

Detailed Project Description

Hooper Bay Airport Improvements

Project No. 57419

The airport improvements are divided into two phases: Phase I would improve the existing facilities and Phase II would extend the improved runway to meet FAA standards for the Beech 1900. Three material source options are also being considered for the proposed project and one or a combination of the three would be selected after the Environmental Assessment is complete. Changes to the proposed project from the scope presented in previous consultation are highlighted in **bold** text.

Proposed work for Phase I would include:

- Rehabilitating the existing 3,300 foot runway by removing the existing pavement, raising the grade and resurfacing the runway
- Providing additional erosion control by armoring the north end of the runway sheet pile wall
- Relocating and expanding the apron to accommodate lease lots, one of which will be used by DOT&PF Maintenance and Operations (M&O)
- Rehabilitating and extending the taxiway to the new apron
- Reconstructing the existing Airport Access Road
- Relocating utilities to the new apron
- **Replace underground utility line with overhead utility poles running from the city to the airport along Airport Access Road**
- Modifying existing navigational aids
 - Replace and relocate the existing segmented circle with a lighted wind cone
 - Provide an unlighted supplemental wind cone
 - Replace existing lighting on the runway and taxiway
 - Install Precision Approach Path Indicator (PAPIs) lights
 - Install conduit and pads for future REILs
 - Adjust height of Omni-directional Approach Lighting System (ODALS)
- Constructing a new snow removal equipment building (SREB) with a rotating beacon on the new M&O lot and possibly demolish the existing SREB
- Improving drainage as needed

Phase II is would be completed once the Area Transportation Plan is updated. Work is expected to include:

- Extending the runway to 4,500 feet long
- Constructing a new beach access road around the south end of the extended runway
- Modifying navigational aids as necessary

Equipment and supplies would be barged to one of two barge landings. The primary barge landing is located on the end of the Nuok Spit and would be used the majority of the time. Supplies and equipment would be staged on a previously disturbed area on the end of the spit before being transported up the beach to the project area by truck. Equipment and supplies would be staged on an old material site located on the south west corner of the existing runway. The

secondary barge landing, on the coast at the south end of the existing runway, would be utilized in the right weather and tide conditions to deposit equipment and supplies directly into the project area.

Airport Material Source (Alternative A)

The airport material source option would take place within the airport property, owned by DOT&PF. Borrow material would be excavated from a material source located south of the existing runway, within the airport property boundary. There is an existing beach access road from the south end of the runway which connects the airport, beach, and an old material source. Material would be excavated from the new material source area during the summer and stockpiled within the proposed apron footprint. Material would be trucked from the material source to the project area on the beach access haul route. The on-site material is suitable for constructing the foundation of the runway, however it is not suitable for the runway surface. Surface course would be barged to the project in the same way as equipment and supplies and would be supplied from an existing, permitted material source.

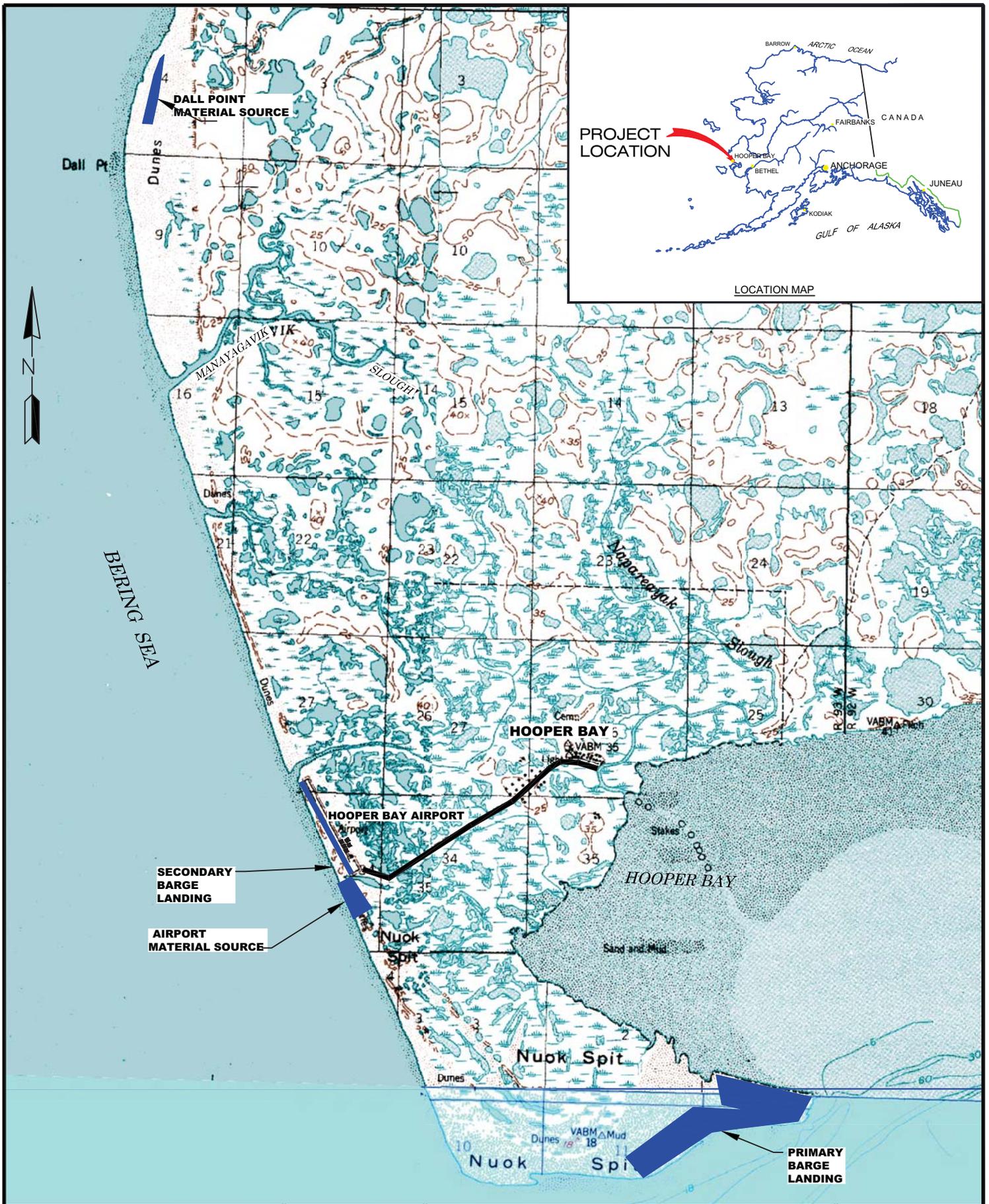
Dall Point Material Source (Alternative B)

For this option, borrow material would be sourced from Dall Point, six miles north of the airport on the coast. To utilize the material at Dall Point, a new borrow pit would be excavated and material would be trucked down the coastline during the winter **or barged down the coast to either the primary or secondary barge landing**. Material would then be stockpiled within the proposed project construction footprint. A material sales agreement would be required because the Sea Lion Corporation has surface and subsurface rights at Dall Point. No permanent acquisition of ROW would be required. Surface course would be barged to the project for the same reasons as Alternative A and in the same way as equipment and supplies.

Barging in Material (Alternative C)

The third option is to barge all material, borrow and surface course, from an established material site outside the Hooper Bay area. The material site would be selected by the contractor and would be required to have all the proper permits, clearances and FAA environmental requirements as necessary. Material would be barged in with the equipment and supplies to the primary or secondary barge landing, hauled by truck on the designated haul routes, and stockpiled within the project area.

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STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES

PRELIMINARY DESIGN AND
 ENVIRONMENTAL GROUP

SCALE: NTS

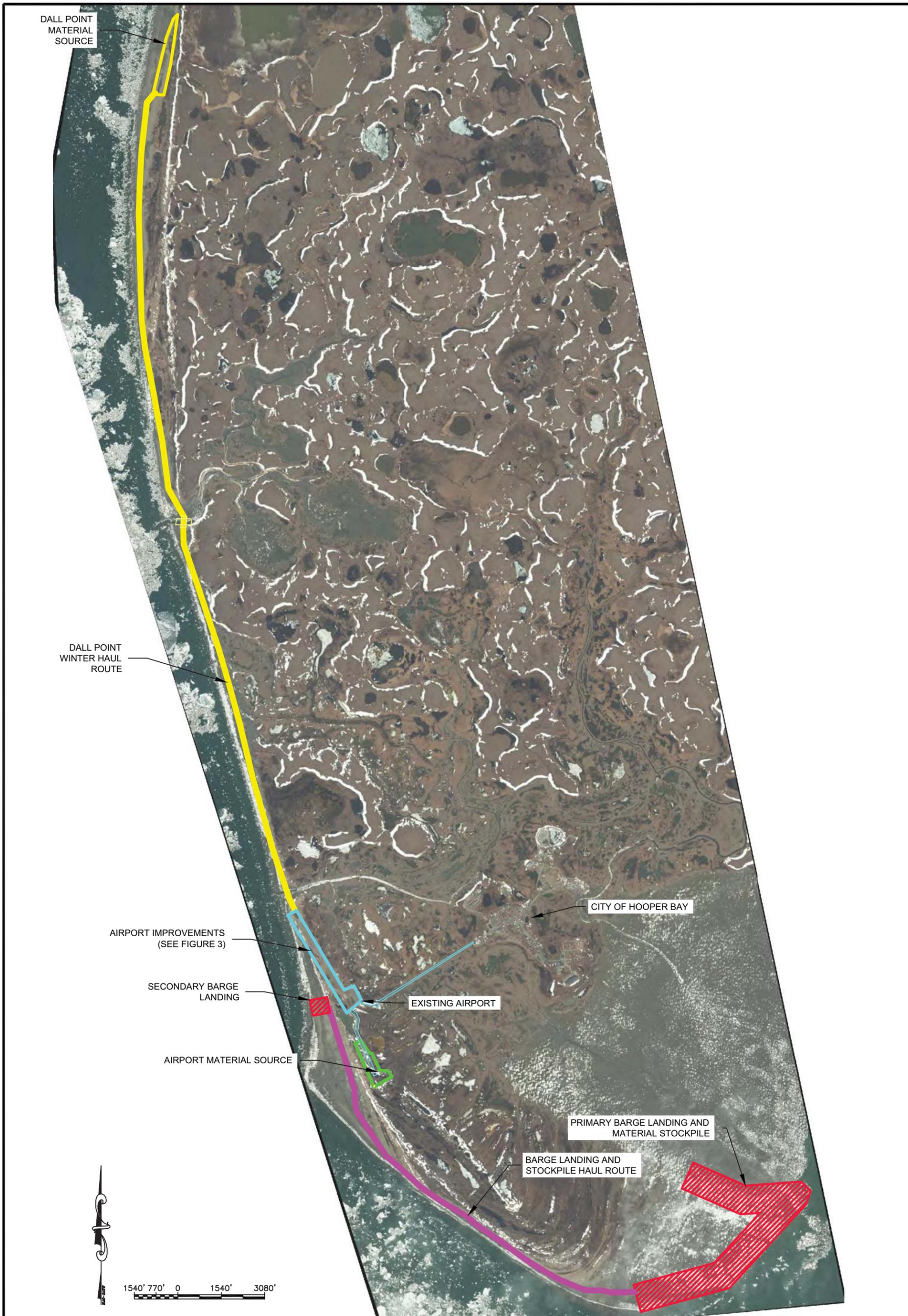
DATE: 6/19/2013

BY: T. STONE

HOOPER BAY
AIRPORT IMPROVEMENTS
 PROJECT NO. 57419
 LOCATION & VICINITY MAP
 HOOPER BAY, ALASKA

FIGURE 1
C-15

W:\Environmental\Environmental Project Dwg\57419 Hooper Bay\EA figures\57419 Fig 2 haul route rev1.dwg, 2/19/2014 2:44:20 PM, DWG To PDF.pc3



STATE OF ALASKA
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC FACILITIES

PRELIMINARY DESIGN AND
 ENVIRONMENTAL GROUP

SCALE: SEE GRAPHIC

DATE: 1/14/2014

BY: T STONE

HOOPER BAY AIRPORT IMPROVEMENTS

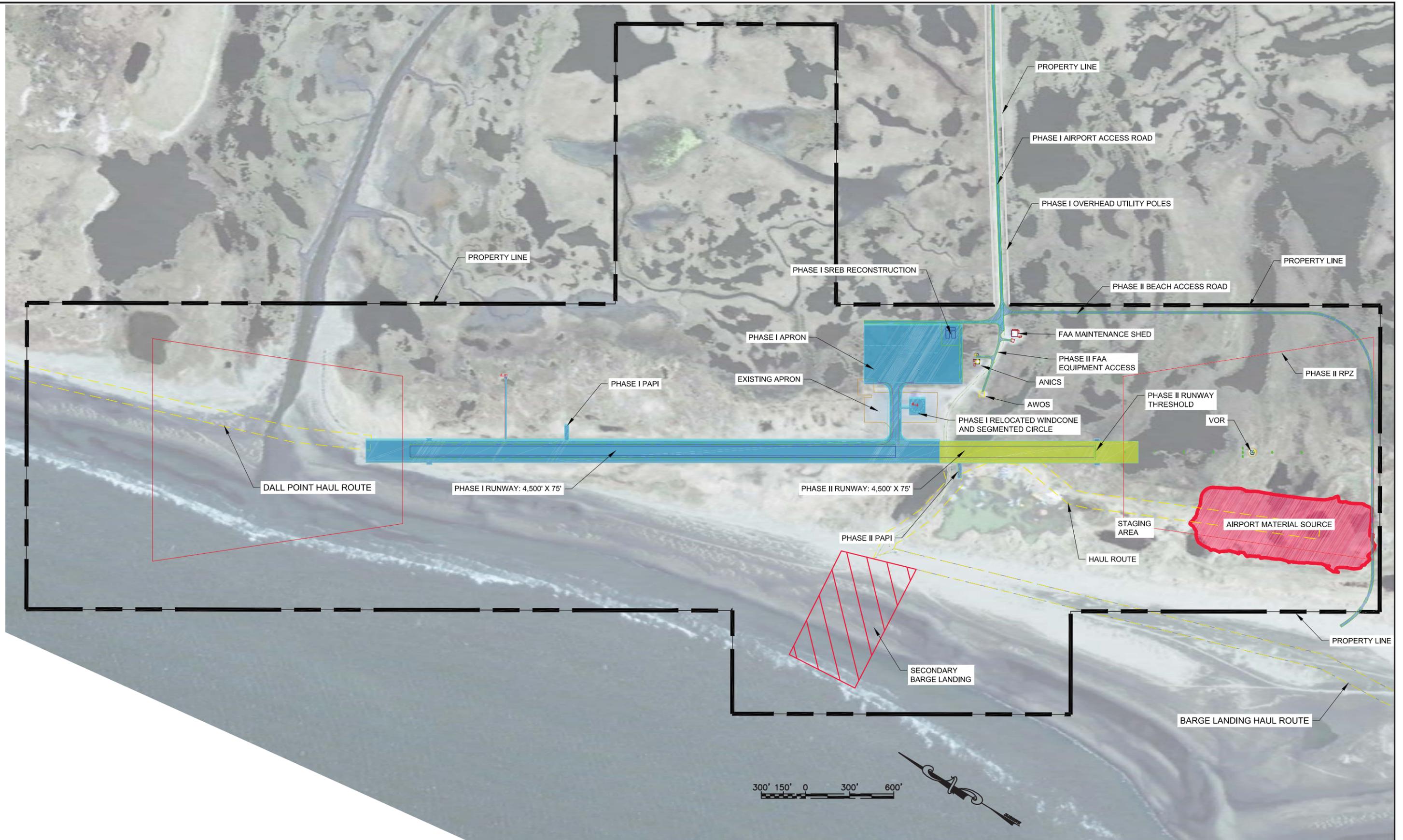
PROJECT NO. 57419

PROJECT OVERVIEW

HOOPER BAY, ALASKA

FIGURE 2

W:\Environmental\Environmental Project Dwg\57419 Hooper Bay\EA figures\57419 hooper bay fig 3 alternative a material site.dwg, 2/19/2014 4:29:25 PM, DWG To PDF.pc3



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

PRELIMINARY DESIGN AND
ENVIRONMENTAL GROUP

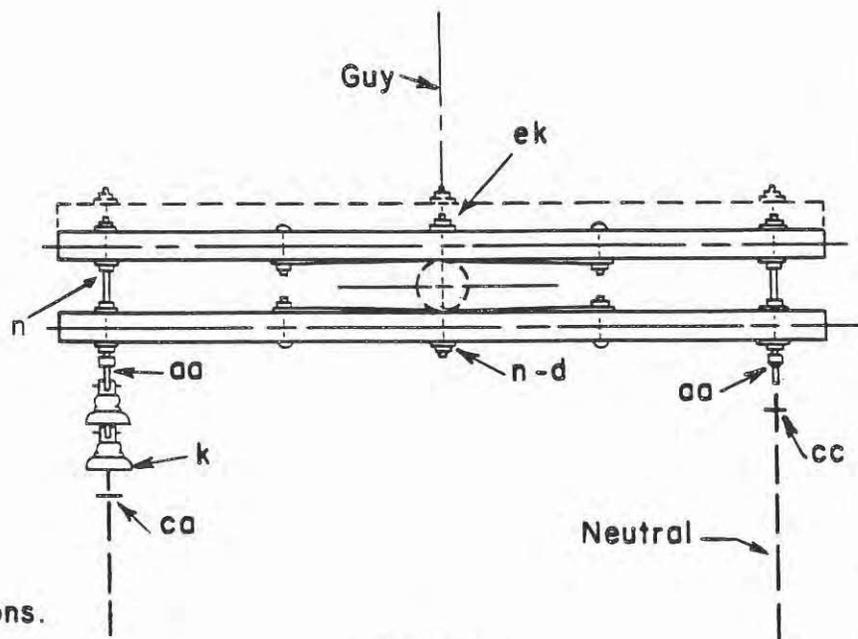
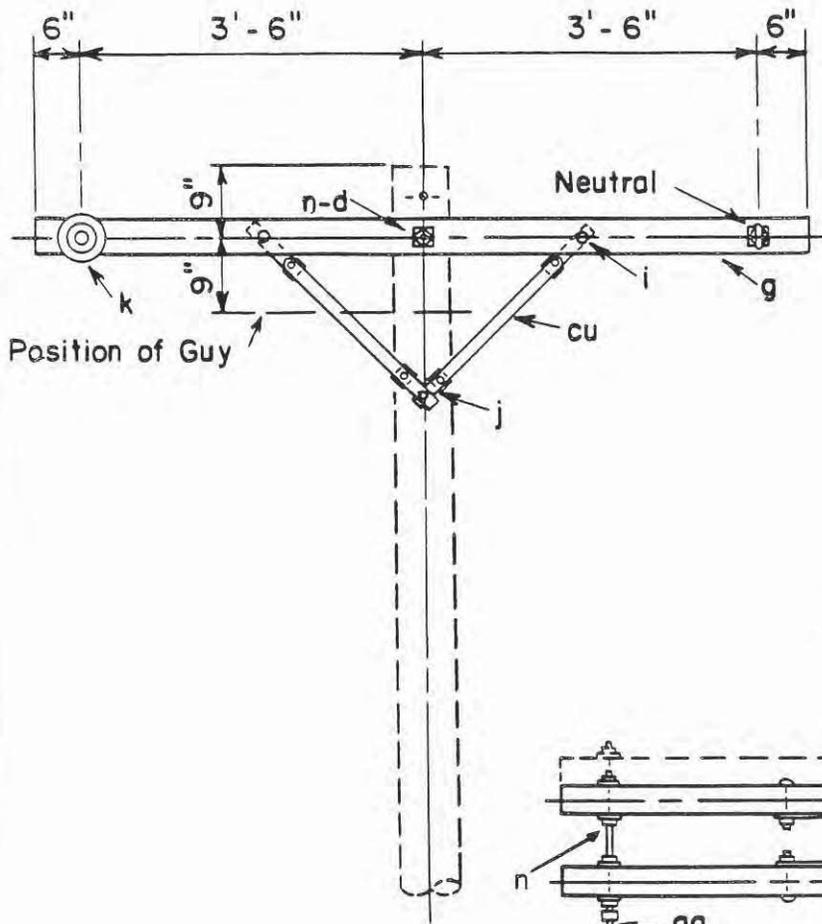
Scale: SEE GRAPHIC

Date: 6/19/2013

By: T.STONE

HOOPER BAY AIRPORT IMPROVEMENTS
PROJECT NO. 57419
PROJECT DETAILS ALTERNATIVE A MATERIAL SITE
HOOPER BAY, ALASKA

FIGURE 3
C-17



PLAN

Notes:

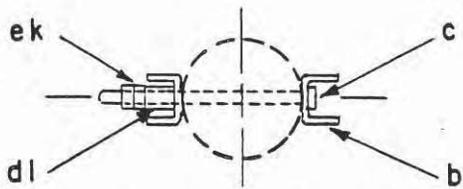
1. See drawing E5-1 for Crossarm loading limitations.
2. Designate as A7-1 for assembly with three crossarms.

ITEM NO.	MATERIAL	ITEM NO.	MATERIAL
d 10	Washer, 2 1/4" x 2 1/4" x 3/16", 13/16" hole	n 3	Bolt, double arming, 5/8" x req'd l'gth
g 2	Crossarm, 3 1/2" x 4 1/2" x 8' - 0"	aa 2	Nut, eye, 5/8"
cu 4	Brace, wood, 28"	ca 1	Deadend assembly, primary
i 4	Bolt, carriage, 3/8" x 4 1/2"	cc 1	Deadend assembly, neutral
j 2	Screw, lag, 1/2" x 4"	ek	Locknuts
k 2	Insulator, suspension		

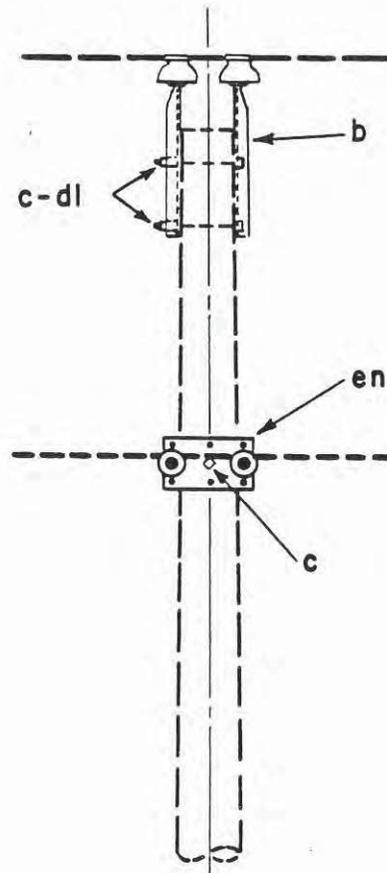
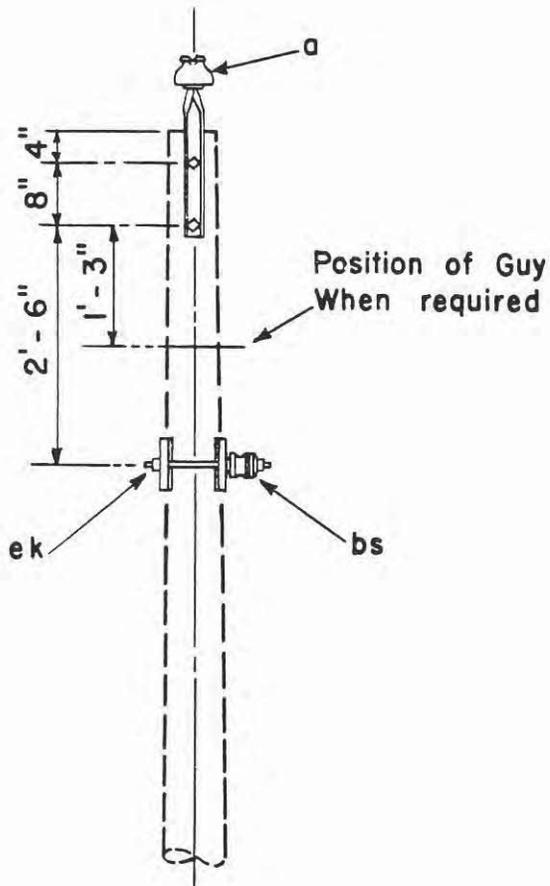
7.2/12.5 KV., 1-PHASE, CROSSARM CONSTRUCTION
DEADEND (SINGLE)

Jan 1, 1962

A7,A7-F-18



POLE TOP PIN ASSEMBLY



ITEM NO.	MATERIAL	ITEM NO.	MATERIAL
a	2 Insulator, pin type	ek	Locknuts
b	2 Pin, pole top, 20"	en	2 Plate, double support
c	3 Bolt, machine, 5/8" x req'd. length		
bs	2 Bolt, single upset, insulated		
dl	2 Pipe spacer, 3/4" dia. x 1 1/2"		

7.2/12.5 KV. PRIMARY, I-PHASE, 0° TO 5° ANGLE
DOUBLE PRIMARY AND NEUTRAL SUPPORTS

AI-2



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Anchorage Fish & Wildlife Field Office
605 West 4th Avenue, Room G-61
Anchorage, Alaska 99501-2249



In reply refer to: AFWFO

April 7, 2014

Emailed to:

TaraLyn Stone
DOT&PF
P.O. Box 196900
Anchorage, Alaska 99519- 6900

Re: Revised Hooper Bay Airport Improvement Project (*Consultation Number 2010-0191-R002*)

Dear Ms. Stone,

Thank you for your March 3, 2014, letter requesting concurrence with the determination that changes to the plan to improve the airport in Hooper Bay, Alaska, is not likely to adversely affect species protected by the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq., as amended; ESA). The airport improvement project proposed by the Alaska Department of Transportation and Public Facilities (DOT&PF), in cooperation with the Federal Aviation Administration (FAA) include installation of a 4,500-foot long above ground power line and the barging of borrow material to Hooper Bay. The U.S. Fish and Wildlife Service (Service) has expressed our concerns about these proposed changes and their potential risk to listed species (see Administrative Record below). Our comments are provided in accordance with Section 7 of the ESA.

Administrative Record

- March 3, 2014:
 - I received your email request for concurrence with the determination that modifications to the action previously consulted on (consultation # 2010-0191-R001) were not likely to adversely affect listed species within the action area.
 - I notified you by email that I received your request, and alerted you of my concerns about the 4,500-foot long, overland power line newly proposed for this revised action.
- March 17, 2014: We spoke over the telephone and I further explained my concerns for spectacled eiders (*Somateria fischeri*), listed as threatened under the ESA, that are known to strike power lines. During that call you let me know you would take the information I had provided to engineers to see if they could design a conduit-ground-surface system for the proposed power line.
- April 4, 2014:
 - You notified me by telephone that the power line must be constructed above ground as described in your request for reinitiated consultation.
 - I spoke to Dr. Matthew Sexon, US Geological Survey, Alaska Science Center, who has gathered data on spectacled eider movements in Western Alaska using satellite tagging technology. According to Dr. Sexon, spectacled eiders generally move inland to nest from the offshore area they stage, but that movement may not be an exactly linear movement to the east.
 - I contacted you by telephone to alert you that the Service would be issuing a letter stating that we could not concur with your determination and recommending an observation study to better assess the movements of spectacled eiders along the proposed power line corridor.

Furthermore, I suggested the possibility that formal consultation under Section 7 of the ESA may be required.

Project Description

The proposed modifications to the planned upgrades the Hooper Bay airport include the installation of a 4,500-foot long power line with 30-foot tall poles spaced 150 feet apart. Additionally, proposed changes include barging material from Dall Point approximately 6 miles north along the beach, and/or from an unspecified location outside the Hooper Bay area.

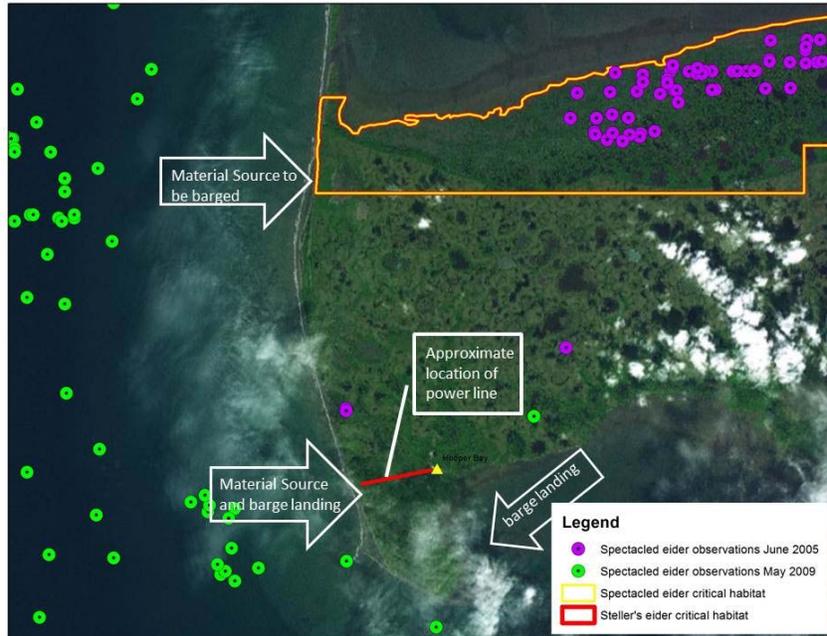


Figure 1. Spectacled eider observations and federally designated critical habitat for spectacled eiders in the action area for the proposed revised airport upgrade project in Hooper Bay, Alaska. Approximate route for the power line is shown in red.

ESA-Listed Species

Our records indicate the following species may be found in the action area: the Alaska breeding population of Steller’s eider (*Polysticta stelleri*, listed as threatened in 1997), and the spectacled eider (*Somateria fischeri*, listed as threatened in 1993). Federally designated critical habitat for nesting spectacled and Steller’s eiders is in the immediate vicinity of the proposed activities (Figure 1).

Both Steller’s and spectacled eiders are known to strike power lines, causing significant injury (Figure 2) and death (Service, unpublished data). They tend to fly very fast at an average elevation of 30 feet above ground level, making them highly susceptible to striking on land structures such as power lines.



Figure 2. This injured male spectacled eider had a broken and inverted lower mandible. It was found in this condition under a power line (Service, unpublished report).

TaraLyn Stone

Spectacled eiders stage off the coast between Hooper and Kokechik Bays during spring, and starting around the third week in April, move on shore (up to 4 kilometers inland) to establish their nest. It is during this time that the Service believes they would be highly susceptible to striking the proposed power line from Hooper Bay to the airport. Although their nesting density is expected to be lower around Hooper Bay compared to other areas (such as within the critical habitat near Kokechik Bay), they do fly inland around Hooper Bay (Day et al., 2005) and therefore, we believe they are at some (unknown) risk of striking power lines.

Because of this concern about the potential for bird strikes on the proposed power line, the Service cannot at this time concur with your determination that the proposed upgrades are not likely to adversely affect listed species. In order to ensure compliance with the ESA, we suggest one of the following courses of action be taken:

- (a) Bury the power line.
- (b) Monitor the entire proposed power line corridor to determine the probability of a spectacled eider striking the line during spring migration. Once the monitoring study is complete, DOT&PF and FAA should re-examine the project to determine whether it may affect any endangered or threatened species. If the possibility of an effect cannot be eliminated, the DOT&PF and FAA is required to initiate formal consultation with the Service.

If you have any questions regarding this letter, or if you would like recommendations for study design, please contact me at (907) 271-1467.

Sincerely,



Ellen W. Lance
Endangered Species Branch Chief

Stone, Taralyn R (DOT)

From: Lance, Ellen <ellen_lance@fws.gov>
Sent: Wednesday, April 16, 2014 2:43 PM
To: Stone, Taralyn R (DOT)
Cc: Elliott, Brian A (DOT); Bowland, Luke S (DOT); Hansen, Matthew H (DOT)
Subject: Re: Hooper Bay overhead pole design alteration (consultation 2010-0191-R002)
Attachments: 2010-0191_R002_Hooper Bay Airport Improvement_NLAA concurrence.pdf

Tara,

It's been great working with you on this consultation. Thanks for your efforts to conserve our listed species!

Ellen

Ellen W. Lance
Endangered Species Branch Chief
Anchorage Fish and Wildlife Field Office
605 West 4th Ave., Rm G61
Anchorage, Alaska 99501
(907) 271-1467

http://alaska.fws.gov/fisheries/fieldoffice/anchorage/endangered/program_overview.htm

On Fri, Apr 11, 2014 at 12:43 PM, Stone, Taralyn R (DOT) <taralyn.stone@alaska.gov> wrote:

Hi Ellen,

Thanks for your response to our finding and all the information provided. In light of the new information and the determination that further investigation would be required to proceed, DOT&PF is proposing to keep the utility lines buried along the Airport Access Road and install overhead poles only where needed to connect the existing utility line terminus to the new airport apron. This would be a substantial decrease in the number of poles necessary (see attached figure). To move forward with consultation on the attached design, would DOT&PF need to submit another letter or would verbal/additional email correspondence be sufficient?

DOT&PF feels that having this significantly smaller grouping of poles located in a developed area with airplane, road, and ATV traffic where there are other structures is not likely to adversely affect eiders or other species protected by the Endangered Species Act.

Thanks,

Tara

TARALYN
STONE



**Department of Transportation and Public
Facilities**

PD&E | ENVIRONMENTAL IMPACT ANALYST

OFFICE 907.269.0534 | FAX 907.243.6927

P.O. BOX 196900 | ANCHORAGE, AK 99519-6900

TARALYN.STONE@ALASKA.GOV |

DOT.ALASKA.GOV

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
Anchorage Fish & Wildlife Field Office
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Anchorage, Alaska 99501-2249



In reply refer to: AFWFO

April 16, 2014

Emailed to:

TaraLyn Stone
DOT&PF
P.O. Box 196900
Anchorage, Alaska 99519- 6900

Re: Revised Hooper Bay Airport Improvement Project (*Consultation Number* 2010-0191-R002)

Dear Ms. Stone,

Thank you for your April 11, 2014, email, notifying the U.S. Fish and Wildlife Service (Service) of a proposed amendment to the activities described in your March 3, 2014, letter regarding improvements to the airport in Hooper Bay, Alaska. In consultation with the Service, Alaska Department of Transportation and Public Facilities (DOT&PF), in cooperation with the Federal Aviation Administration (FAA), has modified the proposed activities to avoid potential harm to listed eiders in the vicinity of the airport. The Service acknowledges the considerable effort your agencies have made to respond to our concerns about this risk to listed species. This letter is in response to your request for concurrence with the determination that this project, as currently proposed, is not likely to adversely affect species protected by the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq., as amended; ESA).

The runway improvement project in Hooper Bay includes: repairing runway surface deterioration, increasing runway length, and improving accessibility. The runway would be extended approximately 1,200 feet and the apron relocated and expanded. The runway would be armored and a wall at the north end sheet piled. Lighting would be improved, but power transmission, which is currently underground, will not change except for an 800-foot long section needed to connect the existing utility line terminus to the new airport apron. This 800-foot long section, which will be located approximately 1,500 feet away from and parallel to the shoreline, will be above ground. Bird flight diverters will be installed on the power lines.

Access improvements would include: relocating the beach access road, raising the airport access road, and constructing a new maintenance and operations lot and snow removal equipment building. Three material sources are proposed: the existing material source just south of the airport, a new material source at Dall Point, and an off-site material source. Materials would be barged to landings in and around the airport property from Dall Point and/or from the off-site borrow source. All clearing would occur before eiders initiate nesting in May. A Storm Water Pollution Prevention Plan would be developed and implemented to protect water quality.

The Alaska breeding population of Steller's eider (*Polysticta stelleri*, listed as threatened in 1997) may nest in the vicinity of the proposed project, and the spectacled eider (*Somateria fischeri*, listed as threatened in 1993) has been documented in the area. Federally designated critical habitat (CH) for both eider species is in the immediate vicinity of the proposed activities.

Spectacled eiders stage off the coast between Hooper and Kokechik Bays during spring, and starting around the third week in April, move on shore (up to 4 kilometers inland) to establish their nest. Although their nesting

TaraLyn Stone

density is expected to be lower around Hooper Bay compared to other areas (such as within the critical habitat near Kokechik Bay), the birds fly inland around Hooper Bay (Day et al., 2005).

Both Steller's and spectacled eiders are known to strike power lines, causing significant injury and death (Service, unpublished data). They tend to fly very fast at an average elevation of 30 feet above ground level, making them highly susceptible to striking on land structures such as power lines. While the risk of eiders striking the 800-foot long stretch of new, above-ground power line exists, the probability this will occur will be lessened by the installation of bird flight diverters to increase visibility of the lines.

Exposure to spilled oil can harm listed eiders and the probability of fuel spills is expected to increase with increased barging activity to and from the material sources. Barges are expected to run between May and October. Eiders are expected to occur offshore of Hooper Bay in May, but when nesting is completed, they congregate in molting areas far from Hooper Bay. All barges would be required to carry a spill response kit and other measures would be implemented, including a Hazardous Material Control Plan, to mitigate any potential spills.

Because the risk of eiders striking an above-ground power line has been significantly reduced by maintaining buried lines along most of the power line corridor, and bird flight diverters will be installed on the 800-foot long stretch of new above-ground power line, the probability of harm due to the installation of the power line is low. Given the low temporal overlap between barge traffic and eiders in the marine environment near Hooper Bay, the probability that an accidental fuel spill will occur when eiders may be exposed to the petroleum hydrocarbons is very low. Taken together, the Service concurs with DOT&PF and FAA's determination that the proposed upgrades to the Hooper Bay airport are not likely to adversely affect listed species or their critical habitat. Therefore, requirements of section 7 of the ESA have been satisfied. However, if new information reveals project impacts that may affect listed species or CH in a manner not previously considered, if this action is subsequently modified in a manner which was not considered in this assessment, if one or more Steller's or spectacled eiders are found dead or injured under or near the new above-ground power line, or if a new species is listed or critical habitat is designated, section 7 consultation should be reinitiated.

This letter relates only to federally listed or candidate species and/or designated or proposed critical habitat under jurisdiction of the U.S. Fish and Wildlife Service. It does not address species under the jurisdiction of National Marine Fisheries Service, or other legislation or responsibilities under the Fish and Wildlife Coordination Act, Migratory Bird Treaty Act, Marine Mammal Protection Act, Clean Water Act, National Environmental Policy Act, or Bald and Golden Eagle Protection Act.

Thank you for your cooperation in meeting our joint responsibilities under the ESA. If you have any questions, please contact me at (907) 271-1467.

Sincerely,



Ellen W. Lance
Endangered Species Branch Chief

Literature Cited

Day RH, RM Burgess, PE Seiser. 2005. Movements of eiders and other birds near a proposed windfarm at Hooper Bay, Western Alaska, Spring 2004. Final Report prepared for Alaska Village Electric Cooperative, Inc. ABR, Inc – Environmental Research and Services, P.O. Box 80410, Fairbanks, Alaska.