	rly c	leared.		
GEOGRAPHIC IN	FORMATION					
GPS Location: 60./	3505 149.6	42084			W6-589 NAD83 NAD27	
Air Photo ID:						

SWID

DATA FORM ROUTINE WETLAND DETERMINATION (Adapted from 1987 COE Wetlands Delineation Manual form)

Project/Site: Seward Airport	·	Date: 5007 04
Applicant/Owner: ADOT		County:
Investigator: ABR, Inc. CBH		State: AK
Do Normal Circumstances exist on the site?	(Yes) No	NWI Class: PEMI SSIB
Is the site significantly disturbed (Atypical Situation		Photo No: York 16:34
Is the area a potential Problem Area?	Yes (No)	Plot ID: ≤ωIØ
(If needed, explain on reverse.)	·	
MECETATION		
VEGETATION	· · · · · · · · · · · · · · · · · · ·	
Dominant Plant Species (%Cover) Stratum Indicator	Associated Plant Species	Stratum Indicator
2 GEARAGE 10	10 J (HORBEA)	
3. ACHMEL 15 FACE	11. GEWAC 10	- A FACH
5 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	13. LUPNOU <	- FAC
6 SM PILL 15 FACW	14 PLAMAJ 7	E I FAC
7. 10. 1	15	
8	16	
Percent of dominant Species that OBL, FACW or FAC	`	
(excluding FAC). $1/3 = 33\%$ (337.	<u> </u>	
Level IV Veg Class: Hamah		TOTAL H 77
f End of runways - cleared area. Obvious a	1 Dec. 1	tilga da sa
dominate herbaceous.	yeas of tssibremm.	weepy moast yes
AN ITMASS & milected - Kened to Pag alpiner	in former el Marco	Ci I had su la basal usa des
HYDROLOGY (Hulter))	(Hulten
The second secon	TT 1 T	
Recorded Data (Describe in Remarks):	Wetland Hydrology Indica Primary Indicators:	itors:
Stream, Lake, or Tide Gauge	Inundated	· .
Aerial Photographs Other	Saturated in Up	oper 12 inches
No Recorded Data Available	Water Marks	
	Drift Lines	
Field Observations:	Sediment Depo	
Depth of Surface Water: None (in)	Drainage Patter Secondary Indicators (2	
Depth of Free Water in Pit: World (in)		Channels in Upper 12 inches
	Water-Stained	
Depth to Saturated Soil/Permafrost: (in)	Local Soil surve	,
Depth to seasonal frost ≥ 18 (in)	FAC Neutral To	
	Other (Explain	in Remarks)
Remarks:		

SOILS			<u></u>			<u></u>
Map Unit Name		•	•	Drainage Clas	· •	
(Series and Phase):				Field Observa		··
						Yes No
Taxonomy (Subgroup):				_ communicable	va Oroup:	140
Profile Description:						
T TOTAL D'OBSTIDATE	Matrix Color	Mottle Color	s Mo	ottle	Texture, Con	ncretions
Depth (in) Horizon	(Munsoil Moist)	(Munsoil Mo	oist) Ab	undance/Contrast	Structure, et	c
0-0.5 <u>Oi</u>	1					
	CU2 Eli	254225/4		C/P	207. rocks;	1
0.5-15	542.5/1	and in		<u> </u>		
<u> </u>	·	1046	4 3 _			
						 .
			<u> </u>			
TT 11 C 11 T 11 4					. 4	
Hydric Soil Indicators	•			•	• • •	11 24
Histoso	1 '	•	Concretion	าทร	1 × × × × × × × × × × × × × × × × × × ×	. A some
Histoso				anic Content in Su	rface Laver in	Sandy soils
Sulfidic				Streaking in Sandy		J, 55
	Moisture Regime			Local Hydric Soil		***
	ng Conditions			National Hydric S		
Glaved	or Low-Chroma Co	olors*		plain in Remarks)		
Cicycu	Of LOW-Chichia Co		0 (-p,		
•					*	
*(Chroma ≤ 2 with mott	les. <1 without mot	ttles)		A 1 44 76		
Remarks:						
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Wetland Hydrology Pre		No No	ŀ			
Hydric Soils Present?	(Yes)	. 140	<u> </u>			
Remarks:						
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GI D LOCALION. WO 1/3	<u> </u>	, -		(================================		
A in Photo ID:						
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VEGETATION VERIFICATION FORM

(Rapid Vegetation and Hydrology assessment for photointerpretation)

ard Airport			_ Date:	5 Oct 04	-
)T			County:		
R Inc. CBH			_ State:	Alaska	
s exist on the	e site?	_ N	NWI Class:	PEM1/S	S1H
isturbed (At	ypical situa	tion) Y	Photo No.:	York 11	-16
oblem area?		N	Plot ID:	SV01	
		·			
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			U 5	Н	
hat are OBL, F	ACW or FAC	C: <u>100% (</u>	0)		
s: Hgmon- dist	urbed				
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Innundated Water mark Drift lines Sediment de Drainage pa	eposits atterns in w ed leaves urvey data	etlands	Hydrology Note	s:	
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OTHER NOTES: Area was formerly shrub (likely Stcaw, has been cleared. Regrowth dominated by herbaceous, some small shrubs returning. Troughs of standing water. Area probably includes some upland areas transitioning to road berm and developed ares.

Seward Airport Wetlands Assessment	36	DRAF
	Appendix C - Page 41	

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2004 Wetlands Delineation Field Check Update and Report

Prepared September 30, 2016

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FIELD TRIP REPORT

State of Alaska

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

Date: September 30, 2016 Time 10:30 am to 1:30 pm

Project Name: Seward Airport Improvements Project No: 54857

Environmental Impact Analyst

Drew von Lindern,

Noted By Mark Boydston Present: Environmental Impact Analyst

Mark Boydston, Environmental

Impact Analyst

Subject: 2004 Wetlands delineation field check update and report

On September 30, 2016, from approximately 10:30 am to 1:30 pm, DOT&PF environmental analysts (analysts) conducted a field check for Seward Airport wetlands delineated in 2004 and reported in 2005 (see attached report). The purpose of the field check was to confirm the findings and any changes to the 2004 wetlands delineation for the proposed Seward Airport Improvements project. The proposed project would impact wetlands depending on which alternative becomes the preferred alternative and proposed action.

I. Field methodology

Analysts on this field trip were both qualified to conduct wetlands delineation according to current U.S. Army Corp of Engineers Alaska Region wetlands delineation procedures. The analysts looked at the major wetland and upland areas within the Seward Airport property boundary based on 2004 mapping and updated for wetlands boundary changes using 2014 aerial imagery and ArcGIS 10.3 software (see attached Figures 1 through 3). Analysts did visual checks on existing vegetation comparing field photos taken in 2004 and using the aerial imagery from the 2005 wetlands delineation report. Other than changes to vegetated and unvegetated wetlands islands in the Resurrection River, personnel did not observe any significant changes to vegetation to the 2004 delineated wetlands.

Analysts tested 2004 delineated wetlands for hydrology by using a shovel. Wetness on the shovel indicated depth to saturation. Except for the two PEM1/SS1B wetlands at the north end of the two runways, all other delineated wetland had saturation to the surface or had standing water from 1 to 12 inches.

Analysts did not check hydric soils since as stated above, the majority of wetlands have saturation to the surface or standing water year round (see further discussion below).

II. Field results

A. Wetland boundary changes since 2004

Since 2004, islands and shore wetlands in the Resurrection River to the west of the main runway have changed location, size, and vegetation status. Most wetland islands are now unvegetated compared to 2004 likely from gradual increase in the rate of flood events since 1995 (pers. comm with DOT&PF Central Region hydrologic engineer). For example, flooding overtopped the main runway 11 times in 2010. Also, minor changes to 2004 wetlands boundaries occurred along the mean high tide line where a main estuary is located on the west side and southern end of the main runway (Runway 31).

B. Wetlands vegetation changes since 2004

Other than changes to vegetated and unvegetated wetlands islands in the Resurrection River, personnel did not observe any significant changes to vegetation to the 2004 delineated wetlands.

C. Wetlands hydrology changes since 2004

Except for the two PEM1/SS1B wetlands at the north end of the two runways 9 marked by SW09 and SW10 on the attached Figure 4), all wetlands were saturated to the surface or had standing water from 1 to 12 inches. The PEM1/SS1B wetlands at the north end of the airport had saturation within 10 inches from the surface. These two wetlands areas have been graded to remove obstructions in the runway safety area and direct drainage so the hydrology is probably altered.

D. Hydric soil changes since 2004

According to Western Regional Climate Center data for monthly precipitation records from 1983 through 2014 (see http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ak8377) for the Seward Airport and vicinity, precipitation average and standard deviation precipitation have remained about the same compared to the period from 2004 to 2014 (based on annual amounts). See table below. Therefore, analysts did not dig soil test pits to test for hydric soils because except for the PEM1/SS1B wetlands marked by SW09 and SW10 on the Google map (see attached Figure 4), all other wetlands within the Seward Airport boundary are generally saturated to surface or have standing water throughout the year.

Year range	Average (inches)	Standard Deviation (inches)
1983 - 2014	10.65	6.14
2004 - 2014	11.96	8.90

III. 2004 Wetlands ArcGIS shapefile updating

Before the September 30, 2016 field trip, the analysts re-digitized the 2004 wetlands shapefile boundaries overlaid on 2014 aerial imagery with one-foot resolution. The wetlands that changed the most between 2004 are the island and shoreline wetlands in the Resurrection River along the east side of the main runway. Since floodwaters have overtopped the main runway numerous times since 2004 and the week before this field trip, the Resurrection River shoreline and island wetlands along the main runway are in constant flux from floodwaters and changing braided channels.

A few wetlands boundaries in the estuarine/tidal zone experienced minor changes to their 2004 delineated boundaries. Personnel updated the boundary changes on the 2014 aerial imagery. See attached Figure 1 - 2004 wetlands delineation map, Figure 2 - 2005 wetlands layer on imagery,

and Figure 3 - Wetlands layer update to 2014 imagery for comparison of wetlands boundary changes since the 2004 wetlands delineation.

IV. 2004 Wetlands delineation forms updated to Alaska Region Version 2.0 Wetlands Delineation Form

Mark Boydston updated the 2004 delineation forms to the Alaska Region Version 2.0 Wetlands Delineation Forms that are in accord with the 2006 Alaska Region Supplement. The 2004 delineation used a dominance test for the hydrophytic vegetation test. The updated forms use the prescribed prevalence index. The prevalence index update did not change any of the hydrophytic vegetation tests from the 2004 delineation.

Likewise, wetlands hydrology indicators also did not change updating from the 2004 from to the current form as all wetlands had saturation or high water tables within 12 inches from the surface or standing water. As explained above, since the hydrology regime has remained the same since 2004, 2004 hydric soil tests were used for the updated form. Note soils classified in the 2004 delineation as gleyed also had mottled soil. Mottled soil in the 1987 Manual is now the 2006 Regional Supplement hydric soil Indicator A14 – Alaska Redox.

V. Conclusions

The 2004 wetlands delineation for hydrophytic vegetation, hydric soils and wetlands hydrology remains valid except for changes to island and shoreline wetlands on the Resurrection River on the main runway west side

Attachments:

Figure 1 - Seward Airport 2005 NWI wetlands classes

Figure 2 - 2005 wetlands layer on 2014 imagery

Figure 3 - Wetlands layer update to 2014 imagery

Figure 4 - Google Earth w updated sample point placemarks

Updated 2004 Wetlands delineation forms SW1 - SW10

2005 Wetlands Delineation Report

cc:

Barbara Beaton, Project Manager, Aviation Design, DOT&PF Central Region

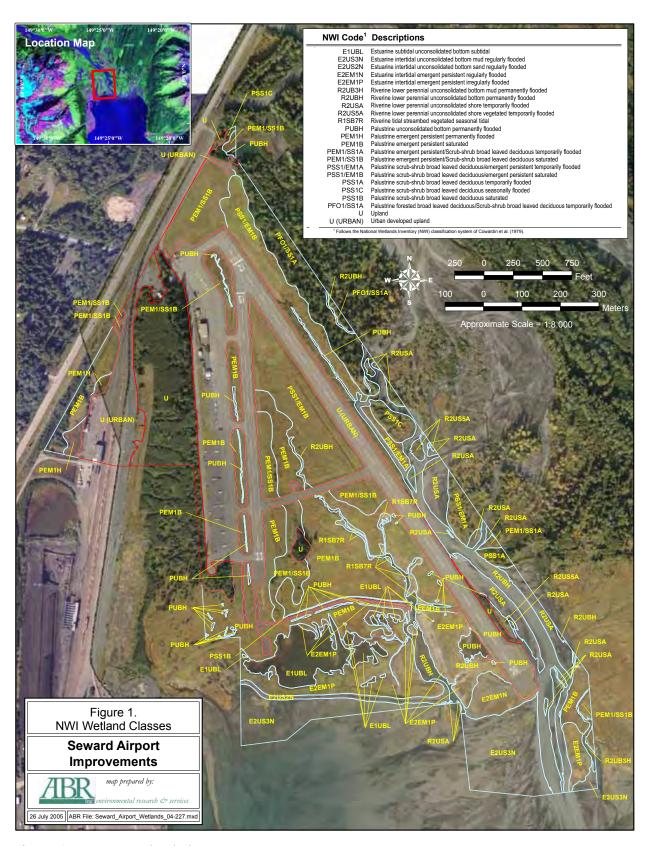
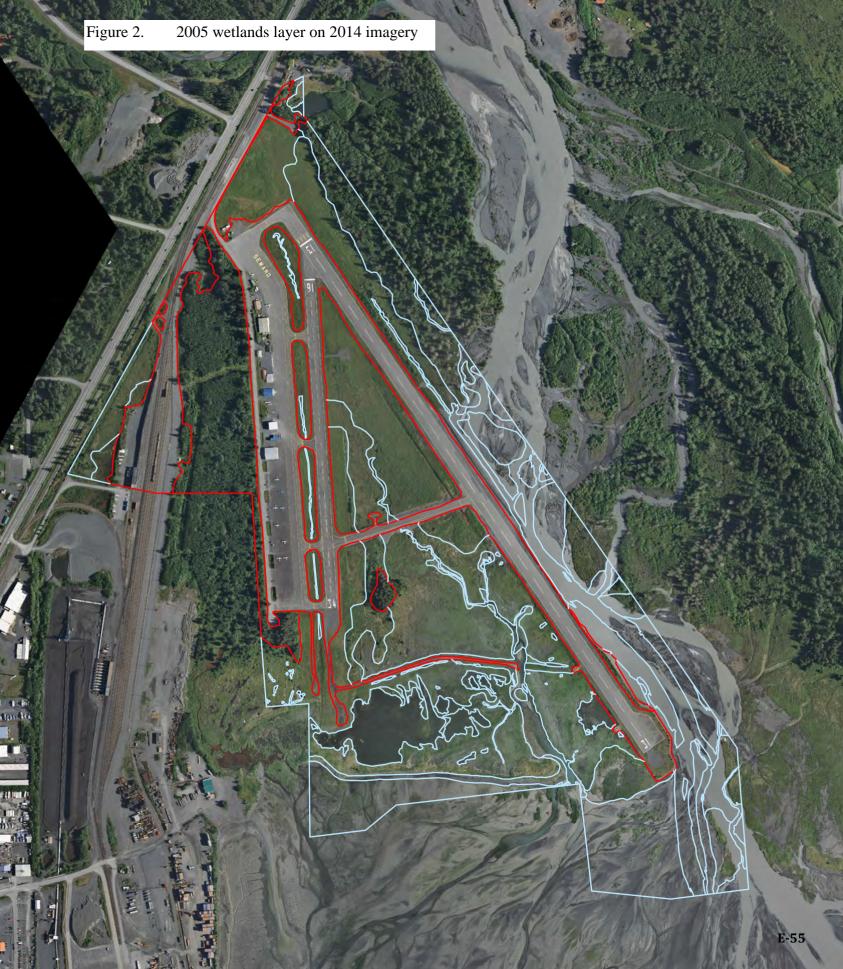
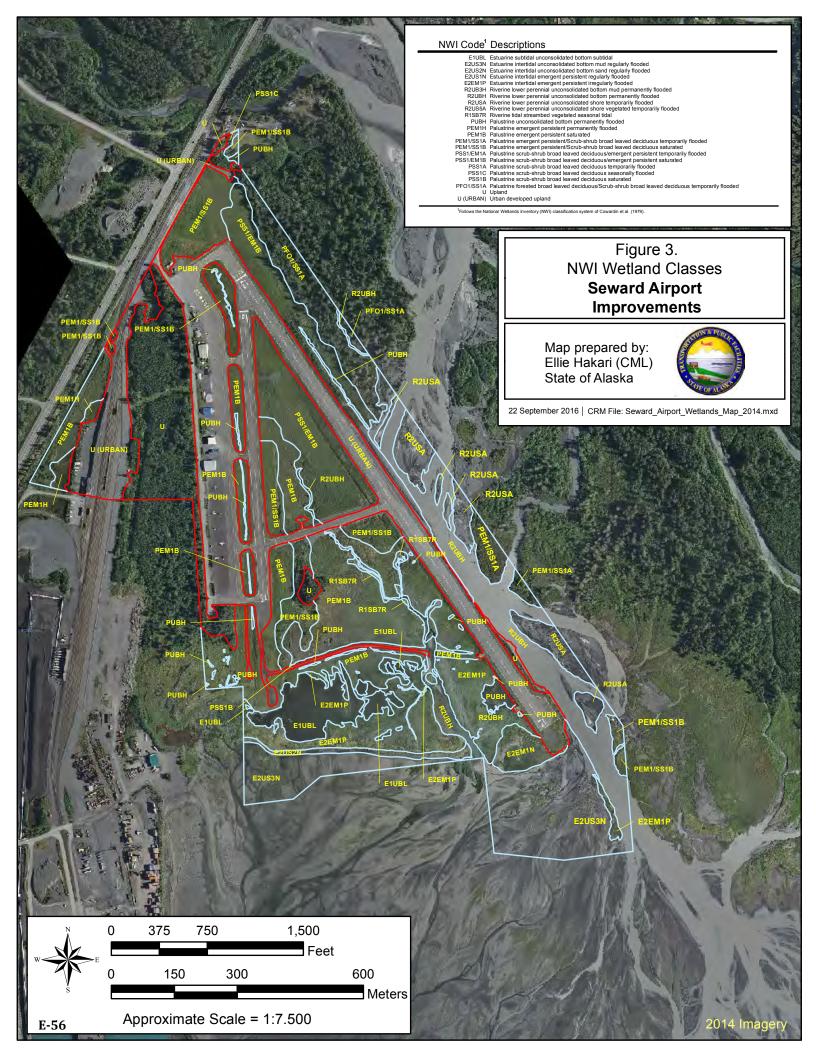


Figure 1. NWI wetland classes.







Google earth

feet meters 800

Seward Airport Improvements

Updated 2004 Wetlands field delineation

Placemarks show 2004 delineation field sample points 1 through 10 which DOT&PF field checked on September 30, 2016

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Figure 4

Project/Site: Seward Airport	Borou	gh/City: Ken	ai Peninsula	Sampling Date:	9/30/2016
Applicant/Owner: DOT&PF	_	<u> </u>		Sampling Point:	SW01
Investigator(s): Mark Boydston & Drew Vonlind	lern Landf	orm (hillside, terra			
Local relief (concave, convex, none):none					
Subregion:				Datum:	WGS 1984
Soil Map Unit Name:			NWI class	ification: PEM1	
Are climatic / hydrologic conditions on the site typical for					_
Are Vegetation mowed, Soil, or Hydrology				_ /	No
Are Vegetation, Soil, or Hydrology					
					-1-
SUMMARY OF FINDINGS – Attach site map	snowing sampii	ng point locati	ons, transects, imp	portant features,	etc.
Hydrophytic Vegetation Present? Yes	No				
	. No	Is the Sampled		es No	
	No	within a Wetlar	1a? Y	es <u>v</u> No	
Remarks:					
VEGETATION – Use scientific names of plan	nts. List all speci	es in the plot.			
		ninant Indicator	Dominance Test wo	orksheet:	
Tree Stratum		ecies? Status	Number of Dominant		
1			That Are OBL, FACV		(A)
2			Total Number of Don	ninant	
3			Species Across All S		(B)
4			Percent of Dominant	Species	
	over:		That Are OBL, FACV		(A/B)
50% of total cover: Sapling/Shrub Stratum	20% of tota	cover:	Prevalence Index w	orksheet:	
1				f: Multiply	
2				x 1 = 25	
3			FACW species	30 x 2 =	60
4.			FAC species		
5			FACU species		
6.			_	x 5 =	0.5
Total C	over:		Column Totals:5	oo (A)	(B)
50% of total cover:	20% of total	cover:	Prevalence Ind	ex = B/A =1.55	
Herb Stratum		5404	Hydrophytic Vegeta		<u> </u>
Equisetum palustre			Dominance Test	is >50%	
2. Carex aquatilis			Prevalence Inde		
3			Morphological A	daptations ¹ (Provide	supporting
4				irks or on a separate	•
5			Problematic Hyd	rophytic Vegetation	(Explain)
6 7			¹ Indicators of hydric	soil and wetland hvd	roloav must
8.			be present unless dis		
9.					
10.					
	over:				
50% of total cover:	<u> </u>	cover:			
Plot size (radius, or length x width)			Hydrophytic Vegetation		
% Cover of Wetland Bryophytes Tota (Where applicable)			Present?	Yes No	
Remarks:			1		
Visual check on vegetation					

E-58Army Corps of Engineers Alaska Version 2.0

SOIL Sampling Point: SW01

Depth (inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
111011007	Color (molet)		Color (molot)		. уро		Toxtaro	soil pit not		
	-	·						Soli pit not	required	
		 .								
		 ,								
		<u> </u>		_						
Type: C=C	oncentration D=D	enletion RM=	Reduced Matrix, C	S=Covered	or Coate	d Sand G	rains ² Loo	ation: PL=Po	ore Lining Ma	-Matriy
	Indicators:	opiction, rawi–	Indicators for				Tams. Loc	ation. TE-TC	JIC LIIIIII G, IVI-	-ividuix.
-	or Histel (A1)			lor Change (Alaska	Gleyed Witho	out Hue 5Y o	Redder
	oipedon (A2)			ine Swales (erlying Layer		
	en Sulfide (A4)			dox With 2.5				Explain in Re	marks)	
	ark Surface (A12)							•	,	
	Gleyed (A13)		³ One indicator	of hydrophyt	ic vegeta	ition, one	primary indicate	or of wetland I	hydrology,	
	Redox (A14)		and an appr	opriate lands	cape pos	sition mus	st be present un	less disturbed	d or problema	tic.
Alaska (Gleyed Pores (A15)	⁴ Give details o	f color chang	e in Rem	arks.				
estrictive	Layer (if present)									
Type:									_	
	ches):		<u>.</u>					Dragont? \	Voc V	No
							Hydric Soil	Present?	100 🔻	NO
	,						Hydric Soil	Present?	Tes <u>▼</u>	NO
Remarks:	,						Hydric Soil	Present?	165	NO
Remarks:	st required -						Hydric Soil	Present?	165	<u> </u>
Remarks:	,						Hydric Soil	Present?	163	NO
Remarks:	,						Hydric Soil	Present?	163	NO
Remarks: No soil te	st required -						Hydric Soil	Present?	163 <u> </u>	NO
Remarks: No soil te	st required -						Hydric Soil	Present	163 <u> </u>	NO
Remarks: No soil te	st required -						Hydric Soil Secondary Inc.			
Remarks: No soil te YDROLO Vetland Hy	st required -	s:	cient)				Secondary Inc		more require	
Remarks: No soil te YDROLO Vetland Hy Primary India	st required - GY drology Indicator	s:	cient) Inundation Visi	ole on Aerial	Imagery	(B7)	Secondary Inc. Water-sta	dicators (2 or	more require (B9)	
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YDROLO YDROLO Yetland Hy Surface High Wa Saturatio Water M Sedimel Drift Dep Algal Ma Iron Dep Surface Field Obser Surface Water Table Saturation P includes cap	GY drology Indicator cators (any one ind Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) vations: er Present? Present? present?	s: dicator is suffice Yes Yes Yes	Inundation Visi Sparsely Veget Marl Deposits (Hydrogen Sulfit Dry-Season Warl Other (Explain No Depth (i	ated Concav B15) de Odor (C1) ater Table (C in Remarks) nches): le nches): to s	ss than 1	2 Wet	Secondary Inc Water-sta Drainage Oxidized Presence Salt Depo Stunted of Geomorp Shallow A Microtopo FAC-Neu	dicators (2 or nined Leaves Patterns (B10 Rhizospheres of Reduced I osits (C5) or Stressed Pla hic Position (I Aquitard (D3) ographic Relie tral Test (D5)	more require (B9) D) s along Living Iron (C4) ants (D1) D2)	d) Roots (C3)
Primary India Saturatio Water M Sedimel Drift Dep Algal Ma Iron Dep Surface Water Table Saturation P Surface Water Table Saturation P Sincludes cap	GY drology Indicator cators (any one ind Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) vations: er Present? Present? present?	s: dicator is suffice Yes Yes Yes	Inundation Visi Sparsely Veget Marl Deposits (Hydrogen Sulfi Dry-Season Wi Other (Explain	ated Concav B15) de Odor (C1) ater Table (C in Remarks) nches): le nches): to s	ss than 1	2 Wet	Secondary Inc Water-sta Drainage Oxidized Presence Salt Depo Stunted of Geomorp Shallow A Microtopo FAC-Neu	dicators (2 or nined Leaves Patterns (B10 Rhizospheres of Reduced I osits (C5) or Stressed Pla hic Position (I Aquitard (D3) ographic Relie tral Test (D5)	more require (B9) D) s along Living Iron (C4) ants (D1) D2)	d) Roots (C3)
YDROLO YDROLO Wetland Hy Primary India Surface High Wa Saturatia Water M Sedimer Drift Der Algal Ma Iron Der Surface Field Obser Surface Water Table Saturation P includes car Describe Re	GY drology Indicator cators (any one ind Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) vations: er Present? Present? present?	s: dicator is suffice Yes Yes Yes	Inundation Visi Sparsely Veget Marl Deposits (Hydrogen Sulfit Dry-Season Warl Other (Explain No Depth (i	ated Concav B15) de Odor (C1) ater Table (C in Remarks) nches): le nches): to s	ss than 1	2 Wet	Secondary Inc Water-sta Drainage Oxidized Presence Salt Depo Stunted of Geomorp Shallow A Microtopo FAC-Neu	dicators (2 or nined Leaves Patterns (B10 Rhizospheres of Reduced I osits (C5) or Stressed Pla hic Position (I Aquitard (D3) ographic Relie tral Test (D5)	more require (B9) D) s along Living Iron (C4) ants (D1) D2)	d) Roots (C3)
YDROLO YDROLO Yetland Hy Surface High Wa Saturatio Water M Sedimel Drift Dep Algal Ma Iron Dep Surface Field Obser Surface Water Table Saturation P includes cap	GY drology Indicator cators (any one inc water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) vations: er Present? Present? corded Data (streat	s: dicator is suffice Yes Yes Yes	Inundation Visi Sparsely Veget Marl Deposits (Hydrogen Sulfit Dry-Season Warl Other (Explain No Depth (i	ated Concav B15) de Odor (C1) ater Table (C in Remarks) nches): le nches): to s	ss than 1	2 Wet	Secondary Inc Water-sta Drainage Oxidized Presence Salt Depo Stunted of Geomorp Shallow A Microtopo FAC-Neu	dicators (2 or nined Leaves Patterns (B10 Rhizospheres of Reduced I osits (C5) or Stressed Pla hic Position (I Aquitard (D3) ographic Relie tral Test (D5)	more require (B9) D) s along Living Iron (C4) ants (D1) D2)	d) Roots (C3)
YDROLO Vetland Hy Yorimary India Surface High Wa Saturatia Water M Sedimer Drift Der Algal Ma Iron Der Surface Vater Table Surface Water Table	GY drology Indicator cators (any one ind Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) vations: er Present? Present? present?	s: dicator is suffice Yes Yes Yes	Inundation Visi Sparsely Veget Marl Deposits (Hydrogen Sulfit Dry-Season Warl Other (Explain No Depth (i	ated Concav B15) de Odor (C1) ater Table (C in Remarks) nches): le nches): to s	ss than 1	2 Wet	Secondary Inc Water-sta Drainage Oxidized Presence Salt Depo Stunted of Geomorp Shallow A Microtopo FAC-Neu	dicators (2 or nined Leaves Patterns (B10 Rhizospheres of Reduced I osits (C5) or Stressed Pla hic Position (I Aquitard (D3) ographic Relie tral Test (D5)	more require (B9) D) s along Living Iron (C4) ants (D1) D2)	d) Roots (C3
Vetland Hydrimary India Surface High Water M Sedimer Drift Der Algal Ma Iron Der Surface Water Table india Obser surface Water Table	GY drology Indicator cators (any one inc water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) Soil Cracks (B6) vations: er Present? Present? corded Data (streat	s: dicator is suffice Yes Yes Yes	Inundation Visi Sparsely Veget Marl Deposits (Hydrogen Sulfit Dry-Season Warl Other (Explain No Depth (i	ated Concav B15) de Odor (C1) ater Table (C in Remarks) nches): le nches): to s	ss than 1	2 Wet	Secondary Inc Water-sta Drainage Oxidized Presence Salt Depo Stunted of Geomorp Shallow A Microtopo FAC-Neu	dicators (2 or nined Leaves Patterns (B10 Rhizospheres of Reduced I osits (C5) or Stressed Pla hic Position (I Aquitard (D3) ographic Relie tral Test (D5)	more require (B9) D) s along Living Iron (C4) ants (D1) D2)	d) Roots (C3

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Project/Site: Seward Airport	Borou	gh/City: Ken	ai Peninsula	Sampling Date:	9/30/2016
Applicant/Owner: DOT&PF		· ·		Sampling Point:	SW02
Investigator(s): Mark Boydston & Drew Vonlindern	Landf				
Local relief (concave, convex, none): none	Slope	(%): < 1%			
Subregion: Lat: _	60.1308	B Lon	g: -149.4279	8 Datum:	WGS 1984
Soil Map Unit Name:			NWI classif		
Are climatic / hydrologic conditions on the site typical for this t					-
Are Vegetation mowed, Soil, or Hydrology sig				_ /	No
Are Vegetation, Soil, or Hydrology na			eded, explain any answ		
					oto
SUMMARY OF FINDINGS – Attach site map sho	wing sampin	ng point locati	ons, transects, imp	Urtani leatures,	eic.
Hydrophytic Vegetation Present? Yes No		Is the Sampled	Aroa		
		within a Wetlan		s No	
Wetland Hydrology Present? Yes No		within a wettan	iu: ie	5 <u> </u>	
Remarks:					
VEGETATION – Use scientific names of plants.	List all speci	es in the plot.			
		ninant Indicator	Dominance Test wor	ksheet:	
		ecies? Status	Number of Dominant		
1			That Are OBL, FACW	, or FAC:	(A)
2			Total Number of Domi		
3			Species Across All Str	rata:	(B)
4			Percent of Dominant S		
Total Cover:		Laguari	That Are OBL, FACW	·	(A/B)
50% of total cover: Sapling/Shrub Stratum	20% 01 101a1	cover	Prevalence Index wo		
1				Multiply	
2.			OBL species		
3			FACW species		
4			FAC species		
5			FACU species	<u> </u>	
6			UPL species Column Totals:	x 5 =	120
Total Cover:			Column Totals.	40 (A)	120 (B)
50% of total cover:	_ 20% of total	cover:	Prevalence Inde	ex = B/A = 3.0	
Herb Stratum	40	FAC	Hydrophytic Vegetat	ion Indicators:	
Calamogrostis canadensis			Dominance Test i	s >50%	
2			Prevalence Index		
3			Morphological Ad	aptations ¹ (Provide	supporting
5.			Problematic Hydro	ks or on a separate	•
6.			Problematic Hydro	opinylic vegetation	(Explain)
7			¹ Indicators of hydric s	oil and wetland hyd	rology must
8.			be present unless dist	urbed or problemati	ic.
9.					
10					
Total Cover:					
50% of total cover:	_ 20% of total	cover:	Hadaaalada		
Plot size (radius, or length x width)	% Bare Groun	d	Hydrophytic Vegetation		
% Cover of Wetland Bryophytes Total Cove (Where applicable)	er of Bryophytes	3	Present? Y	es <u> </u>	
Remarks:					
Visual check on vegetation					

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SOIL Sampling Point: <u>SW02</u>

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

(inches)	Color (moist)	%	Со	olor (moist)	<u> </u>	Type ¹	Loc ²	Texture		Remarks	
									soil pit n	ot required	
								· 			
								·			
						·			•		
						·		· 	-		
		. ,									_
						· —— -			-		
								. <u></u>			
¹ Type: C=C	oncentration, D=D	epletion, R	M=Redu	ced Matrix, CS	S=Covere	d or Coated	Sand G	rains. ² Loc	cation: PL=	Pore Lining,	M=Matrix.
Hydric Soil	Indicators:		In	dicators for F	Problema	tic Hydric S	Soils³:				
Histosol	or Histel (A1)			_ Alaska Cold	_			Alaska	Gleyed Wi	ithout Hue 5Y	or Redder
Histic Ep	oipedon (A2)			_ Alaska Alpi				Unde	erlying Laye	er	
	en Sulfide (A4)			_ Alaska Red	ox With 2	.5Y Hue		Other	(Explain in	Remarks)	
· <u></u>	ark Surface (A12)		2								
	Gleyed (A13)							primary indicat			
	Redox (A14)	_,						st be present un	iless disturb	ped or proble	matic.
	Gleyed Pores (A1		-G	Sive details of	color char	nge in Rema	arks.	r			
Restrictive I	Layer (if present):									
										_/	7
Depth (in	ches):							Hydric Soil	Present?	Yes	No
Remarks:											
No soil te	st included in 200	5 wetlands	report b	ut location is i	n location	with standi	ng water	present throug	hout the gre	owing seasor	and hydrophyte
vegetatio	n present										
HYDROLO											
Wetland Hy	drology Indicato	rs:						Secondary In	dicators (2	or more requi	ired)
Primary India	cators (any one in	dicator is su	ıfficient)					Water-sta	ained Leave	es (B9)	
	Water (A1)		· · · · · · · · · · · · · · · · · · ·	undation Visib			. ,	_	Patterns (F		
High Wa	ater Table (A2)		Sp	arsely Vegeta	ited Conc	ave Surface	e (B8)	Oxidized	Rhizosphe	res along Livi	ng Roots (C3)
Saturation	on (A3)			arl Deposits (E				Presence	of Reduce	ed Iron (C4)	
Water M	larks (B1)		-	drogen Sulfid				Salt Dep			
	nt Deposits (B2)			y-Season Wa				Stunted of			
	posits (B3)		Ot	her (Explain ir	n Remarks	s)		Geomorp			
	at or Crust (B4)							Shallow /	. ,	•	
	posits (B5)								ographic Re		
	Soil Cracks (B6)							FAC-Neu	ıtral Test (D	05)	
Field Obser			7			0.45					
Surface Wat		Yes	. No	Depth (in			_				
Water Table		Yes	No	Depth (in	onco)	less than 12	-				
Saturation P		Yes	_ No	Depth (in	ches): to	surface	_ Wet	land Hydrolog	y Present?	Yes	
(includes cap Describe Re	corded Data (stre	am gauge, i	monitorin	ng well, aerial	photos, pr	evious insp	ections)	, if available:			
	`	0 0 ,		,	, ,,	·	,	•			
Remarks:											
	Shovel test										

US Army Corps of Engineers Alaska Version 2.**E-61**

Project/Site: Seward Airport	В	orougl	n/City: Ken	ai Peninsula	Sampling Date:	9/30/2016
Applicant/Owner: DOT&PF					Sampling Point:	SW03
Investigator(s): Mark Boydston / Drew Vonlinder	L	.andfor	m (hillside, terr	ace, hummocks, etc.): _	floodplain	
Local relief (concave, convex, none):	S	Slope (%):		•	
Subregion: Lat:	60.133	349	Lor	ng: -149.42358	Datum: V	NGS 1984
Soil Map Unit Name:				NWI classi		
Are climatic / hydrologic conditions on the site typical for this						
Are Vegetation, Soil, or Hydrology sig	-				,	No
Are Vegetation, Soil, or Hydrology na				eeded, explain any answ		
SUMMARY OF FINDINGS – Attach site map sho						, etc.
	_/					
Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No		ı	s the Sampled			
Wetland Hydrology Present? Yes No		'	within a Wetla	nd? Ye	es No	<u> </u>
Remarks:						
VEGETATION – Use scientific names of plants.	List all sp	pecie	s in the plot.			
			nant Indicator	Dominance Test wo	rksheet:	
<u>Tree Stratum</u>			ies? Status	Number of Dominant	Species	
1. Picnea sitchensis				That Are OBL, FACW	/, or FAC:	(A)
2. Populus tremuloides	_10	<u>Y</u>	FACU	Total Number of Dom	ninant	
3. Alnus crispus (viridis)		•		Species Across All St	trata:	(B)
4. Oplopanax horridus		-	<u>FACU</u>	Percent of Dominant		
Total Cover:				That Are OBL, FACW	<u> </u>	(A/B)
50% of total cover: Sapling/Shrub Stratum	20% 01	total c	cover:	Prevalence Index wo		
1					f: Multip	
2				OBL species		
3				FACW species	x 2 =	
4				FAC species 20 FACU species 40		
5				UPL species		
				Column Totals: 6		
Total Cover:						
50% of total cover:	20% of t	total co	over:	Prevalence Inde	ex = B/A = <u>3.7</u>	<u> </u>
1				Hydrophytic Vegeta	tion Indicators:	
2.				Dominance Test		
3.				Prevalence Index		
4.				Morphological Ac	daptations՝ (Provide rks or on a separate	e supporting e sheet)
5				Problematic Hydr	•	•
6						(=:: p:: -:::)
7				¹ Indicators of hydric s	soil and wetland hyd	drology must
8				be present unless dis	iturbed or problema	tic.
9						
10						
Total Cover:						
50% of total cover:				Hydrophytic		
Plot size (radius, or length x width)				Vegetation		/
% Cover of Wetland Bryophytes Total Cov (Where applicable)	er of Bryopl	hytes _.		Present? Y	Yes No	<u></u>
Remarks:						

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SOIL Sampling Point: SW03

Depth Matrix	Redox Features	. 2 _	
(inches) Color (moist)	% Color (moist) % Type ¹	Loc ² Texture	Remarks
Torres O. Oceanostration D. Doubleti	DN Badasad Matria 00 Occased as Ocated	01 0	ations DL Dona Linius M Matrix
Type: C=Concentration, D=Depletion Tydric Soil Indicators:	on, RM=Reduced Matrix, CS=Covered or Coated Indicators for Problematic Hydric S		cation: PL=Pore Lining, M=Matrix.
•			Olavad With aut III.a. 5V an Daddan
Histosol or Histel (A1)	Alaska Color Change (TA4) ⁴		a Gleyed Without Hue 5Y or Redder
Histic Epipedon (A2)	Alaska Alpine Swales (TA5)		erlying Layer
Hydrogen Sulfide (A4)	Alaska Redox With 2.5Y Hue	Other	(Explain in Remarks)
Thick Dark Surface (A12)	30		in a few allowed by ideals and
Alaska Gleyed (A13)	³ One indicator of hydrophytic vegetati		
Alaska Redox (A14)	and an appropriate landscape posi	·	niess disturbed or problematic.
Alaska Gleyed Pores (A15)	⁴ Give details of color change in Rema	irks.	
Restrictive Layer (if present):			
Type:			
Depth (inches):		Hydric Soil	Present? Yes No
Remarks:			
See comments 2004 de	elineation form - chroma less than or eq	ual to 1	
	elineation form - chroma less than or equ	ual to 1	
	elineation form - chroma less than or equ	ual to 1	
YDROLOGY	elineation form - chroma less than or equ		dicators (2 or more required)
YDROLOGY Wetland Hydrology Indicators:		Secondary In	dicators (2 or more required) ained Leaves (B9)
YDROLOGY Wetland Hydrology Indicators:		Secondary Ir	
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator Surface Water (A1)	r is sufficient) Inundation Visible on Aerial Imagery (Secondary Ir Water-st B7) Drainage	ained Leaves (B9)
YDROLOGY Vetland Hydrology Indicators: Primary Indicators (any one indicator Surface Water (A1) High Water Table (A2)	r is sufficient) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface	Secondary Ir Water-st B7) Drainage (B8) Oxidized	ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3)
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator Surface Water (A1) High Water Table (A2) Saturation (A3)	r is sufficient) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface Marl Deposits (B15)	Secondary Ir Water-st B7) Drainage (B8) Oxidized Presence	ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3) of Reduced Iron (C4)
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	r is sufficient) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface Marl Deposits (B15) Hydrogen Sulfide Odor (C1)	Secondary Ir Water-st B7) Drainage (B8) Oxidized Presence Salt Dep	ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3) of Reduced Iron (C4) osits (C5)
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	r is sufficient) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface Marl Deposits (B15)	Secondary Ir Water-st B7) Drainage (B8) Oxidized Presence Salt Dep Stunted	ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3) of Reduced Iron (C4) osits (C5) or Stressed Plants (D1)
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	r is sufficient) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	Secondary Ir Water-st B7) Drainage (B8) Oxidized Presence Salt Dep Stunted Geomory	ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3) of Reduced Iron (C4) osits (C5) or Stressed Plants (D1) ohic Position (D2)
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	r is sufficient) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	Secondary Ir Water-st B7) Drainage (B8) Oxidized Presence Salt Dep Stunted Geomory Shallow	ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3) of Reduced Iron (C4) osits (C5) or Stressed Plants (D1) ohic Position (D2) Aquitard (D3)
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	r is sufficient) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	Secondary Ir Water-st B7) Drainage (B8) Oxidized Presence Salt Dep Stunted Geomory Shallow Microtop	ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3) of Reduced Iron (C4) osits (C5) or Stressed Plants (D1) ohic Position (D2) Aquitard (D3) ographic Relief (D4)
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6)	r is sufficient) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	Secondary Ir Water-st B7) Drainage (B8) Oxidized Presence Salt Dep Stunted Geomory Shallow Microtop	ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3) of Reduced Iron (C4) osits (C5) or Stressed Plants (D1) ohic Position (D2) Aquitard (D3)
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Field Observations:	r is sufficient) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Other (Explain in Remarks)	Secondary Ir Water-st B7) Drainage (B8) Oxidized Presence Salt Dep Stunted Geomory Shallow Microtop	ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3) of Reduced Iron (C4) osits (C5) or Stressed Plants (D1) ohic Position (D2) Aquitard (D3) ographic Relief (D4)
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Field Observations: Surface Water Present? Yes	r is sufficient) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Other (Explain in Remarks) No Depth (inches):	Secondary Ir Water-st B7) Drainage (B8) Oxidized Presence Salt Dep Stunted Geomory Shallow Microtop	ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3) of Reduced Iron (C4) osits (C5) or Stressed Plants (D1) ohic Position (D2) Aquitard (D3) ographic Relief (D4)
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Field Observations: Surface Water Present? Yes Water Table Present?	r is sufficient) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Other (Explain in Remarks) No Depth (inches): No Depth (inches):	Secondary Ir Water-st B7) Drainage (B8) Oxidized Presence Salt Dep Stunted Geomory Shallow Hicrotop FAC-Net	ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3) of Reduced Iron (C4) osits (C5) or Stressed Plants (D1) ohic Position (D2) Aquitard (D3) ographic Relief (D4) utral Test (D5)
Wetland Hydrology Indicators: Primary Indicators (any one indicator) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Field Observations: Surface Water Present? Water Table Present? Yes Saturation Present? Yes	r is sufficient) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Other (Explain in Remarks) No Depth (inches):	Secondary Ir Water-st B7) Drainage (B8) Oxidized Presence Salt Dep Stunted Geomory Shallow Hicrotop FAC-Net	ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3) of Reduced Iron (C4) osits (C5) or Stressed Plants (D1) ohic Position (D2) Aquitard (D3) ographic Relief (D4)
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YDROLOGY Wetland Hydrology Indicators: Primary Indicators (any one indicator) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Field Observations: Surface Water Present? Ves Saturation Present? Yes includes capillary fringe) Describe Recorded Data (stream gar	r is sufficient) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Other (Explain in Remarks) No Depth (inches):	Secondary Ir Water-st B7)	ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3) of Reduced Iron (C4) osits (C5) or Stressed Plants (D1) ohic Position (D2) Aquitard (D3) ographic Relief (D4) utral Test (D5)
Wetland Hydrology Indicators: Primary Indicators (any one indicator) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B6) Field Observations: Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes (includes capillary fringe) Describe Recorded Data (stream gater)	r is sufficient) Inundation Visible on Aerial Imagery (Sparsely Vegetated Concave Surface Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Other (Explain in Remarks) No Depth (inches):	Secondary Ir Water-st B7)	ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3) of Reduced Iron (C4) osits (C5) or Stressed Plants (D1) ohic Position (D2) Aquitard (D3) ographic Relief (D4) utral Test (D5)

US Army Corps of Engineers Alaska Version 2.**F-63**

Project/Site: Seward Airport Applicant/Owner: DOT&PF Investigator(s): Mark Boydston & Drew Vonlindern Local relief (concave, convex, none):	SW04
Investigator(s): Mark Boydston & Drew Vonlindern Landform (hillside, terrace, hummocks, etc.): river delta Local relief (concave, convex, none):	
Local relief (concave, convex, none): Slope (%): < 1%_	
Subregion: Lat:Lat:Long:	NGS 1984
Soil Map Unit Name: NWI classification: U	
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)	
Are Vegetation mowed, Soil, or Hydrology significantly disturbed? Yes Are "Normal Circumstances" present? Yes	No
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, e	tc.
Hydrophytic Vegetation Present? Yes No Is the Sampled Area	
Hydric Soil Propert?	/
Wetland Hydrology Present? Yes No within a Wetland? Yes No	
Remarks:	
VECETATION - Has a significant and season of all and a High all and significant the relationship.	
VEGETATION – Use scientific names of plants. List all species in the plot.	
Absolute Dominant Indicator Tree Stratum Species? Status Number of Dominant Species	
1. Picea sitchensis 40 Y FACU That Are OBL, FACW, or FAC:	(A)
2. Alnus crispus (also viridis) 40 Y FAC Total Number of Dominant	
3 Species Across All Strata:	(B)
4 Percent of Dominant Species	
	(A/B)
50% of total cover: 20% of total cover: Prevalence Index worksheet:	
Sapling/Shrub Stratum Total % Cover of: Multiply b	oy:
1	
FACW species x 2 =	
A = A = A = A = A = A = A = A = A = A =	
FACU species 40 x4 = 160	
OPL species x 5 =	
) (B)
50% of total cover: 20% of total cover: Prevalence Index = B/A = 3.5	
Herb Stratum Hydrophytic Vegetation Indicators:	
1. Equisetum palustre 30 FACW Dominance Test is >50%	
2. Carex aquatilis 25 OBL Prevalence Index is ≤3.0	
3 Morphological Adaptations¹ (Provide su	upporting
4 data in Remarks or on a separate sh	•
5 Problematic Hydrophytic Vegetation ¹ (E	expiain)
7 ¹ Indicators of hydric soil and wetland hydro	logy must
8 be present unless disturbed or problematic.	
9	
10	
Total Cover:	
50% of total cover: 20% of total cover:	
Plot size (radius, or length x width) % Bare Ground Wegetation	
% Cover of Wetland Bryophytes Total Cover of Bryophytes Present? Yes No	_
Remarks: Visual check on vegetation	

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SOIL Sampling Point: <u>SW04</u>

Depth (inches) Co	Matrix lor (moist)	%	Redo Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
<u> </u>	ioi (moist)	70	Odior (moist)		Турс		Texture	
							<u> </u>	soil pit not required
							·	
						-		
vpe: C=Concentr	ration D=Deple	etion RM=	Reduced Matrix, C	S=Covered	or Coate	d Sand G	rains ² Lo	cation: PL=Pore Lining, M=Matrix.
ydric Soil Indicat		, , , , , , , , , , , , , , , , , , ,	Indicators for					oution. 12 7 or o 2 ming, in mature.
_ Histosol or Hist	el (A1)		Alaska Col				Alaska	a Gleyed Without Hue 5Y or Redder
Histic Epipedon			Alaska Alpi	_				erlying Layer
_ Hydrogen Sulfic			Alaska Red					(Explain in Remarks)
Thick Dark Surf	face (A12)							,
Alaska Gleyed	(A13)		³ One indicator of	of hydrophy	tic vegeta	ation, one	primary indicat	or of wetland hydrology,
_ Alaska Redox (A14)		and an appro	priate land	scape po	sition mus	st be present ur	nless disturbed or problematic.
_ Alaska Gleyed	Pores (A15)		⁴ Give details of	color chan	ge in Ren	narks.		
estrictive Layer (if present):							
Tumor								-
Type:								
,. <u> </u>							Hydric Soil	Present? Yes No
Depth (inches): _ Remarks:							Hydric Soil	Present? Yes No No
Depth (inches): _ Remarks:							Hydric Soil	Present? Yes No
Depth (inches): _ emarks: /DROLOGY								
Depth (inches): _ emarks: /DROLOGY /etland Hydrology	y Indicators:						Secondary In	dicators (2 or more required)
Depth (inches): _ emarks: /DROLOGY /etland Hydrology rimary Indicators (y Indicators: any one indica		cient)				Secondary In Water-sta	dicators (2 or more required) ained Leaves (B9)
Depth (inches): _ emarks: DROLOGY Vetland Hydrology rimary Indicators (Surface Water	y Indicators: any one indica (A1)		cient)			. ,	Secondary In Water-sta Drainage	dicators (2 or more required) ained Leaves (B9) Patterns (B10)
Depth (inches): _ emarks: DROLOGY Vetland Hydrology rimary Indicators (Surface Water High Water Tab	y Indicators: any one indica (A1) ole (A2)		cient) Inundation Visib Sparsely Vegeta	ated Conca		. ,	Secondary In Water-sta Drainage Oxidized	dicators (2 or more required) ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3
Depth (inches): _ emarks: //DROLOGY /etland Hydrology rimary Indicators (Surface Water High Water Tab Saturation (A3)	y Indicators: any one indica (A1) ble (A2)		cient) Inundation Visib Sparsely Vegeta Marl Deposits (F	ated Conca 315)	ve Surfac	. ,	Secondary In Water-sta Drainage Oxidized Presence	dicators (2 or more required) ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3
Depth (inches): _ emarks: /DROLOGY /etland Hydrology rimary Indicators (Surface Water High Water Tab Saturation (A3) Water Marks (E	y Indicators: any one indica (A1) ble (A2)		cient) Inundation Visib Sparsely Vegeta Marl Deposits (E Hydrogen Sulfid	ated Conca 315) le Odor (C1	ve Surfac	. ,	Secondary In Water-sta Drainage Oxidized Presence Salt Dep	dicators (2 or more required) ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3 of Reduced Iron (C4) osits (C5)
Depth (inches): _ emarks: /DROLOGY /etland Hydrology rimary Indicators (y Indicators: any one indica (A1) ble (A2) B1) sits (B2)		cient) Inundation Visib Sparsely Vegeta Marl Deposits (E Hydrogen Sulfid Dry-Season Wa	ated Conca 315) le Odor (C1 ter Table (0	ve Surfac	. ,	Secondary In Water-sta Drainage Oxidized Presence Salt Depo	dicators (2 or more required) ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3 of Reduced Iron (C4) osits (C5) or Stressed Plants (D1)
Depth (inches): _ emarks: DROLOGY Vetland Hydrology rimary Indicators (Surface Water High Water Tate Saturation (A3) Water Marks (E Sediment Depot Drift Deposits (I	y Indicators: any one indica (A1) ble (A2) 31) sits (B2) B3)		cient) Inundation Visib Sparsely Vegeta Marl Deposits (E Hydrogen Sulfid	ated Conca 315) le Odor (C1 ter Table (0	ve Surfac	. ,	Secondary In Water-sta Drainage Oxidized Presence Salt Depo	dicators (2 or more required) ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3 of Reduced Iron (C4) osits (C5) or Stressed Plants (D1) ohic Position (D2)
Depth (inches): _ emarks: /DROLOGY /etland Hydrology rimary Indicators (Surface Water Water Tab High Water Tab Saturation (A3) Water Marks (B Sediment Depoil Drift Deposits (I Algal Mat or Cri	y Indicators: any one indica (A1) ble (A2) 31) sits (B2) B3) ust (B4)		cient) Inundation Visib Sparsely Vegeta Marl Deposits (E Hydrogen Sulfid Dry-Season Wa	ated Conca 315) le Odor (C1 ter Table (0	ve Surfac	. ,	Secondary In Water-sta Drainage Oxidized Presence Salt Dep Stunted of Geomory Shallow	dicators (2 or more required) ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3 of Reduced Iron (C4) osits (C5) or Stressed Plants (D1) ohic Position (D2) Aquitard (D3)
Depth (inches): _ emarks: DROLOGY Vetland Hydrology rimary Indicators (Surface Water High Water Tab Saturation (A3) Water Marks (E Sediment Depo Drift Deposits (I Algal Mat or Cri Iron Deposits (E	y Indicators: any one indica (A1) ble (A2) 81) sits (B2) B3) ust (B4)		cient) Inundation Visib Sparsely Vegeta Marl Deposits (E Hydrogen Sulfid Dry-Season Wa	ated Conca 315) le Odor (C1 ter Table (0	ve Surfac	. ,	Secondary In Water-sta Drainage Oxidized Presence Salt Depo Stunted of Geomory Shallow of	dicators (2 or more required) ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3 of Reduced Iron (C4) osits (C5) or Stressed Plants (D1) ohic Position (D2) Aquitard (D3) ographic Relief (D4)
Depth (inches): _ emarks: /DROLOGY /etland Hydrology rimary Indicators (Surface Water High Water Tab Saturation (A3) Water Marks (E Sediment Depo Drift Deposits (I Algal Mat or Cri _ Iron Deposits (E Surface Soil Cr	y Indicators: any one indica (A1) ble (A2) 81) sits (B2) B3) ust (B4) 35) acks (B6)		cient) Inundation Visib Sparsely Vegeta Marl Deposits (E Hydrogen Sulfid Dry-Season Wa	ated Conca 315) le Odor (C1 ter Table (0	ve Surfac	. ,	Secondary In Water-sta Drainage Oxidized Presence Salt Depo Stunted of Geomory Shallow of	dicators (2 or more required) ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3 of Reduced Iron (C4) osits (C5) or Stressed Plants (D1) ohic Position (D2) Aquitard (D3)
Depth (inches):	y Indicators: any one indica (A1) ble (A2) sits (B2) B3) ust (B4) B5) acks (B6)	tor is suffic	cient) Inundation Visib Sparsely Vegeta Marl Deposits (E Hydrogen Sulfid Dry-Season Wa Other (Explain in	ated Conca 315) le Odor (C1 ter Table (0 n Remarks)	ve Surfac	. ,	Secondary In Water-sta Drainage Oxidized Presence Salt Depo Stunted of Geomory Shallow of	dicators (2 or more required) ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3 of Reduced Iron (C4) osits (C5) or Stressed Plants (D1) ohic Position (D2) Aquitard (D3) ographic Relief (D4)
Primary Indicators (Surface Water Algal Mat or Cri Iron Deposits (I Surface Soil Cr Surface Soil Cr Gield Observations Startace Water Pres	y Indicators: any one indicators: (A1) cole (A2) colors (B2) colors (B4) colors (B4) colors (B6) colors (B6) colors (B6) colors (B6) colors (B6) colors (B6)	tor is suffice	cient) Inundation Visib Sparsely Vegeta Marl Deposits (E Hydrogen Sulfid Dry-Season Wa Other (Explain in	ated Conca 315) le Odor (C1 ter Table ((n Remarks)	ve Surfac	ce (B8)	Secondary In Water-sta Drainage Oxidized Presence Salt Depo Stunted of Geomory Shallow of	dicators (2 or more required) ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3 of Reduced Iron (C4) osits (C5) or Stressed Plants (D1) ohic Position (D2) Aquitard (D3) ographic Relief (D4)
Depth (inches):	y Indicators: any one indica (A1) ble (A2) B31) bits (B2) B3) ust (B4) B55) acks (B6) s: ent? Ye	tor is sufficient	cient) Inundation Visib Sparsely Vegeta Marl Deposits (E Hydrogen Sulfid Dry-Season Wa Other (Explain in	ated Conca 315) le Odor (C1 ter Table (C n Remarks) aches):	ve Surface () (C2) () (ess than 1)	ne (B8)	Secondary In Water-sta Drainage Oxidized Presence Salt Depo Stunted of Geomory Shallow of Microtopo FAC-Neu	dicators (2 or more required) ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3 of Reduced Iron (C4) osits (C5) or Stressed Plants (D1) ohic Position (D2) Aquitard (D3) ographic Relief (D4) utral Test (D5)
Depth (inches):	y Indicators: any one indicators: (A1) cole (A2) (B31) cosits (B2) (B3) cust (B4) (B5) acks (B6) s: ent? Ye of Ye	tor is sufficient	cient) Inundation Visib Sparsely Vegeta Marl Deposits (E Hydrogen Sulfid Dry-Season Wa Other (Explain in	ated Conca 315) le Odor (C1 ter Table ((n Remarks)	ve Surface () (C2) () (ess than 1)	ne (B8)	Secondary In Water-sta Drainage Oxidized Presence Salt Depo Stunted of Geomory Shallow of Microtopo FAC-Neu	dicators (2 or more required) ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3 of Reduced Iron (C4) osits (C5) or Stressed Plants (D1) ohic Position (D2) Aquitard (D3) ographic Relief (D4)
Depth (inches):	y Indicators: any one indicators: any one indicators: (A1) ble (A2) B1) sits (B2) B3) ust (B4) B35) acks (B6) s: ent? Ye of Ye	tor is suffice	cient) Inundation Visib Sparsely Vegeta Marl Deposits (E Hydrogen Sulfid Dry-Season Wa Other (Explain in	ated Conca 315) le Odor (C1 ter Table (C in Remarks) aches):lic	ve Surface	12 Wet	Secondary In Water-sta Drainage Oxidized Presence Salt Dep Stunted of Geomory Hicrotope FAC-Neu	dicators (2 or more required) ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3 of Reduced Iron (C4) osits (C5) or Stressed Plants (D1) ohic Position (D2) Aquitard (D3) ographic Relief (D4) utral Test (D5)
Depth (inches):	y Indicators: any one indicators: any one indicators: (A1) ble (A2) B1) sits (B2) B3) ust (B4) B35) acks (B6) s: ent? Ye of Ye	tor is suffice	cient) Inundation Visib Sparsely Vegeta Marl Deposits (E Hydrogen Sulfid Dry-Season Wa Other (Explain in the content of th	ated Conca 315) le Odor (C1 ter Table (C in Remarks) aches):lic	ve Surface	12 Wet	Secondary In Water-sta Drainage Oxidized Presence Salt Dep Stunted of Geomory Hicrotope FAC-Neu	dicators (2 or more required) ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3 of Reduced Iron (C4) osits (C5) or Stressed Plants (D1) ohic Position (D2) Aquitard (D3) ographic Relief (D4) utral Test (D5)
Depth (inches):	y Indicators: any one indica (A1) ble (A2) B31) sits (B2) B3) ust (B4) B5) acks (B6) s: ent? Ye of Ye ringe) Data (stream to	tor is suffice	cient) Inundation Visib Sparsely Vegeta Marl Deposits (E Hydrogen Sulfid Dry-Season Wa Other (Explain in the content of th	ated Conca 315) le Odor (C1 ter Table (C in Remarks) aches):lic	ve Surface	12 Wet	Secondary In Water-sta Drainage Oxidized Presence Salt Dep Stunted of Geomory Hicrotope FAC-Neu	dicators (2 or more required) ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3 of Reduced Iron (C4) osits (C5) or Stressed Plants (D1) ohic Position (D2) Aquitard (D3) ographic Relief (D4) utral Test (D5)
Depth (inches): _ emarks: POROLOGY Vetland Hydrology rimary Indicators (_ Surface Water High Water Tab Saturation (A3) Water Marks (E Sediment Depo Drift Deposits (I Algal Mat or Cri Iron Deposits (I Surface Soil Cri ield Observations urface Water Preservaturation Present? rocludes capillary freescribe Recorded	y Indicators: any one indicators: any one indicators: (A1) ble (A2) B1) sits (B2) B3) ust (B4) B35) acks (B6) s: ent? Ye of Ye	tor is suffice	cient) Inundation Visib Sparsely Vegeta Marl Deposits (E Hydrogen Sulfid Dry-Season Wa Other (Explain in	ated Conca 315) le Odor (C1 ter Table (C in Remarks) aches):lic	ve Surface	12 Wet	Secondary In Water-sta Drainage Oxidized Presence Salt Dep Stunted of Geomory Hicrotope FAC-Neu	dicators (2 or more required) ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3 of Reduced Iron (C4) osits (C5) or Stressed Plants (D1) ohic Position (D2) Aquitard (D3) ographic Relief (D4) utral Test (D5)

US Army Corps of Engineers Alaska Version 2.**E-65**

Project/Site: Seward Airport	E	Boroug	gh/City	r: Kena	ai Peninsula	_ Sampling Da	ate: <u>9/</u>	30/2016
Applicant/Owner: DOT&PF						_ Sampling Po	oint: <u>S\</u>	N05
Investigator(s): Mark Boydston / Drew Vonlinder	1	Landfo	orm (h	illside, terra	ace, hummocks, etc.):	floodplain		
Local relief (concave, convex, none):	;	Slope	(%): _			•		
Subregion: Lat: _	60.12	775		Lon	g: -149.41913	Datu	m:WGS	1984
Soil Map Unit Name:					NWI classifi	cation: PE	M1B	
Are climatic / hydrologic conditions on the site typical for this	time of yea	ar? Ye						
Are Vegetation, Soil, or Hydrology sig	•				·	•	V	No
Are Vegetation, Soil, or Hydrology na								
SUMMARY OF FINDINGS – Attach site map sho				_				
Hydrophytic Vegetation Present? Yes No								
				Sampled		/		
_ //			withi	n a Wetlan	ıd? Yes	s N	o	_
Remarks:								
VEGETATION – Use scientific names of plants.	List all s	pecie	es in	the plot.				
'	Absolute	•			Dominance Test wor	ksheet:		
	% Cover	Spe	cies?	Status	Number of Dominant S	Species		
1					That Are OBL, FACW,	or FAC:		(A)
2					Total Number of Domin			
3					Species Across All Stra	ata:		(B)
4Total Cover:					Percent of Dominant S That Are OBL, FACW,			(A/R)
50% of total cover:			cover	<u> </u>	Prevalence Index wo	<u> </u>		(/\/\
Sapling/Shrub Stratum					Total % Cover of:		ultiply by	
1					OBL species			
2					FACW species			
3					FAC species 25			
4					FACU species			
5					UPL species			
					Column Totals: 40	(A)	90	(B)
Total Cover:						544 3	25	
Herb Stratum	_ 20% 01	เบเลเ	cover.		Prevalence Index			
1. Calamogrostis canadensis	25	Υ		FAC	Hydrophytic Vegetati		5:	
2. <u>Carex lenticularis</u>				OBL	Dominance Test is Prevalence Index			
3					Morphological Ada		wide sun	norting
4					data in Remark	s or on a sepa	arate she	et)
5					Problematic Hydro	ophytic Vegeta	ition¹ (Ex	plain)
6					1			
7					¹ Indicators of hydric so be present unless disto	oil and wetland urbed or proble	d hydrolog ematic	gy must
8					Do procent amose dist			
9								
10								
Total Cover:								
50% of total cover:					Hydrophytic			
Plot size (radius, or length x width) % Cover of Wetland Bryophytes Total Cover					Vegetation Present? Ye	es 🖊 N	lo	_
(Where applicable) Remarks:								
TOTALIO.								

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SOIL Sampling Point: SW05

	cription: (Describe	to the depti				or confirm	n the absence of	indicators.)
Depth	Matrix			ox Feature		12	T t	Damada
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
-								
-				_	· ——			
-								
¹ Type: C=C	oncentration, D=De	pletion, RM=I	Reduced Matrix, C	S=Covere	d or Coate	d Sand G	rains. ² Locati	on: PL=Pore Lining, M=Matrix.
Hydric Soil		,	Indicators for					<u> </u>
Histoso	l or Histel (A1)		Alaska Co	lor Change	(TA4) ⁴		Alaska Gl	eyed Without Hue 5Y or Redder
Histic E	pipedon (A2)		Alaska Alp	ine Swales	(TA5)			ing Layer
Hydroge	en Sulfide (A4)		Alaska Re	dox With 2	.5Y Hue		Other (Ex	plain in Remarks)
Thick D	ark Surface (A12)							
Alaska	Gleyed (A13)		³ One indicator	of hydroph	ytic vegeta	ation, one	primary indicator	of wetland hydrology,
Alaska	Redox (A14)		and an appr	opriate land	dscape pos	sition mus	t be present unles	s disturbed or problematic.
Alaska	Gleyed Pores (A15)		⁴ Give details o	f color char	nge in Rem	narks.		
	Layer (if present):							
Type:								_
Depth (in							Hydric Soil Pr	esent? Yes No No
Remarks:							,	
	esults from 200	M dolingo	tion					
3011 1	esuits mom 200	14 ucililea	tion					
HYDROLC	GY							
Wetland Hy	drology Indicators	:					Secondary Indicate	ators (2 or more required)
Primary Indi	cators (any one indi	cator is suffic	ient)				Water-staine	ed Leaves (B9)
Surface	Water (A1)	_	_ Inundation Visi	ble on Aeria	al Imagery	(B7)	Drainage Pa	atterns (B10)
High W	ater Table (A2)	_	_ Sparsely Veget	tated Conca	ave Surfac	e (B8)	Oxidized Rh	izospheres along Living Roots (C3)
Saturati	on (A3)	_	_ Marl Deposits (B15)			Presence of	Reduced Iron (C4)
Water N	/larks (B1)	_	_ Hydrogen Sulfi	de Odor (C	1)		Salt Deposit	s (C5)
Sedime	nt Deposits (B2)	_	_ Dry-Season Wa	ater Table ((C2)		Stunted or S	Stressed Plants (D1)
Drift De	posits (B3)	_	_ Other (Explain	in Remarks	s)		Geomorphic	Position (D2)
Algal M	at or Crust (B4)						Shallow Aqu	uitard (D3)
Iron De	posits (B5)						Microtopogr	aphic Relief (D4)
Surface	Soil Cracks (B6)						FAC-Neutra	l Test (D5)
Field Obser	rvations:							
Surface Wa	ter Present?	Yes <u> </u>	lo Depth (i	nches):	0-5			
Water Table	Present?	Yes ∠ N	lo V Depth (i	nches):				-
Saturation F	Present?	Yes N	*	nches): S		Wetl	and Hydrology P	resent? Yes No
(includes ca	pillary fringe)							
Describe Re	ecorded Data (strear	n gauge, mor	nitoring well, aeria	l photos, pr	evious ins	pections),	if available:	
Remarks:								
	shovel test							

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Project/Site: Seward Airport	Borou	ıgh/City: Ken	ai Peninsula	Sampling Date: 9/30/2016
Applicant/Owner: DOT&PF				_ Sampling Point: <u>SW06</u>
Investigator(s): Mark Boydston / Drew Vonlindern	Landi	form (hillside, terr	race, hummocks, etc.):	floodplain
Local relief (concave, convex, none):				
Subregion: Lat: _	60.12803	Lor	ng: -149.41859	Datum: WGS 1984
Soil Map Unit Name:			NWI classific	
Are climatic / hydrologic conditions on the site typical for this t				
Are Vegetation, Soil, or Hydrology sig	-			
Are Vegetation, Soil, or Hydrology na				
SUMMARY OF FINDINGS – Attach site map sho				
		Is the Sampled		
		within a Wetla	nd? Yes	s No
Remarks:				
VECETATION Lies established and as a financial	Liet ell ence	ica in the plat		
VEGETATION – Use scientific names of plants.	<u> </u>	·		
		ninant Indicator ecies? Status	Dominance Test work	
1			Number of Dominant S That Are OBL, FACW,	
2.				, ,
3			Total Number of Domir Species Across All Stra	
4.				
Total Cover:			Percent of Dominant S That Are OBL, FACW,	
50% of total cover:	20% of tota	l cover:	Prevalence Index wor	
Sapling/Shrub Stratum			Total % Cover of:	
1				x 1 =
2				x 2 = 30
3				x 3 = <u>39</u>
4			FACU species 17	x 4 = <u>68</u>
5				x 5 =
6Total Cover:			Column Totals: 45	(A) <u>137</u> (B)
50% of total cover:		cover.	Drovalones Indov	ν = P/Λ = 2 O
Herb Stratum	20 /0 01 10101		Hydrophytic Vegetati	c = B/A = <u>3.0</u>
Calamagrostis canadensis	8		Dominance Test is	
2. Arctagrostis latifolia			Prevalence Index	
3. Angelica lucida				aptations ¹ (Provide supporting
4. Alnus crispus (also viridis)			data in Remark	ss or on a separate sheet)
5			Problematic Hydro	pphytic Vegetation ¹ (Explain)
6			1	
7			be present unless distu	oil and wetland hydrology must urbed or problematic.
8			<u>'</u>	
9				
10				
Total Cover:		001/05		
50% of total cover:			Hydrophytic	
Plot size (radius, or length x width) % Cover of Wetland Bryophytes Total Cove			Vegetation Present? Ye	es No
(Where applicable) Remarks:				

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SOIL Sampling Point: SW06

Profile Description: (Desc	ribe to the depth			icator or co	onfirm the	e absence	of indicators.)	
Depth Mat			Features	- 1 .	2 -	- .		
(inches) Color (mois	t) %	Color (moist)	<u> %</u> T	Type ¹ Lo	oc² -	<u>Texture</u>	Remarks	<u> </u>
¹ Type: C=Concentration, D=	Denletion RM=F	Reduced Matrix CS	=Covered or	Coated Sa	and Grains	2 l o	cation: PL=Pore Lining,	M=Matrix
Hydric Soil Indicators:	Depiction, raw 1	Indicators for P				j. Loc	batton. TE Torc Eming,	W Watth.
Histosol or Histel (A1)		Alaska Colo				Alaska	Gleyed Without Hue 5	or Redder
Histic Epipedon (A2)		Alaska Alpin			-		erlying Layer	i oi rioddol
Hydrogen Sulfide (A4)		Alaska Redo	,	•			(Explain in Remarks)	
Thick Dark Surface (A12))	/ llaska / teac	X WIGH 2.01	1100	-	00101	(Explain in Remarko)	
Alaska Gleyed (A13)	-/	³ One indicator of	hydronhytic	vegetation	one nrim	arv indicat	or of wetland hydrology,	
Alaska Redox (A14)				•		•	iless disturbed or proble	
Alaska Gleyed Pores (A	15)	⁴ Give details of c				prosent un	iledo diotarbed or proble	matio.
Restrictive Layer (if preser		Olve details of a	olor orlange	III I CIII CIII CIII CIII CIII CIII CI	J.			
_	•							
Type:					١		Present? Yes	No
Depth (inches):					Н	iyarıc Soli	Present? Yes	
Remarks:								
i								
HYDROLOGY								
Wetland Hydrology Indica	ors.				Se	condary In	dicators (2 or more requ	uired)
Primary Indicators (any one		ont)			<u>00</u>	-	ained Leaves (B9)	<u>iiicaj</u>
	indicator is suffici			(D7)				
Surface Water (A1)		_ Inundation Visible					Patterns (B10)	in D t- (00)
High Water Table (A2)		_ Sparsely Vegetat		Surrace (B			Rhizospheres along Liv	ing Roots (C3)
Saturation (A3)		_ Marl Deposits (B	•				e of Reduced Iron (C4)	
Water Marks (B1)		_ Hydrogen Sulfide				Salt Depo		
Sediment Deposits (B2)	_	_ Dry-Season Wate)	_	_	or Stressed Plants (D1)	
Drift Deposits (B3)		_ Other (Explain in	Remarks)				phic Position (D2)	
Algal Mat or Crust (B4)							Aquitard (D3)	
Iron Deposits (B5)							ographic Relief (D4)	
Surface Soil Cracks (B6)				_	FAC-Neu	itral Test (D5)	
Field Observations:								
Surface Water Present?			hes):					
Water Table Present?	Yes No		hes):				_/	
Saturation Present?	Yes No	o Depth (inc	hes): <u>8</u>		Wetland	Hydrolog	y Present? Yes 📉	No
(includes capillary fringe) Describe Recorded Data (st	eam gauge, mon	itoring well, aerial p	hotos, previo	ous inspecti	ions). if av	/ailable:		
(0.	J J.,	Ç : , p	- 7 21 - 114	- 1 30	.,,4.			
Remarks:								
Shovel test								

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Project/Site: Seward Airport	В	orough/City: Kena	ai Peninsula	_ Sampling Date:9/30/2016
Applicant/Owner: DOT&PF				_ Sampling Point: SW07
Investigator(s): Mark Boydston / Dre	ew Vonlindern L			
Local relief (concave, convex, none):				
Subregion:				Datum: WGS 1984
Soil Map Unit Name:			NWI classifi	
Are climatic / hydrologic conditions on the s				·
Are Vegetation, Soil, or Hyd				
Are Vegetation, Soil, or Hyd				
			-	
SUMMARY OF FINDINGS – Attac	This ite map showing sai	Tipling point location	ons, transects, impo	Tranii leatures, etc.
Hydrophytic Vegetation Present?	Yes No	Is the Sampled	Aroa	
Hydric Soil Present?	Yes No	within a Wetlan		s No
Wetland Hydrology Present?	Yes No	within a wetian	10: 16:	, NO
Remarks:				
VEGETATION – Use scientific nan	nes of plants. List all s	pecies in the plot.		
	Absolute	Dominant Indicator	Dominance Test wor	ksheet:
Tree Stratum	70	Species? Status	Number of Dominant S	
1. Pices sitchensis		<u>FACU</u>	That Are OBL, FACW,	or FAC: (A)
2			Total Number of Domi	
3			Species Across All Str	ata: (B)
4			Percent of Dominant S	
50% of to	Total Cover: 20% of	total cover:		or FAC: (A/B)
Sapling/Shrub Stratum	Mai cover 20 % 01	total cover	Prevalence Index wo	
1				Multiply by:
2				x 1 =
3				x 2 = x 3 =60
4				x 4 = 320
5			•	x 5 =
6			Column Totals: 10	
	Total Cover:			, , , ,
50% of to Herb Stratum	tal cover: 20% of	total cover:		x = B/A = <u>3.8</u>
Alnus viridis (aka crispus)	10	FAC	Hydrophytic Vegetat	
Angelica lucida		FACU	Dominance Test is	
3. Equisetum arvense		FAC	Prevalence Index	
4.			Morphological Ada	aptations ¹ (Provide supporting so or on a separate sheet)
5				ophytic Vegetation ¹ (Explain)
6				
7			Indicators of hydric set be present unless distr	oil and wetland hydrology must
8			be present unless dist	arbed or problematic.
9	·			
10				
	Total Cover:			
	tal cover: 20% of		Hydrophytic	
Plot size (radius, or length x width)			Vocatation	es No <u></u>
% Cover of Wetland Bryophytes(Where applicable)	I otal Cover of Bryop	nytes	Present? Yo	;3 NO <u>▼</u> _
Remarks:				
1				

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SOIL Sampling Point: <u>SW07</u>

Depth <u>Ma</u>			x Features				
inches) Color (mo	ist) %	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remarks
· · · · · · · · · · · · · · · · · · ·							
			· — — -				
ype: C=Concentration, D	=Depletion, RM=	Reduced Matrix, CS	S=Covered o	or Coate	d Sand Gi	rains. ² Lo	cation: PL=Pore Lining, M=Matrix.
ydric Soil Indicators:	- p ,	Indicators for P					, , , , , , , , , , , , , , , , , , ,
_ Histosol or Histel (A1)		Alaska Colo				Alaska	a Gleyed Without Hue 5Y or Redder
Histic Epipedon (A2)		Alaska Alpir					erlying Layer
, ,		Alaska Red					
_ Hydrogen Sulfide (A4)	12)	Alaska Keu	OA VVIUI Z.SY	iiue		Other	(Explain in Remarks)
_ Thick Dark Surface (A	12)	30					
Alaska Gleyed (A13)						-	tor of wetland hydrology,
_ Alaska Redox (A14)						t be present ur	nless disturbed or problematic.
_ Alaska Gleyed Pores (⁴ Give details of o	color change	e in Rem	narks.		
estrictive Layer (if prese	ent):						
Туре:							_
Depth (inches):						Hydric Soil	Present? Yes No
emarks:		only 4 inches n	neets low	chrom	a indica		I Present? Yes No
emarks: 2004 soil data r			neets low	chrom	a indica		I Present? Yes No
emarks: 2004 soil data r			neets low	chrom	a indica	tor	
emarks: 2004 soil data r	notes margina		neets low	chrom	a indica	tor	ndicators (2 or more required)
emarks: 2004 soil data r /DROLOGY /etland Hydrology Indica	notes margina	only 4 inches n	neets low	chrom	a indica	tor Secondary Ir	
emarks: 2004 soil data r /DROLOGY /etland Hydrology Indica	notes margina	only 4 inches n				tor Secondary Ir Water-st	ndicators (2 or more required)
emarks: 2004 soil data r /DROLOGY /etland Hydrology Indications (any one	notes margina ators: e indicator is suffic	only 4 inches n	e on Aerial I	Imagery	(B7)	Secondary Ir Water-st Drainage	ndicators (2 or more required) ained Leaves (B9)
emarks: 2004 soil data r /DROLOGY /etland Hydrology Indications (any one of the control of the	notes margina ators: e indicator is suffic	only 4 inches n	e on Aerial I ted Concave	Imagery	(B7)	Secondary In Water-st Drainage Oxidized	ndicators (2 or more required) ained Leaves (B9) e Patterns (B10) I Rhizospheres along Living Roots (C3
/DROLOGY //etland Hydrology Indicatrimary Indicators (any one Surface Water (A1) High Water Table (A2) Saturation (A3)	notes margina ators: e indicator is suffic	cient) I nundation Visible Sparsely Vegeta Marl Deposits (B	e on Aerial I ted Concave	Imagery e Surfac	(B7)	Secondary Ir Water-st Drainage Oxidized Presence	ndicators (2 or more required) ained Leaves (B9) Patterns (B10) I Rhizospheres along Living Roots (C3
PROLOGY Petland Hydrology Indicationary Indicators (any one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	notes margina ators:	cient) I nundation Visible Sparsely Vegeta Marl Deposits (B Hydrogen Sulfide	e on Aerial I ted Concave 115) e Odor (C1)	lmagery e Surfac	(B7)	Secondary Ir Water-st Drainage Oxidized Presence Salt Dep	ndicators (2 or more required) ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3 of Reduced Iron (C4) osits (C5)
emarks: 2004 soil data r /DROLOGY /etland Hydrology Indications (any one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	notes margina ators: e indicator is suffice	cient) I nundation Visible Sparsely Vegeta Marl Deposits (B Hydrogen Sulfide Dry-Season Wat	e on Aerial I ted Concave :15) e Odor (C1) er Table (C2	lmagery e Surfac	(B7)	Secondary Ir Water-st Drainage Oxidized Presence Salt Dep Stunted	adicators (2 or more required) ained Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3 of Reduced Iron (C4) Posits (C5) or Stressed Plants (D1)
Pemarks: 2004 soil data r 2004 soil data r 2004 soil data r 2008 20	notes margina ators: e indicator is suffice	cient) I nundation Visible Sparsely Vegeta Marl Deposits (B Hydrogen Sulfide	e on Aerial I ted Concave :15) e Odor (C1) er Table (C2	lmagery e Surfac	(B7)	Secondary Ir Water-st Drainage Oxidized Presence Salt Dep Stunted Geomory	ndicators (2 or more required) ained Leaves (B9) e Patterns (B10) I Rhizospheres along Living Roots (C3 e of Reduced Iron (C4) osits (C5) or Stressed Plants (D1) phic Position (D2)
Print Deposits (B3) Algal Mat or Crust (B4)	notes margina ators: e indicator is suffice	cient) I nundation Visible Sparsely Vegeta Marl Deposits (B Hydrogen Sulfide Dry-Season Wat	e on Aerial I ted Concave :15) e Odor (C1) er Table (C2	lmagery e Surfac	(B7)	Secondary Ir Water-st Drainage Oxidized Presence Salt Dep Stunted Geomory Shallow	adicators (2 or more required) ained Leaves (B9) e Patterns (B10) I Rhizospheres along Living Roots (C3 e of Reduced Iron (C4) osits (C5) or Stressed Plants (D1) phic Position (D2) Aquitard (D3)
Property (Page 1997)	ators: e indicator is suffice	cient) I nundation Visible Sparsely Vegeta Marl Deposits (B Hydrogen Sulfide Dry-Season Wat	e on Aerial I ted Concave :15) e Odor (C1) er Table (C2	lmagery e Surfac	(B7)	Secondary Ir Water-st Drainage Oxidized Presence Salt Dep Stunted Geomory Shallow Microtop	adicators (2 or more required) ained Leaves (B9) e Patterns (B10) I Rhizospheres along Living Roots (C3 e of Reduced Iron (C4) posits (C5) or Stressed Plants (D1) phic Position (D2) Aquitard (D3) ographic Relief (D4)
emarks: 2004 soil data r /DROLOGY /etland Hydrology Indication (any one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (B	ators: e indicator is suffice	cient) I nundation Visible Sparsely Vegeta Marl Deposits (B Hydrogen Sulfide Dry-Season Wat	e on Aerial I ted Concave :15) e Odor (C1) er Table (C2	lmagery e Surfac	(B7)	Secondary Ir Water-st Drainage Oxidized Presence Salt Dep Stunted Geomory Shallow Microtop	adicators (2 or more required) ained Leaves (B9) e Patterns (B10) I Rhizospheres along Living Roots (C3 e of Reduced Iron (C4) osits (C5) or Stressed Plants (D1) phic Position (D2) Aquitard (D3)
POROLOGY Vetland Hydrology Indicated Frimary Indicators (any one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (Bield Observations:	ators: e indicator is suffice	cient) I only 4 inches noted in	e on Aerial I ted Concave :15) e Odor (C1) er Table (C2 i Remarks)	Imagery e Surfac 2)	(B7) e (B8)	Secondary Ir Water-st Drainage Oxidized Presence Salt Dep Stunted Geomory Shallow Microtop	adicators (2 or more required) ained Leaves (B9) e Patterns (B10) I Rhizospheres along Living Roots (C3 e of Reduced Iron (C4) posits (C5) or Stressed Plants (D1) phic Position (D2) Aquitard (D3) ographic Relief (D4)
POROLOGY Vetland Hydrology Indicated Frimary Indicators (any one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (Bield Observations:	notes margina ators: e indicator is suffice	cient) I nundation Visible Sparsely Vegeta Marl Deposits (B Hydrogen Sulfide Dry-Season Wat Other (Explain in	e on Aerial I ted Concave (15) e Odor (C1) er Table (C2 n Remarks)	Imagery e Surfac 2)	(B7) e (B8)	Secondary Ir Water-st Drainage Oxidized Presence Salt Dep Stunted Geomory Shallow Microtop	adicators (2 or more required) ained Leaves (B9) e Patterns (B10) I Rhizospheres along Living Roots (C3 e of Reduced Iron (C4) posits (C5) or Stressed Plants (D1) phic Position (D2) Aquitard (D3) ographic Relief (D4)
Property of the property of th	ators: e indicator is suffice 2) 6) Yes N	cient) I nundation Visibl Sparsely Vegeta Marl Deposits (B Hydrogen Sulfide Dry-Season Wat Other (Explain in	e on Aerial I ted Concave (15) e Odor (C1) er Table (C2 n Remarks)	Imagery e Surfac 2)	(B7) ee (B8)	Secondary Ir Water-st Drainage Oxidized Presence Salt Dep Stunted Geomory Shallow Microtop FAC-Net	adicators (2 or more required) ained Leaves (B9) e Patterns (B10) I Rhizospheres along Living Roots (C3 e of Reduced Iron (C4) osits (C5) or Stressed Plants (D1) phic Position (D2) Aquitard (D3) ographic Relief (D4) utral Test (D5)
/DROLOGY //etland Hydrology Indicatrimary Indicators (any one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (Bield Observations: urface Water Present? //ater Table Present?	ators: e indicator is suffice 2) Yes N	cient) I nundation Visibl Sparsely Vegeta Marl Deposits (B Hydrogen Sulfide Dry-Season Wat Other (Explain in	e on Aerial I ted Concave (15) e Odor (C1) er Table (C2 n Remarks)	Imagery e Surfac 2)	(B7) ee (B8)	Secondary Ir Water-st Drainage Oxidized Presence Salt Dep Stunted Geomory Shallow Microtop FAC-Net	adicators (2 or more required) ained Leaves (B9) e Patterns (B10) I Rhizospheres along Living Roots (C3 e of Reduced Iron (C4) posits (C5) or Stressed Plants (D1) phic Position (D2) Aquitard (D3) ographic Relief (D4)
POROLOGY Vetland Hydrology Indication Present? Mater Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Water Present? Vater Table Present? aturation Present? Includes capillary fringe)	ators: e indicator is suffice 2) Yes N Yes N	cient) I nundation Visible Sparsely Vegeta Marl Deposits (B Hydrogen Sulfide Dry-Season Wat Other (Explain in	e on Aerial I ted Concave (15) e Odor (C1) er Table (C2 n Remarks) ches): ches):	Imagery e Surfac 2)	(B7) e (B8) Wetl	Secondary Ir Water-st Drainage Oxidized Presence Salt Dep Stunted Geomory Shallow Microtop FAC-Net	adicators (2 or more required) ained Leaves (B9) e Patterns (B10) I Rhizospheres along Living Roots (C3 e of Reduced Iron (C4) osits (C5) or Stressed Plants (D1) phic Position (D2) Aquitard (D3) ographic Relief (D4) utral Test (D5)
Print Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	ators: e indicator is suffice 2) Yes N Yes N	cient) I nundation Visible Sparsely Vegeta Marl Deposits (B Hydrogen Sulfide Dry-Season Wat Other (Explain in	e on Aerial I ted Concave (15) e Odor (C1) er Table (C2 n Remarks) ches): ches):	Imagery e Surfac 2)	(B7) e (B8) Wetl	Secondary Ir Water-st Drainage Oxidized Presence Salt Dep Stunted Geomory Shallow Microtop FAC-Net	adicators (2 or more required) ained Leaves (B9) e Patterns (B10) I Rhizospheres along Living Roots (C3 e of Reduced Iron (C4) osits (C5) or Stressed Plants (D1) phic Position (D2) Aquitard (D3) ographic Relief (D4) utral Test (D5)
POROLOGY Vetland Hydrology Indication Present? Algal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (Bield Observations: urface Water Present? Vater Table Present? aturation Present? accurate Recorded Data (see Preser Pres	ators: e indicator is suffice 2) Yes N Yes N	cient) I nundation Visible Sparsely Vegeta Marl Deposits (B Hydrogen Sulfide Dry-Season Wat Other (Explain in	e on Aerial I ted Concave (15) e Odor (C1) er Table (C2 n Remarks) ches): ches):	Imagery e Surfac 2)	(B7) e (B8) Wetl	Secondary Ir Water-st Drainage Oxidized Presence Salt Dep Stunted Geomory Shallow Microtop FAC-Net	adicators (2 or more required) ained Leaves (B9) e Patterns (B10) I Rhizospheres along Living Roots (C3 e of Reduced Iron (C4) osits (C5) or Stressed Plants (D1) phic Position (D2) Aquitard (D3) ographic Relief (D4) utral Test (D5)
POROLOGY Vetland Hydrology Indicater (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Surface Water Present? Veter Table Present? Includes capillary fringe)	ators: e indicator is suffice 2) Yes N Yes N	cient) I nundation Visible Sparsely Vegeta Marl Deposits (B Hydrogen Sulfide Dry-Season Wat Other (Explain in	e on Aerial I ted Concave (15) e Odor (C1) er Table (C2 n Remarks) ches): ches):	Imagery e Surfac 2)	(B7) e (B8) Wetl	Secondary Ir Water-st Drainage Oxidized Presence Salt Dep Stunted Geomory Shallow Microtop FAC-Net	adicators (2 or more required) ained Leaves (B9) e Patterns (B10) I Rhizospheres along Living Roots (C3 e of Reduced Iron (C4) osits (C5) or Stressed Plants (D1) phic Position (D2) Aquitard (D3) ographic Relief (D4) utral Test (D5)
POROLOGY Vetland Hydrology Indication Present? Augal Mat or Crust (B4) Iron Deposits (B5) Surface Soil Cracks (Bield Observations: urface Water Present? Vater Table Present? aturation Present? accurate Recorded Data (see Preser Pres	notes margina ators: e indicator is suffice	cient) Inundation Visibl Sparsely Vegeta Marl Deposits (B Hydrogen Sulfide Dry-Season Wat Other (Explain in	e on Aerial I ted Concave (15) e Odor (C1) er Table (C2 n Remarks) ches): ches): ches): ches): 3	Imagery e Surfac 2)	(B7) e (B8) Wetl	Secondary Ir Water-st Drainage Oxidized Presence Salt Dep Stunted Geomory Shallow Microtop FAC-Net	adicators (2 or more required) ained Leaves (B9) e Patterns (B10) I Rhizospheres along Living Roots (C3 e of Reduced Iron (C4) osits (C5) or Stressed Plants (D1) phic Position (D2) Aquitard (D3) ographic Relief (D4) utral Test (D5) by Present? Yes No

US Army Corps of Engineers Alaska Version 2.**E-71**

Project/Site: Seward Airport	E	Borough/	City: Kena	ai Peninsula	_ Sampling Date: _	9/30/2016
Applicant/Owner: DOT&PF					_ Sampling Point:	SW08
Investigator(s): Mark Boydston / Drew Vonlindern	L	andform	n (hillside, terra	ace, hummocks, etc.):	floodplain	
Local relief (concave, convex, none):	9	Slope (%):			
Subregion: Lat: _	60.133	316	Lon	-149.42447	Datum:W	GS 1984
Soil Map Unit Name:						
Are climatic / hydrologic conditions on the site typical for this t						_
Are Vegetation, Soil, or Hydrology sig	-					No.
Are Vegetation, Soil, or Hydrology na						
SUMMARY OF FINDINGS – Attach site map sho	wing sai	mpling	point locati	ons, transects, impo	ortant features,	etc.
Hydrophytic Vegetation Present? Yes No	V -					
Hydric Soil Present? Yes No			the Sampled			
Wetland Hydrology Present? Yes No		WI	ithin a Wetlar	1d? Yes	s No	<u> </u>
Remarks:						
VEGETATION – Use scientific names of plants.	l ist all s	necies	in the nlot			
<u></u>		<u> </u>	nt Indicator	Dominance Test wor	kshoot:	
			s? Status	Number of Dominant S		
1. Picea sitchensis	7		FAC	That Are OBL, FACW,		(A)
2				Total Number of Domi	nant	
3				Species Across All Str		(B)
4				Percent of Dominant S	Procios	
Total Cover:				That Are OBL, FACW,		(A/B)
50% of total cover:	20% o	f total co	ver:	Prevalence Index wo	rksheet:	
Sapling/Shrub Stratum	C.F.		EAC	Total % Cover of:	Multiply	y by:
Alnus viridis (aka crispus) Sambucus racemosa				OBL species	x 1 =	
				FACW species	x 2 =	
3				FAC species 72		
5				FACU species 35		
				UPL species		
Total Cover:				Column Totals: 10	7 (A) <u>356</u>	<u>i</u> (B)
50% of total cover:		total cov	ver:	Prevalence Index	x = B/A =3.3	
Herb Stratum				Hydrophytic Vegetati		
Deschampsia caespitosa				Dominance Test is		
2				Prevalence Index		
3				Morphological Ada	aptations ¹ (Provide	supporting
4					ks or on a separate	•
5				Problematic Hydro	ophytic Vegetation	(Explain)
6				¹ Indicators of hydric so	oil and wetland hvd	rology must
7				be present unless distr	urbed or problemati	ic.
8 9						
10						
Total Cover:						
50% of total cover:			er.			
Plot size (radius, or length x width)				Hydrophytic Vegetation		-
% Cover of Wetland Bryophytes Total Cove (Where applicable)				Present? Ye	es No <u> </u>	
Remarks:				1		

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SOIL Sampling Point: SW08

		•	tn needed to docur			or commr	m the absence of	indicators.)
Depth (inches)	Matrix Color (moist)	%	Color (moist)	x Features %	Type ¹	Loc²	Texture	Remarks
(inches)	Color (moist)		Color (moist)		туре	LUC	Texture	Remains
							<u> </u>	
				· ——				
							 	
							- <u> </u>	
¹ T 0-0	tunting D-D		Deduced Metric Co			4 04 0	21	ion. Di -Dono Linino, M-Matrix
Hydric Soil I		epietion, Rivi=	Reduced Matrix, CS Indicators for F				erains. Locai	tion: PL=Pore Lining, M=Matrix.
-						30115 .	Alaska C	Naved With aut I live EV as Dadden
	or Histel (A1)		Alaska Cold	_				Sleyed Without Hue 5Y or Redder
	pipedon (A2)		Alaska Alpi					ying Layer
	n Sulfide (A4)		Alaska Red	ox With 2.	oy Hue		Other (E	xplain in Remarks)
	ark Surface (A12)		3					
	Gleyed (A13)							of wetland hydrology,
	Redox (A14)			•			st be present unle	ss disturbed or problematic.
	Gleyed Pores (A15	•	⁴Give details of	color chan	ge in Rem	narks.		
Restrictive L	ayer (if present)	•						
Type:								
Depth (inc	ches):						Hydric Soil P	resent? Yes No
Remarks:							•	
Unco	nsolidated sa	nd - no hyd	lric soil indicator	s				
0	moonaatoa oa			•				
HYDROLO	GY							
Wetland Hyd	drology Indicator	s:					Secondary India	cators (2 or more required)
Primary Indic	ators (any one inc	dicator is suffi	cient)				Water-stain	ed Leaves (B9)
Surface			Inundation Visib	e on Aeria	l Imagery	(B7)		atterns (B10)
	ter Table (A2)	-	Sparsely Vegeta				=	hizospheres along Living Roots (C3)
Saturation		_			ve Suriac	e (D0)		f Reduced Iron (C4)
	, ,	_	Marl Deposits (E		`		· · · · · · · · · · · · · · · · · · ·	· ,
	arks (B1)	_	Hydrogen Sulfid				Salt Depos	
	nt Deposits (B2)	_	Dry-Season Wat					Stressed Plants (D1)
	posits (B3)	=	Other (Explain ir	i Remarks,)			c Position (D2)
	t or Crust (B4)						Shallow Aq	
	osits (B5)							raphic Relief (D4)
	Soil Cracks (B6)						FAC-Neutra	al Test (D5)
Field Observ	vations:							
Surface Water	er Present?		No Depth (in			_		
Water Table	Present?	Yes	No Depth (in	ches):				
Saturation Pr	resent?	Yes V	No Depth (in	ches):	10	Wet	tland Hydrology I	Present? Yes No
(includes cap				-14				
Describe Red	corded Data (Strea	ıın gauge, mo	onitoring well, aerial	priotos, pre	vious ins	pections)	i, ir avallable:	
Remarks:		_						
;	Saturation fron	n recent he	avy rain					

US Army Corps of Engineers Alaska Version 2.**6-73**

Project/Site: Seward Airport	Borou	igh/City: Kena	ai Peninsula	Sampling Date: 9/30/2016
Applicant/Owner: DOT&PF				Sampling Point: SW09
Investigator(s): Mark Boydston / Drew Vonlindern	Landf	orm (hillside, terra	ace, hummocks, etc.):	floodplain
Local relief (concave, convex, none):	Slope	(%):		•
Subregion: Lat:	60.13305	Lon	g:149.42084	Datum: WGS 1984
Soil Map Unit Name:				
Are climatic / hydrologic conditions on the site typical for this				
Are Vegetation, Soil, or Hydrology signature.	-			
Are Vegetation, Soil, or Hydrology na				
SUMMARY OF FINDINGS – Attach site map sho				
	gp		,	
		Is the Sampled	Area	-
		within a Wetlan		No
Remarks:				
VEGETATION — Use scientific names of plants	List all speci	ice in the plot		
VEGETATION – Use scientific names of plants.	<u> </u>	<u> </u>	Daminana Taat wada	-bd-
Tree Stratum		ninant Indicator ecies? Status	Dominance Test works Number of Dominant Sp	
1				or FAC: (A)
2.			Total Number of Domina	ont
3			Species Across All Stra	
4			Percent of Dominant Sp	nocios
Total Cover:				or FAC: (A/B)
50% of total cover:	20% of tota	l cover:	Prevalence Index work	ksheet:
Sapling/Shrub Stratum Alous viridis (aka crisous)	05	ΕΛC	Total % Cover of:	Multiply by:
1. Alnus viridis (aka crispus)				x 1 =
Salix pulchra Salix alaxensis	. •		FACW species 28	x 2 = <u>56</u>
3. Salix alaxensis 4. Equisetum pratense		FACW	FAC species <u>25</u>	x 3 = <u>75</u>
5			FACU species	x 4 =
			· ·	x 5 =
Total Cover:			Column Totals: <u>53</u>	(A) <u>131</u> (B)
50% of total cover:		cover:	Prevalence Index	= B/A =2.5
Herb Stratum			Hydrophytic Vegetation	
Deschampsia caespitosa			Dominance Test is	
2			Prevalence Index is	
3			Morphological Adap	ptations ¹ (Provide supporting
4				s or on a separate sheet)
5			Problematic Hydrop	phytic Vegetation ¹ (Explain)
6			¹ Indicators of hydric soi	il and wetland hydrology must
7			be present unless distu	
8				
9				
10Total Cover:		·		
50% of total cover:		cover.		
Plot size (radius, or length x width)			Hydrophytic	
% Cover of Wetland Bryophytes Total Cov			Vegetation Present? Yes	s No
(Where applicable)				
Remarks:				
DOT&PF airport maintenance regularly	clears this ar	ea for the Run	way Safety Area and	d has planted native
revegetation grasses				

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SOIL Sampling Point: SW09

		to the dep	th needed to docur			or confirr	n the absence	of indicators.)
Depth (inches)	Matrix Color (moist)	%	Redo Color (moist)	x Features	Type ¹	Loc ²	Texture	Remarks
(inches)	Color (moist)		Color (moist)		Type	LOC	rexture	Remarks
	-							
						-		
	-							
				- ——				
¹ Type: C=C	ncentration, D=De	pletion, RM=	Reduced Matrix, CS	S=Covered	or Coate	ed Sand G	rains. ² Loc	cation: PL=Pore Lining, M=Matrix.
Hydric Soil	ndicators:		Indicators for F	Problemat	ic Hydric	: Soils³:		
Histosol	or Histel (A1)		Alaska Colo	or Change	$(TA4)^4$		Alaska	Gleyed Without Hue 5Y or Redder
Histic Ep	pipedon (A2)		Alaska Alpii	ne Swales	(TA5)		Unde	erlying Layer
Hydroge	n Sulfide (A4)		Alaska Red	ox With 2.	5Y Hue		Other	(Explain in Remarks)
	ark Surface (A12)		_					,
_	Gleyed (A13)		³ One indicator of	f hydrophy	tic veget	ation one	primary indicate	or of wetland hydrology,
·	Redox (A14)				_			lless disturbed or problematic.
	Gleyed Pores (A15)		⁴ Give details of				n be present an	ness distarbed or problematio.
	-		Oive details of	color criari	ge iii ixei	iiaiks.		
	_ayer (if present):							
Type:								_/
Depth (in	ches):						Hydric Soil	Present? Yes No
Remarks:								
HYDROLO	GY							
Wetland Hy	drology Indicators	:					Secondary In	dicators (2 or more required)
_	ators (any one indi		cient)				-	ained Leaves (B9)
-	Water (A1)	00.001.0000	Inundation Visible	o on Aoria	l Imagon	, (D7)		Patterns (B10)
	, ,	-	 -			` '	_	
	ter Table (A2)	_	Sparsely Vegeta		ive Suriac	<i>:</i> е (во)		Rhizospheres along Living Roots (C3)
Saturation		-	Marl Deposits (B	,	4.			e of Reduced Iron (C4)
	arks (B1)	_	Hydrogen Sulfide				Salt Depo	
	nt Deposits (B2)	_	Dry-Season Wat					or Stressed Plants (D1)
Drift Dep	oosits (B3)	_	Other (Explain in	n Remarks)		Geomorp	phic Position (D2)
Algal Ma	it or Crust (B4)						Shallow A	Aquitard (D3)
Iron Dep	osits (B5)						Microtopo	ographic Relief (D4)
Surface	Soil Cracks (B6)						FAC-Neu	tral Test (D5)
Field Obser	vations:							
Surface Wat	er Present?	Yes _ I	No Depth (in	ches):				
Water Table				ches):1	0	_		
						— \\		No.
Saturation P (includes car		Yes I	No Depth (in	ches): S	unace	wet	iana Hyarolog	y Present? Yes No No
Describe Re	corded Data (strear	n gauge, mo	nitoring well, aerial	photos, pr	evious ins	spections).	if available:	
	•	0 0 7	,			. ,		
Domarka:								
Remarks:								

US Army Corps of Engineers Alaska Version 2.**£-75**

Project/Site: Seward Airport	Boro	ugh/City: K	enai Peninsula	_ Sampling Date:	9/30/2016
Applicant/Owner: DOT&PF				_ Sampling Point: _	SW10
Investigator(s): Mark Boydston / Drew Vonlinder	Land	dform (hillside, t	terrace, hummocks, etc.): _	floodplain	
Local relief (concave, convex, none):					
Subregion: Lat: _	60.13548	\	Long: -149.42242	Datum: Wo	GS 1984
Soil Map Unit Name:					
Are climatic / hydrologic conditions on the site typical for this t					
Are Vegetation, Soil, or Hydrology sig					No
Are Vegetation, Soil, or Hydrology nat					
SUMMARY OF FINDINGS – Attach site map sho	wing sampl	ling point loc	cations, transects, imp	ortant features, e	etc.
Hydrophytic Vegetation Present? Yes No					
		Is the Samp		s V No	
		within a We	tland? Yes	s No	
Remarks:					
VEGETATION – Use scientific names of plants.	l ist all spec	ries in the nl	lot		
<u> </u>	·	•		lea ha a ti	
		minant Indicate becies? Status			
1			That Are OBL, FACW,		(A)
2			Total Number of Domi	nant	
3			Species Across All Str		(B)
4			Percent of Dominant S	Propins	
Total Cover:			That Are OBL, FACW,		(A/B)
50% of total cover:	20% of tota	al cover:	Prevalence Index wo	rksheet:	
Sapling/Shrub Stratum			Total % Cover of:	Multiply	by:
1			OBL species	x 1 =	
2			FACW species		
3			FAC species 3	$\frac{5}{x} = \frac{10}{10}$)5
4			FACU species	<u>15</u> x 4 = <u>6</u>	0
			UPL species		
Total Cover:			Column Totals: 6	5 (A) <u>1</u>	<u>95 </u> (B)
50% of total cover:		ıl cover:	Prevalence Inde	x = B/A = 3.0	
Herb Stratum			Hydrophytic Vegetat	<u> </u>	
1. Poa alpina			Dominance Test is		
2. Geum macrophyllum	10	FA(Prevalence Index		
3Achillea millefolium			Mawabalawiaal Ad	aptations ¹ (Provide s	upporting
			U data in Remark	ks or on a separate s	sheet)
5. Salix planifolia subsp pluchra				ophytic Vegetation¹ (Explain)
6			 Indicators of hydric se	oil and wetland hydro	ology must
7			be present unless dist		
8					
9			—		
10 Total Cover:			_		
50% of total cover:		al cover:			
Plot size (radius, or length x width)			Hydrophytic	-	
% Cover of Wetland Bryophytes Total Cove			. 3	es <u> </u>	
(Where applicable)	, , , , ,				
Remarks: Runway safety area cleared. Obvious	areas of PS	SS1B remair	n. Weedy invasives do	minate -	
, ,			•		

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SOIL Sampling Point: _____

Depth _	Matrix	0/	Redo	0.4	T 1	12	T-104	Daws - de-
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
		·						
		· ——						
			D			10 10	. 21	The Black of the B
		letion, RM=	Reduced Matrix, CS Indicators for F				rains. Loc	ation: PL=Pore Lining, M=Matrix.
ydric Soil In						Solls :		a
	r Histel (A1)		Alaska Colo	•	. ,			Gleyed Without Hue 5Y or Redder
	pedon (A2)		Alaska Alpi					rlying Layer
	Sulfide (A4)		Alaska Red	lox With 2.5	5Y Hue		Other (Explain in Remarks)
	k Surface (A12)							
Alaska Gle	eyed (A13)		³ One indicator of	of hydrophy	tic vegeta	ation, one	primary indicate	or of wetland hydrology,
Alaska Re	edox (A14)		and an appro	priate land	scape po	sition mus	st be present un	less disturbed or problematic.
Alaska Gle	eyed Pores (A15)		⁴ Give details of	color chan	ge in Ren	narks.		
estrictive La	yer (if present):							
Туре:								-
Depth (inch	nes):						Hydric Soil	Present? Yes V No
	nes):						Hydric Soil	Present? Yes No
	nes):						Hydric Soil	Present? Yes V No
Remarks:							Hydric Soil	Present? Yes V No
Remarks:								Present? Yes V No
Remarks: YDROLOG Vetland Hydr	SΥ		cient)				Secondary Inc	dicators (2 or more required)
Remarks: YDROLOG Vetland Hydr Primary Indica	i Y rology Indicators: tors (any one indic		•	le on Aeria	Llmagery	(B7)	Secondary Inc. Water-sta	dicators (2 or more required) ined Leaves (B9)
YDROLOG Vetland Hydr Primary Indicat Surface W	ology Indicators: tors (any one indic dater (A1)		Inundation Visib		,	` '	Secondary Inc Water-sta Drainage	dicators (2 or more required) ined Leaves (B9) Patterns (B10)
YDROLOG Vetland Hydr Primary Indica Surface W	ology Indicators: tors (any one indicent (A1) er Table (A2)		Inundation Visib Sparsely Vegeta	ated Conca	,	` '	Secondary Inc Water-sta Drainage Oxidized	dicators (2 or more required) ined Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3)
YDROLOG Vetland Hydr Timary Indica Surface W High Wate Saturation	rology Indicators: tors (any one indic /ater (A1) er Table (A2)		Inundation Visib Sparsely Vegeta Marl Deposits (E	ated Conca 315)	ve Surfac	` '	Secondary Inc Water-sta Drainage Oxidized Presence	dicators (2 or more required) ined Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3) of Reduced Iron (C4)
YDROLOG Vetland Hydr rimary Indica Surface W High Wate Saturation Water Mai	rology Indicators: tors (any one indic /ater (A1) er Table (A2) i (A3) rks (B1)		Inundation Visib Sparsely Vegeta Marl Deposits (E Hydrogen Sulfid	ated Conca 315) e Odor (C1	ve Surfac	` '	Secondary Inc Water-sta Drainage Oxidized Presence Salt Depo	dicators (2 or more required) ined Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3) of Reduced Iron (C4) osits (C5)
YDROLOG Vetland Hydr Primary Indicat Surface W High Wate Saturation Water Mai Sediment	tors (any one indic /ater (A1) er Table (A2) in (A3) rks (B1) Deposits (B2)		Inundation Visib Sparsely Vegeta Marl Deposits (E Hydrogen Sulfid Dry-Season Wa	ated Conca 315) e Odor (C1 ter Table (0	ve Surfac	` '	Secondary Inc Water-sta Drainage Oxidized Presence Salt Depo	dicators (2 or more required) ined Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3) of Reduced Iron (C4) esits (C5) or Stressed Plants (D1)
YDROLOG Vetland Hydr Surface W High Wate Saturation Water Mai Sediment Drift Depo	rology Indicators: tors (any one indicented (A1) er Table (A2) a (A3) rks (B1) Deposits (B2) esits (B3)		Inundation Visib Sparsely Vegeta Marl Deposits (E Hydrogen Sulfid	ated Conca 315) e Odor (C1 ter Table (0	ve Surfac	` '	Secondary Inc Water-sta Drainage Oxidized Presence Salt Depo Stunted o Geomorp	dicators (2 or more required) ined Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3) of Reduced Iron (C4) osits (C5) or Stressed Plants (D1) hic Position (D2)
YDROLOG Vetland Hydr Surface W High Water Saturation Water Man Sediment Drift Depo Algal Mat	rology Indicators: tors (any one indicented (A1) er Table (A2) i (A3) rks (B1) Deposits (B2) isits (B3) or Crust (B4)		Inundation Visib Sparsely Vegeta Marl Deposits (E Hydrogen Sulfid Dry-Season Wa	ated Conca 315) e Odor (C1 ter Table (0	ve Surfac	` '	Secondary Inc Water-sta Drainage Oxidized Presence Salt Depo Stunted o Geomorp Shallow A	dicators (2 or more required) ined Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3) of Reduced Iron (C4) osits (C5) or Stressed Plants (D1) hic Position (D2) equitard (D3)
YDROLOG Vetland Hydr Surface W High Wate Saturation Water Mai Sediment Drift Depo Algal Mate Iron Depos	tors (any one indicators: tors (any one indicators: for (A1) or Table (A2) or (A3) or (B1) Deposits (B2) or Crust (B4) sits (B5)		Inundation Visib Sparsely Vegeta Marl Deposits (E Hydrogen Sulfid Dry-Season Wa	ated Conca 315) e Odor (C1 ter Table (0	ve Surfac	` '	Secondary Inc Water-sta Drainage Oxidized Presence Salt Depo Stunted o Geomorp Shallow A Microtopo	dicators (2 or more required) ined Leaves (B9) Patterns (B10) Rhizospheres along Living Roots (C3) of Reduced Iron (C4) sits (C5) or Stressed Plants (D1) hic Position (D2) equitard (D3) ographic Relief (D4)
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