

Hooper Bay Airport Improvements

Project Number: 57419

Location: Latitude 61.520585°N, Longitude -166.139534°W
Sections 17, 21, 22, 27, 28, 33, and 34, T 17 N, R. 93 W
Sections 2-4, 10, and 11 T 16N, R 94W
USGS Quad Map Hooper Bay C-4, Seward Meridian

Final Environmental Assessment And Finding of No Significant Impact: Phase I

June 2014



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Department of Transportation
Federal Aviation Administration

FINDING OF NO SIGNIFICANT IMPACT
Hooper Bay Airport Improvements – Phase I
DOT&PF Project No. 57419

Purpose and Need

The purpose of Phase I of the Hooper Bay Airport Improvements is to bring the airport up to current Federal Aviation Administration (FAA) design standards for airport safety so that it safely and efficiently accommodates the current air service requirements. The existing runway asphalt surface is severely deteriorated and about 600 feet of the surface at the center of the runway has been reduced to gravel. The surface runway deterioration limits the regular use of the airport by larger aircrafts. Other deficiencies that need addressed to meet FAA design standards for airport safety include:

- Relocating the apron which is too close to the existing runway
- Improving the lighting systems and navigation aids which are currently out of date

Requested Federal Action

The Federal action requested by the DOT&PF is FAA approval of the Airport Layout Plan and participation in funding of the proposed improvements using Airport Improvement Program grant funding.

Proposed Action

Phase I of the project, proposed for construction in fall 2014 or spring of 2015, would bring the airport up to current FAA design and safety standards and would repair the deterioration of the existing facilities. This would include:

- Rehabilitating the existing 3,300 ft 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 Airport Access Road and replacing/relocating underground utilities.
- Installing an approximately 800 foot long string of overhead utility poles running from near the existing SREB to the new SREB
- Modifying existing navigational aids
 - Replace and relocate the existing segmented circle and lighted wind cone
 - Provide an unlighted supplemental wind cone
 - Replace existing lighting on the runway and taxiway
 - Install Precision Approach Path Indicator (PAPI) lights
 - Install conduit and pads for future Runways End Identifier Lights (REILs)
- Constructing two-single bay snow removal equipment buildings (SREB) with a rotating beacon on the new M&O lot and possibly demolish the existing SREB
- Improving drainage as needed

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.

Reasonable Alternatives

Two alternatives, No-Build and Build Alternative, were evaluated in the Final EA for the proposed project.

The No-build Alternative would leave the existing airport in its current condition and provides a baseline against which to measure the other alternatives. Leaving the airport in its current condition would not meet the purpose of and need for the project. Annual interim maintenance activities to keep the airport open and operational would continue.

The Build Alternative would consist of two phases of airport improvements. Phase I (the Proposed Action) would bring the airport up to current FAA design safety standards by improving existing facilities and Phase II, if implemented, would extend the runway length and improve navigation aids to meet future capacity needs. To provide borrow material for both phases, three material source options were also considered and evaluated independently with the understanding that one or a combination of the three would be selected. Prior to implementation of Phase II the proposal would undergo environmental review as determined by the specifics of the project.

Other alternatives (Section 3.3 of the Final EA) were also considered but dismissed from further consideration. These alternatives included a potential material source on the airport property which was dropped from consideration after archeological resources were found in the area.

Impact Assessment

The Final EA analysis indicates that the Proposed Action would not have significant adverse effects on the resource categories listed in FAA Orders 1050.1B and 5050.4B. Minor impacts to fish resources and waters of the US would result from the permanent placement of fill material into wetlands and ponds. Details of the affected environment and the environmental consequences of each alternative are presented in Section 4 of the Final EA.

Mitigation and Environmental Commitments

Wetland Mitigation

Work within wetlands would result in the permanent placement of approximately 185,000 cubic yards of fill material on 25 acres of emergent tundra and 90,000 cubic yards of fill material on 4 acres of open water (ponds) under the jurisdiction of the US Army Corps of Engineers (USACE). The wetlands are not unique to the area and the proposed impacts are minor compared to the total area of wetlands in the project vicinity and the Yukon Delta. A section 404 Individual Permit will be obtained for impacts to Waters of the US from the proposed project.

The project was designed to avoid work within waters of the U.S. to the maximum extent practicable by:

- Selecting the least environmentally damaging alternative
- Utilizing the existing airport facilities where possible
- Grading side slopes at maximum practicable slope to minimize the project footprint

Compensation for unavoidable impacts on waters of the US shall be provided in accordance with USACE RGL ID No. 09-01, which requires a mitigation plan based on the functions and values of the affected wetlands, and compensatory mitigation for federally-funded projects. The wetland impacts would be compensated at a mitigation ratio of 1.5:1 for preservation because the wetlands were determined to be Category III, moderate to low functioning, and are not unique to the area.

Air Quality

- Airborne dust would be minimized by application of water, periodic sweeping and proper disposal of solid materials, and stabilization of all disturbed soils, entrances and exits. No vehicles, trucks, or heavy equipment would be allowed to unnecessarily idle and would be routinely maintained and serviced.

Construction

- Advance notice of construction and detours will be provided to airport users.
- A material Site Reclamation Plan would be prepared by the contractor. The reclamation plan would include commitments to return the area to pre-existing conditions and reestablishing beach grasses on areas not likely to be submerged.

Fish and Wildlife

- Overhead utility poles would be equipped with bird flight diverters to minimize the risk of eiders striking the poles and utility lines per consultation with the US Fish and Wildlife Services (USFWS)(Section 4.3.2 of the Final EA).
- No equipment or vehicles would be operated within any creeks and no fueling or maintenance would occur within a minimum of 100 feet of the creeks and associated wetlands. The work area would be isolated from the flowing water of the waterway to prevent fish from encountering turbid waters. Wetland and streambank vegetation would not be disturbed. Any disturbed areas would be revegetated with native species.
- Vegetation would not be cleared between May 5 and July 25 to avoid disturbing nesting birds and migratory waterfowl. If vegetation clearing is required, USFWS would be consulted prior to work.
- Embankment fill would be hauled during the winter months when the ground is frozen enough to support heavy equipment, avoiding and minimizing wildlife impacts.
- All in-water and over-water work would occur in accordance with the ADF&G Title 16 Fish Habitat Permit stipulations.
- DOT&PF will comply with all federal, state, and local laws and regulations regarding invasive species during construction of the proposed project.
- Soil stabilization materials, top soils, and seed mixes that are free from noxious weeds will be used. If these materials are not available, locally produced products will be used to minimize potential importation of new weed seed from outside Alaska.

- All disturbed areas outside the runway and other facility surfaces will be reseeded and vegetated with native species in accordance with the DNR Alaska Coastal Revegetation and Erosion Control Guide.

Hazardous Materials, Pollution Prevention, and Solid Waste

- The Construction Contractor will be required to prepare and implement a Hazardous Material Control Plan (HMCP) and work plan in accordance with ADEC requirements and DOT&PF contract specifications.
- All barges would be required to carry a spill response kit and other measures would be implemented, including a HMCP, to mitigate any potential spills.
- All construction waste would be managed and disposed of in accordance with all State and federal solid waste management laws and regulations.
- If contaminated or hazardous materials are encountered during construction outside the known contaminated areas, all work in the vicinity of the contaminated site will be stopped until ADEC is contacted and a corrective action plan is approved by ADEC and implemented.

Historical, Architectural, Archeological, and Cultural Resources

- The construction contract will include language that prohibits the use of the airport material source.
- If cultural, archaeological, or historic sites are discovered during project construction, then all work that may impact these resources would stop and the DOT&PF will consult with the State Historic Preservation Office (SHPO).
- The areas where there is a high probability of cultural resources being present would be flagged and avoided during construction of both phases.
- During construction of Phase II of the project, archaeological monitoring will be done for work within and adjacent to high probability areas.

Noise

- The contractor will make every reasonable effort to minimize construction noise through abatement measures such as proper maintenance of construction equipment.

Socioeconomic Impacts, Environmental Justice, and Children's Environmental Health and Safety Risks

- A Traffic Control Plan would be developed to minimize traffic related impacts on the community.
- Access to and from the airport and on the haul routes for vehicle and All-terrain Vehicles would be maintained during construction.
- The Contractor would be required to keep the airport and runway open for operations except for short closures per the Construction and Safety Phasing Plan. Advanced public notice and Notices to Airmen (NOTAMs) will be issued for all runway closures.

Water Quality

- Construction plans will include measures to control erosion and sedimentation.
- All construction activities would be conducted according to the APDES CGP. The DOT&PF would prepare and provide the contractor with an ESCP. The contractor would be required to

prepare a SWPPP and submit it to the DOT&PF for approval prior to construction. The SWPPP would identify all receiving waters and specify the structural and procedural BMPs to be utilized during construction to prevent erosion and untreated runoff from reaching nearby water bodies. BMPs may include:

- Seeding embankment surfaces after embankment is placed and allowed to dry and settle.
- Using silt fencing and other erosion and sedimentation control measures as needed to prevent wetland sedimentation.
- Inspecting the embankment periodically to ensure seeding is successful and reseeding as necessary.
- All vehicles, trucks, and heavy equipment would be kept within construction limits and operated in a manner that limits unnecessary ground disturbance. Equipment would be routinely inspected and serviced to prevent leaks and accidental spills. The SWPPP would also include a HMCP which includes established procedures for responding to accidental spills. If leaks or spills should occur, all contaminated material and soils would be contained and disposed of offsite in an approved location.

Wetlands

- Equipment and vehicle use and staging would be limited to the project footprint or previously disturbed areas wherever possible.

Permits and Approvals

Permits and/or clearances listed below would be obtained prior to construction to comply with all applicable federal, state, and local regulations. The Proposed Action would require the following permits or clearances:

- Section 106 consultation with the State Historic Preservation Office (SHPO), tribes, and other consulting parties (SHPO concurrence received April 29, 2014). SHPO did not concur with the considered and dismissed alternative for the on airport material site.
- USACE Section 404 Individual Permit
- Alaska Department of Environmental Conservation 401 Certificate of Reasonable Assurance for fill in wetlands and waters of the US
- Alaska Department of Fish and Game (ADF&G) Title 16 Fish Habitat Permit

Coordination

Throughout the environmental process, federal, state and local regulatory agencies, local governments, tribal organizations, and the public were consulted to identify concerns or questions regarding the environmental effects and the project design. Coordination efforts included an agency scoping letter (May 17, 2012), public meeting (March 29, 2012), and agency scoping meeting (December 11, 2012). See Section 6 and Appendix G of the Final EA for all additional information on the agency and public scoping efforts and for consultation documents.

Consultation as required by other special purpose laws was conducted independent from the agency and public scoping. Per Section 7 of the Endangered Species Act, DOT&PF, on behalf of FAA, consulted with the US Fish and Wildlife Service from March 2012 to April 2014 to determine that the proposed project is not likely to adversely affect ESA-listed species or habitat. Per Section 106 of the National Historic Preservation Act, DOT&PF and FAA consulted with the State Historic Preservation Officer and local tribes and native corporations. On April 29, 2014,

SHPO concurred with the finding that no historic properties would be affected by the proposed project.

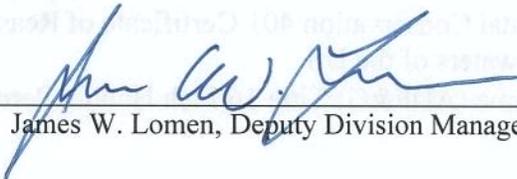
The Draft EA was made available to the public and resource agencies for review. A Notice of Availability was published on the DOT&PF Online Public Notice website and in the Bristol Bay Times and Anchorage Daily News. An email was sent to resource agencies in addition to the published ads. A link to the online Draft EA was provided in both the public and agency notices of availability. Copies of the Draft EA were also placed in the Alaska Resource Library & Information Services at the University of Alaska Anchorage campus, in the DOT&PF Preliminary Design and Aviation Design sections, and three copies were sent to the community of Hooper Bay. Both the public and agencies were provided a 30 day comment opportunity from the date of posting and notice of availability.

The public Notice of Availability included meeting information for a public hearing in Hooper Bay on May 29, 2014. At the public hearing, DOT&PF representatives discussed Phase I of the proposed project and the Draft EA. At the meeting no comments were made on the EA, however several people had questions on the design details of Phase I. Two community members made formal comments after the meeting in support of the proposed project because of the benefits it will provide to their community. See Appendix F for additional information on the public hearing.

Federal Finding and Approval

I have carefully and thoroughly considered the facts contained in the attached EA. Based on that information I find the proposed Federal action is consistent with existing national environmental policies and objectives as set forth in Section 101(a) of the National Environmental Policy Act (NEPA) and other applicable environmental requirements. I also find the proposed Federal action will not significantly affect the quality of the human environment or include any condition requiring consultation pursuant to Section 102(2)(c) of NEPA. As a result, FAA will not prepare an EIS for this action.

Approved by:


James W. Lomen, Deputy Division Manager, FAA Alaska Region

7/24/14
Date

DRAFT ENVIRONMENTAL ASSESSMENT

Hooper Bay Airport Improvements State Project Number: 57419

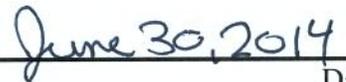
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The Environmental Assessment becomes a federal document when evaluated, signed, and dated by the Responsible FAA Official.



Responsible FAA Official



Date

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Acronyms and Abbreviations

AC	Advisory Circular
ADEC	Alaska Department of Environmental Conservation
ADF&G	Alaska Department of Fish and Game
ADNR	Alaska Department of Natural Resources
ANCSA	Alaska Native Claims Settlement Act
APE	Area of Potential Effect
ASTM	American Society for Testing and Materials
ATV	All-terrain Vehicle
BMP	Best Management Practices
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
DCCED	Department of
DOT&PF	Department of Transportation and Public Facilities
EA	Environmental Assessment
EFH	Essential Fish Habitat
EO	Executive Order
ESCP	Erosion and Sediment Control Plan
ESA	Endangered Species Act
FAA	Federal Aviation Administration
ft	Feet
HMCP	Hazardous Material Control Plan
M&O	Maintenance and Operations
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries
NOAA	National Oceanic and Atmospheric Administration
PAPI	Precision Approach Path Indicator
REIL	Runway End Identifier Lights
SHPO	State Historic Preservation Office
SREB	Snow removal equipment building
SWPPP	Storm Water Pollution Prevention Plan
USACE	US Army Corps of Engineers
USFWS	US Fish and Wildlife Services
YKD	Yukon Kuskokwim Delta

1 Purpose and Need

The Alaska Department of Transportation and Public Facilities (DOT&PF), in cooperation with Federal Aviation Administration (FAA), is proposing to reconstruct the Hooper Bay Airport in Hooper Bay, Alaska. The airport is approximately one mile southwest of the city of Hooper Bay and approximately 150 miles northwest of Bethel. The proposed project is located within Sections 17, 21, 22, 27, 28, 33, and 34, T 17 N, R. 93 W, and Sections 2-4, 10, and 11, T 16N, R 94W on USGS Quad Map Hooper Bay C-4; Seward Meridian; Latitude 61.520585°N, Longitude -166.139534°W (Figure 1).

The purpose of the proposed project is to improve the Hooper Bay Airport so that it safely and efficiently accommodates the current air service requirements and meets the future needs of the community and region. The airport was constructed prior to 1959 and currently consists of a 3,300 foot (ft) long by 75 ft wide paved runway with an adjacent apron and taxiway. Since 2003 there has been a decrease in the number of small aircraft using the airport and an increase in the number of larger aircraft.

Current Safety Needs

The existing runway asphalt surface is severely deteriorated and about 600 ft of the surface at the center of the runway has been reduced to gravel. The surface runway deterioration limits the regular use of the airport by larger aircrafts. Other deficiencies that need addressed to meet FAA design standards for airport safety include:

- Relocating the apron which is too close to the existing runway
- Improving the lighting systems and navigation aids which are currently out of date.

Expected Future Growth Needs

The operations of larger aircraft have noticeably increased at the Hooper Bay Airport and the trend is expected to continue over the next 20 years. Operations of the Beech 1900 began to grow significantly in 2008. Operations in 2009 nearly quadrupled those of 2008 and operations in 2010 more than doubled those of 2009. There were 252 operations of the Beech 1900 at Hooper Bay in 2010. This growth is consistent with the current area transportation plan, the Yukon-Kuskokwim Delta (YKD) Transportation Plan (2002). Although the Beech 1900 is able to use the airport and operations continue to increase, there are still weight restrictions because, to operate at full capacity, the Beech 1900 needs a 4,500 ft runway. The current 2002 YKD plan recommends increasing the runway length to meet the forecasted increase of operations; as of 2010 there are not enough operations to justify an increase in runway length. However, because the current plan and forecast is out of date, a new planning study is scheduled for completion in 2015. The new study will take into account recent aviation trends in the Bethel area and will reevaluate the recommended runway length for Yukon-Kuskokwim Delta airports, including Hooper Bay Airport.

2 Proposed Action

Due to the short-term safety needs and the expected mid-term capacity needs, the project has been split into two phases.

The initial phase would bring the airport up to current FAA design and safety standards and would repair the deterioration of the existing facilities. This would include: armoring the north end of the runway for erosion control, developing material sites, relocating and expanding the apron, relocating utilities, extending the taxiway, construct snow removal equipment building, reconstruct airport access road, and modifying navigation aids as necessary. Construction of Phase I would begin in fall 2014 and would be complete in fall 2015 or 2016.

The second phase of the project, extending the runway, would be evaluated following the completion of the YKD Transportation Plan anticipated in 2015. The planning study (YKD) would recommend the appropriate runway length necessary to meet capacity needs. Because DOT&PF is uncertain of the specific length of the runway extension, a runway length of 4500 ft as proposed in the 2002 transportation plan will be evaluated in this environmental assessment. Depending on the outcome of the YKD Transportation Plan and FAA and DOT&PF's ability to fund the second phase, the runway may be extended upon additional environmental review. The second phase, based on the present plan, would also relocate a beach access road within the airport property.

2.1 Identification of Federal Action

The Federal action requested by the DOT&PF is FAA approval of the Airport Layout Plan and participation in funding of the proposed improvements. The proposed action will be done using funding allocated to the Hooper Bay Airport through the Airport Improvement Program.

3 Alternatives

3.1 No-build Alternative

The National Environmental Policy Act (NEPA) and Council on Environmental Quality regulations in 40 CFR 1502.14(d) require the inclusion of a No-build Alternative in the analysis for the environmental document. The No-build Alternative would leave the existing airport in its current condition and provides a baseline against which to measure the other alternatives.

Leaving the airport in its current condition would not meet the purpose of and need for the project. Flight service to Hooper Bay would continue at a facility that does not meet current FAA design standards.

3.2 Build Alternative

The Build Alternative consists of the airport improvements outlined in Section 2, Proposed Action. To provide material for construction of the airport improvements, two material source options (Figure 2). The airport improvements and the two material source options are evaluated in this EA.

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Leaving the airport in its current condition would not meet the purpose of and need for the project. Flight service to Hooper Bay would continue at a facility that does not meet current FAA design standards.

3.2 Build Alternative

The Build Alternative consists of the airport improvements outlined in Section 2, Proposed Action. To provide material for construction of the airport improvements, two material source options (Figure 2). The airport improvements and the two material source options are evaluated in this EA.

3.2.1 Airport Improvements

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 (Figure 3).

Proposed work for Phase I would include:

- Rehabilitating the existing 3,300 ft 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, including the addition of overhead utility poles, to the new apron
- 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 Runways End Identifier Lights (REILs)
- 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 would be postponed until the updated Area Transportation Plan is complete. Work is expected to include:

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

For both phases of the airport improvements, 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.

3.2.2 Dall Point Material Source

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 for both phases of the airport improvements, 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 incorporated into the mining plan 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.

3.2.2 Barging in Material

The third option is to barge all material, borrow and surface course, from an established material site outside the Hooper Bay area for both phases of the airport improvements. The material site would be selected by the contractor and would be required to have all the proper and 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.

3.3 Alternatives Dropped from Further Consideration

See Appendix A for a summary of proposed alternatives dropped from further consideration during preliminary design of the project. These alternatives either did not meet the purpose and need, would impact historic and cultural resources, or are cost prohibitive.

Airport Property Material Source

In addition to the Dall Point and barging in material options, a third material source was evaluated but dropped after it was found to have potential adverse impacts on historic and cultural resources.

For the airport property material source option, borrow material would have been excavated from a material source located south of the existing runway, within the airport property boundary (Figure 4). The airport material source became a consideration in response to the limited availability of locally supplied borrow material. The airport material source was lower cost than the two material source options carried forward and would have met the purpose and need of the proposed project.

The environmental impacts from the airport material source would have been similar to those which would result from the other two material source options for most of FAA's resource categories listed in FAA Orders 1050.1E and 5050.4B. However, in June 2013 a community member found human remains on a well-used all-terrain vehicle (ATV) trail running through the airport property and the potential airport material source.

The remains were reported per Alaska state law (AS 12.65.5). In Alaska, the "intentional and unauthorized destruction or removal or any human remains or the intentional disturbance of a grave" is a felony (AS 11.46.482(a)(3)).

In response to the discovery, DOT&PF contracted with the University of Alaska Anchorage (UAA) to evaluate and relocate the partially exposed human remains as well as determine if additional cultural resources were located within the vicinity of the human remains. The presence of two sets of human remains and at least one confirmed house pit were identified during the survey (Harrod, 2014). During consultation per Section 106 of the National Historic Preservation

Act, it was determined that the site is eligible for listing on the National Register of Historic Places under Criterion D, yields or may yield important history or prehistory.

Due to the presence of archeological resources eligible for listing in the National Register of Historic Places in the area of the airport material source, this alternative was dropped from consideration. The airport material source would not be available to the contractor. Use of this site would be an adverse effect on historic and cultural resources. See the environmental commitments in Section 5.2 for additional language on the avoidance of the cultural resources.

3.4 Permits and Costs

3.4.1 No-Build Alternative

3.4.1.1 Permits and Approvals

No permits or approvals would be required under the No-build alternative.

3.4.1.2 Cost

No construction funds would be required for the No-build Alternative. An increase in the maintenance and operations cost would likely occur as the airport continues to deteriorate.

3.4.2 Build Alternative

3.4.2.1 Permits and Approvals

The Build Alternative would require the following permits and approvals prior to construction:

- Section 106 consultation with the State Historic Preservation Office (SHPO), tribes, and other consulting parties
- US Army corps of Engineers (USACE) Section 404 Permit for fill in wetlands and waters of the US
- Alaska Department of Environmental Conservation (ADEC) 401 Certificate of Reasonable Assurance for fill in wetlands and waters of the US
- Alaska Department of Fish and Game (ADF&G) Title 16 Fish Habitat Permit

In addition to the permits and approvals listed above, the Dall Point material source would require Alaska Department of Natural Resources (ADNR) Material Site Reclamation Plan approval.

4 Affected Environment and Environmental Consequences

This section of the EA analyzes the environmental resources affected by and the consequences of each alternative as defined by FAA's resource categories listed in FAA Orders 1050.1E and 5050.4B. The purpose of the analysis is to determine the potential environmental impacts that each alternative may cause and whether the impacts would be significant. The alternative is measured against the significance thresholds for each resource category as defined by FAA in FAA Orders 1050.1E and 5050.4B. The context and intensity, or significance, of an alternative's impacts are also measured by comparing the alternative with the No-action Alternative, which serves as a baseline.

Act, it was determined that the site is eligible for listing on the National Register of Historic Places under Criterion D, yields or may yield important history or prehistory.

Due to the presence of archeological resources eligible for listing in the National Register of Historic Places in the area of the airport material source, this alternative was dropped from consideration. The airport material source would not be available to the contractor. Use of this site would be an adverse effect on historic and cultural resources. See the environmental commitments in Section 5.2 for additional language on the avoidance of the cultural resources.

3.4 Permits and Costs

3.4.1 No-Build Alternative

3.4.1.1 Permits and Approvals

No permits or approvals would be required under the No-build alternative.

3.4.1.2 Cost

No construction funds would be required for the No-build Alternative. An increase in the maintenance and operations cost would likely occur as the airport continues to deteriorate.

3.4.2 Build Alternative

3.4.2.1 Permits and Approvals

The Build Alternative would require the following permits and approvals prior to construction:

- Section 106 consultation with the State Historic Preservation Office (SHPO), tribes, and other consulting parties
- US Army corps of Engineers (USACE) Section 404 Permit for fill in wetlands and waters of the US
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In addition to the permits and approvals listed above, the Dall Point material source would require Alaska Department of Natural Resources (ADNR) Material Site Reclamation Plan approval.

4 Affected Environment and Environmental Consequences

This section of the EA analyzes the environmental resources affected by and the consequences of each alternative as defined by FAA's resource categories listed in FAA Orders 1050.1E and 5050.4B. The purpose of the analysis is to determine the potential environmental impacts that each alternative may cause and whether the impacts would be significant. The alternative is measured against the significance thresholds for each resource category as defined by FAA in FAA Orders 1050.1E and 5050.4B. The context and intensity, or significance, of an alternative's impacts are also measured by comparing the alternative with the No-action Alternative, which serves as a baseline.

The following list of resource categories have been determined to be non-issues. Temporary impacts may occur to those categories determined to be non-issues during construction and are further discussed in Section 4.2. Justification for the determination of non-issue can be found in Appendix B.

- Air Quality
- Coastal Resources
- Farmlands
- Floodplains
- Natural Resource and Energy Supply
- Noise
- Secondary (Induced) Impacts
- Wild and Scenic Rivers
- US Department of Transportation Section 4(f)

A comparison and summary of the environmental consequences resulting from the No-build and Build alternatives are shown in Table 4.0.

Table 4.0 Impact Comparison and Summary

Impact Category		No-build	Build Alternative		
			Airport Improvements	Material Source Options	
				Dall Point	Barging Material
Compatible Land Use	Threshold: Does/is the Alternative...	Have land use consequences and is not compatible with existing and planned land uses of the area?			
	Impact	No	No	No: minor change in land use	No
Construction Impacts	Threshold: Does/is the Alternative...	Meet or exceed the threshold for the resources as a result of construction?			
	Impact	No	Temporary impacts at airport would be mitigated during construction		
Fish, Wildlife, and Plants Fish, Wildlife, and Plants	Threshold: Does/is the Alternative...	Reduce the quality or quantity of spawning, rearing, and migratory habitat for resident or anadromous fish species or Essential Fish Habitat?			
	Impact	No	Minor loss of resident fish habitat to extend the runway	No	No
	Threshold: Does/is the Alternative...	Jeopardize threatened or endangered species or their designated critical habitat?			
	Impact	No	Not likely to adversely affect threatened or endangered species		
	Threshold: Does/is the Alternative...	Result in the injury, kill, or capture of birds, eagles, or their nests?			
	Impact	No	No: loss of 38 acres bird habitat	No: loss of 20 acres bird habitat	No: no additional loss of habitat

Impact Categories (cont'd)		No-Build	Build Alternative		
			Airport Improvements	Material Source Options	
				Dall Point	Barging Material
Fish, Wildlife, and Plants Fish, Wildlife, and Plants (cont'd)	Threshold: Does/is the Alternative...	Introduce or spread invasive species?			
	Impact	No	No	No	No
Hazardous Material	Threshold: Does/is the Alternative...	Generate, disturb, transport or treat, store or dispose hazardous wastes?			
	Impact	No	No: Existing on-site contamination would be removed	No	No
Historical, Architectural, Archaeological, and Cultural	Threshold: Does/is the Alternative...	Affect a property eligible or listed on the National Register of Historic Places?			
	Impact	No	No adverse effect on historic or cultural resources		
Light Emissions and Visual Effects	Threshold: Does/is the Alternative...	Create an annoyance, interfere with normal activities, or contrast with the existing environment?			
	Impact	No	No	No: Minor visual changes	No
Socio-economic, Env. Justice, and Children's Health and Safety Risks	Threshold: Does/is the Alternative...	Relocate residences or businesses, disrupt local traffic patterns, and create a loss in the community tax base?			
	Impact	No	No	No	No
	Threshold: Does/is the Alternative...	Cause a disproportionately high and adverse health or environmental risks to minority and low-income populations?			
	Impact	No	No	No	No
Water Quality	Threshold: Does/is the Alternative...	Cause a receiving water to not meet water quality standards or threaten a public drinking water supply or water of national significance?			
	Impact	No	No	No	No
	Threshold: Does/is the Alternative...	Cause disproportionate health and safety risks to children?			
Wetlands	Impact	No	Requires 38 acres of wetland fill	Generates 20 acres of open water	No

4.1 Compatible Land Use

Applicable laws and regulations for this resource category include:

- Aviation Safety and Noise Abatement Act of 1973, as amended
- FAA Airport Noise Compatibility Planning, 14 CFR part 150

4.1.1 Affected Environment

Land use in Hooper Bay is strongly influenced by physical factors, available resources, and land ownership. Physical limitations to development include the presence of wetlands, permafrost, surface drainage, wind direction, erosion and flooding. Because of these limitations, land use around the airport is minimal and consists mainly of traffic moving to and from the beach or subsistence resource areas.

According to FAA guidance, there is a recommended minimum separation distance between airports and land uses which are wildlife attractants (AC 150/5200-33B). Land uses that can be considered wildlife attractants include landfills, water reservoirs, and sewage lagoons. In Hooper Bay, all land uses which could be wildlife attractants are located on the east end of the community, approximately 1.5 miles from the airport.

Ownership of adjacent lands is divided between private individuals, Native Allotments, businesses, Native Corporations, and government entities (DCCED, 2013). There are also two refuges in the project vicinity: Clarence Rhode National Wildlife Range within the Yukon Delta National Wildlife Refuge and the Alaska Maritime National Wildlife Refuge.

Land use and transportation plans in the area include the YKD Transportation Plan (2002) and the Hooper Bay Community Plan (2006). The YKD Plan is out of date and a new planning studied is scheduled for 2015. The Hooper Bay Community Plan was developed by community members and representatives from the City government, Tribal government, and the local Native non-profit using the 2004 community Comprehensive Economic Development Strategy Plan as a framework. The vision of the community is a balance of their subsistence and traditional lifestyle with a sustainable economy. To accomplish this, the plan outlines multiple goals including the following specifically related to development, land use, and transportation:

- Land use and erosion control are a consideration in development
- The transportation infrastructure supports growth
- The community has a healthy economy

4.1.2 Environmental Consequences

Threshold

Would the alternative have land use consequences and is it compatible with existing and planned land uses of the area?

No-build

Under the No-build Alternative, no acquisition of land would be required and there would be no impact on adjacent land use, community infrastructure, businesses, or residential properties.

Airport Improvements

The proposed airport improvements would not extend the airport closer to the community nor would they disturb the existing community infrastructure or land use patterns. Phase II would involve relocating the beach access road to maintain connectivity between the community and coastal resources.

The airport improvements would not cause any residential or business displacements or relocations. This alternative is compatible with the existing land uses, planned development, and community goals for the area surrounding the Hooper Bay Airport.

Dall Point Material Source

Utilizing Dall Point as a material source would result in a change of land use at the Dall Point from undeveloped. Although it would result in a land use change, the Dall Point material source would not cause any residential or business displacements or relocations and it is compatible with the planned development and community goals for the area.

Barging in Material

Barging material would not cause any residential or business displacements or relocations. This material source option is compatible with the existing land uses, planned development, and community goals for the area surrounding the Hooper Bay Airport.

4.2 Construction Impacts

Applicable laws and regulations are listed with the other impact categories within Section 4.

4.2.1 Affected Environment

See the other impact categories within Section 4 for more information on the affected environment and long-term impacts for the impact categories discussed below.

4.2.2 Environmental Consequences

Threshold

Would the alternative meet or exceed the threshold for the other impact categories as a result of construction?

No-build

The No-build Alternative would have no construction-related impacts because it does not involve any construction activities.

Airport Improvements and Material Source Options

Construction of Phase I of the proposed airport improvements would take approximately two years and is scheduled to begin in spring 2015. Phase II would take approximately another two years and design efforts would begin once the Area Transportation Plan has been updated.

Construction-related impacts may temporarily disturb local residents, commuters, and fish and wildlife in the area. Mitigation measures aimed at avoiding and minimizing potential impacts are proposed for each potential impact and would be implemented in accordance with federal, state, and local laws, permit stipulations, and contract specifications. The provisions of Advisory

Circular (AC) 150/5370-10, Standards for Specifying Construction of Airports, would be incorporated into the project specifications.

Air Quality: Temporary air quality impacts from equipment exhaust and the disturbance of soils are expected during construction of the proposed project. However, temporary impacts are not expected to cause or contribute to an exceedance of the National Ambient Air Quality Standards or exceed recommended exposure standards.

Fish, Wildlife, and Plants: Temporary impacts during construction would result from the use of heavy machinery in and adjacent to fish, wildlife, and bird habitat. Measures would be taken during construction to minimize potential impacts and no permanent impacts are anticipated.

Hazardous Materials and Solid Waste: During a Phase I investigation, further discussed in Section 4.4, contamination was identified. A work plan would be developed and implemented during construction to safely remove and dispose of contaminated material.

Solid waste generated during construction may include debris from constructing a new SREB, other miscellaneous construction site debris, and waste from the day-to-day activities of the construction crew. This waste will be disposed of in accordance with state and federal regulations.

Historical, Architectural, Archeological, and Cultural Resources: Construction of the proposed project would require ground disturbance on previously undisturbed ground where expanding airport facilities, developing the material site, and improving the adjacent roads. If cultural, archaeological, or historic sites are discovered during project construction, then all work that may impact these resources would stop and the DOT&PF would consult with SHPO.

Noise: Improvements to the existing airport would create temporary noise impacts during construction. Construction noise would be generated from heavy equipment and would be limited primarily to the runway area, haul routes, and material sites. This could potentially disrupt the normal foraging and breeding behavior of wildlife species. In addition, temporary noise increases could impact nearby properties. If construction noise disturbs the community, work could be limited to the waking hours.

Socioeconomic Impacts, Environmental Justice, and Children's Environmental Health and Safety Risks: Temporary impacts to businesses and the community may result from traffic delays where the access road joins the community road system and the beach access road. Traffic would need to avoid the construction area, material site, staging areas, and haul routes. Flight operations may also be temporarily interrupted during construction.

Water Quality: Construction activities could result in direct, short-term effects to water quality due to ground disturbance and erosion and sedimentation from storm water runoff. In accordance with Section 401 of the Clean Water Act and the Alaska Water Quality Standards, the project would require a Certificate of Reasonable Assurance from ADEC prior to construction. A project-specific Storm Water Pollution Prevention Plan (SWPPP) would be developed in

accordance with the Alaska Pollution Discharge Elimination System and Construction General Permit. The SWPPP would include all applicable Best Management Practices.

Wetlands: Construction within wetlands and waters of the US would be required during construction of the proposed project. To minimize impacts to wetlands during construction, equipment and vehicle use and staging would be limited to the project footprint or previously disturbed areas wherever possible.

4.3 Fish, Wildlife, and Plants

Applicable statutes and executive orders for this resource category include:

- Endangered Species Act, as amended
- Fish and Wildlife Coordination Act, as amended
- Magnuson-Stevens Fisheries Conservation Act, as amended
- Migratory Bird Treaty Act
- Bald and Golden Eagle Protection Act
- EO 13112 Invasive Species

4.3.1 Anadromous Fish and Essential Fish Habitat

Affected Environment

The proposed project area is located adjacent to and within tidally influenced wetlands, streams and ponds that discharge into to the Bering Sea. There are no mapped anadromous or residential fish streams in or around Hooper Bay (ADF&G 2013). Fish trapping in September of 2008 by the DOT&PF found a number of resident fish in the Akuliqataq Slough and its tributaries, as well as in surrounding ponds and wetlands (DOT&PF, 2008). Resident fish trapped in the area include minnows, sculpin, stickleback, blackfish, and a member of the flounder family.

Hooper Bay is designated as Essential Fish Habitat (EFH) for Chinook salmon, chum salmon, pink salmon, coho salmon, and sockeye salmon (NOAA, 2012). Because the slough and its tributaries are not anadromous and only have residential fish they are not classified as EFH.

Environmental Consequences

Threshold

Would the alternative result in a reduction of the quality or quantity of spawning, rearing, and migratory habitat for resident or anadromous fish species or EFH?

No-build

The No-build Alternative would have no impact on resident or anadromous fish habitat or EFH.

Airport Improvements and Material Source Options

The airport improvements would result in a loss of approximately 6.4 acres of resident fish habitat from extending the runway. The improvements and material source development are not anticipated to result in permanent adverse impacts to anadromous or resident fish or fish habitat. Because the project would result in a loss of resident fish habitat, DOT&PF will obtain an ADF&G Title 16 Fish Habitat Permit.

The proposed action would not impact EFH because work within EFH is limited to barging which would not disturb or physically disrupt Hooper Bay.

4.3.2 Threatened and Endangered Species

Affected Environment

During agency scoping, US Fish and Wildlife Service (USFWS) identified several species listed for protection under the Endangered Species Act (ESA) that could be found within the project area. These species include: Steller's eider, spectacled eider, and short-tailed albatross. Dall Point is adjacent to the southern edge of the critical habitat boundary for both species of eider but is approximately 10 miles away from a high-density nesting area observed in 2005. Based on the USFWS 2009 bird survey of the area, the immediate vicinity of the project area does not appear to support breeding populations of the eiders.

In October 2013 and March 2014, additional consultation with the USFWS per Section 7 of the ESA reaffirmed that the Steller's eider and the spectacled eider are the only two listed species that may be found in the project area.

Environmental Consequences

Threshold

Would the alternative jeopardize threatened or endangered species or their designated critical habitat?

No-build

The No-build alternative would not jeopardize threatened or endangered species or their designated critical habitat.

Airport Improvements and Material Source Options

Consultation with the USFWS per Section 7 of the ESA resulted in a determination that the proposed project is not likely to adversely affect protected species. A timeline of the consultation can be found below. See Appendix C for the USFWS consultation documents.

- | | |
|------------------|--|
| October 29, 2013 | USFWS sent a letter concurring with the DOT&PFs determination that airport improvements and the airport property and Dall Point material source options are not likely to adversely affect ESA listed species or their critical habitat. |
| March 3, 2014 | Project design changes, which included the addition of overhead utility poles running from the community to the airport, required DOT&PF to re-consult with USFWS. DOT&PF determined that the project was not likely to adversely affect ESA listed species. The utility poles would be equipped with bird flight diverters which would minimize the probability of eiders colliding with the poles. |
| March 17, 2014 | USFWS called DOT&PF and expressed concern with the location and length of the overhead utility pole line. |

- April 7, 2014 USFWS sent DOT&PF a letter indicating that they believe that eiders would be highly susceptible to striking overhead utility poles and that the USFWS cannot concur with the March determination that the proposed project is not likely to adversely affect listed species. The USFWS recommended burying the utility line or monitoring/surveying the utility line corridor to determine the probability of eiders striking the lines.
- April 11, 2014 DOT&PF revised the location and reduced the extent of the overhead utility poles to 800 linear feet of poles running from the existing SREB to the proposed apron and SREB. An email was sent to USFWS asking what additional consultation efforts were required and indicating that DOT&PF believes the design changes result in the project being adversely to affect the eiders.
- April 16, 2014 USFWS concurred with DOT&PF that the risk of eiders striking the 800-foot overhead utility line, equipped with bird flight diverters, from the existing SREB to the proposed apron and SREB and the probability of harm is low. USFWS concurred that the proposed upgrades to the Hooper Bay airport are not likely to adversely affect listed species or their critical habitat.

4.3.3 Migratory Birds and Eagles

Affected Environment

The Yukon-Kuskokwim Delta is prime habitat for migratory birds, especially waterfowl and shorebirds. Alaska Audubon maintains a WatchList of Alaska birds that are vulnerable or declining. The 2010 Alaska WatchList includes 48 species, at least 30 of which are found in western Alaska. Fifteen of the species are also listed on the *USFWS Birds of Conservation Concern for the Alaska Region 2008* list.

In 2008, the Sea Lion Corporation, the village corporation with surface rights to much of the land adjacent to the project area, asked the USFWS to evaluate the breeding bird resources in the proposed project area. The YKD Wildlife Refuge, managed by USFWS, agreed to coordinate and fund the evaluation. The USFWS conducted their fieldwork from May 19 to June 24 and from July 21 to August 5, 2009. The study area consisted of the airport property, haul routes, material sources, and Nuok Spit in addition to the project areas for alternatives dropped from further consideration. Four “auxiliary areas” were also included in the survey to help determine the importance of the project area as bird habitat (McCaffery, 2009). The Dall Point material source was identified as an area of “conspicuously rich” bird habitat. During an Agency Scoping meeting held on December 11, 2012, the USFWS again identified Dall Point and the material haul route as their largest environmental concern because it is rich bird habitat.

Bald eagles nest near coastlines, streams, and lakes. They build their nests in old-growth trees, on rocks and cliffs, and occasionally on man-made structures such as power poles (USFWS, 2007). Because the project vicinity does not have preferred nesting habitat, it is highly unlikely that eagles are present within the project area.

Environmental Consequences

Threshold

Would the project result in the injury, kill, or capture of migratory birds, eagles, or their nests?

No-action

The No-action Alternative would not involve any vegetation clearing or activities which could result in the injury, kill, or capture of birds, eagles, or their nests.

Airport Improvements

No permanent impacts to migratory birds are anticipated as a result of the airport improvements. Though the alternative would result in a direct loss of approximately 38 acres of migratory bird habitat, suitable habitat would still be abundantly available outside of the project area. All vegetation clearing and new ground disturbing activities would take place outside the migratory bird nesting period for the area. The airport improvements would not result in the injury, kill, or capture of migratory birds, eagles, or their nests.

Dall Point Material Source

No permanent impacts to migratory birds are anticipated as a result of the Dall Point material source options. Although there would be a direct loss of approximately 20 acres of bird habitat, suitable habitat would still be abundant outside of the project area. All vegetation clearing and new ground disturbing activities would take place outside the migratory bird nesting period for the area. This material source would not result in the injury, kill, or capture of migratory birds, eagles, or their nests.

Barging in Material

Barging in material would result in no additional loss of migratory bird habitat than proposed for the airport improvements.

4.3.4 Invasive Species

Affected Environment

A review of the Alaska Exotic Plants Information Clearinghouse data portal and ADF&G Nonnative Species webpages indicated that there are no known or mapped invasive plant or animal species within the project vicinity.

Threshold

Would the alternative introduce or spread invasive species?

No-Build Alternative

The No-build Alternative would not introduce or spread invasive species.

Airport Improvements and Material Source Options

Because there are no known invasive plant or animal species within the project area, the Build Alternative would not result in the introduction or spread of invasive species. See Section 4.2 for the potential invasive species impacts during construction.

4.4 Hazardous Materials, Pollution Prevention, and Solid Waste

Applicable statutes and executive orders for this resource category include:

- Comprehensive Environmental Response, Compensation, and Liability Act, as amended
- Resource Conservation and Recovery Act of 1976, as amended
- EO 12088, Federal Compliance with Pollution Control Standards

4.4.1 Affected Environment

The community landfill, sewage lagoon, fuel plant, and old fuel tanks are all located on the north side of the community, approximately 1.5 miles north east of the existing airport. Land adjacent to the airport is used almost daily for subsistence and is scattered with old storage containers, boats, and fuel barrels. Fuel barrels and de-icing chemicals are also stored on the airport property in the SREB.

An Environmental Site Assessment was conducted for the airport property in January 2013 (BGES, 2012) in accordance with American Society for Testing and Materials (ASTM) E 1527-05 and ASTM E 1903-11 standards to identify any existing potential contamination from hazardous substances. Reconnaissance of the project area indicated three areas of environmental concern: a tar spill, the interior of the SREB, and a non-native material stockpile. Soil samples were taken from the SREB and stockpile. Contamination of the tar spill was evident and sampling was determined unnecessary. Table 4.4.1 summarizes the environmental conditions found during the site assessment:

Table 4.4.1 Summary of Environmental Conditions

Areas of Environmental Concern	Contamination
Tar Spill	Northeast portion of the M&O* lot outside the SREB
Heavily Stained Soils	Inside the SREB and M&O lot
Stockpile of Non-native Material	Small area within the existing material site

*M&O: Department of Transportation and Public Facilities Maintenance and Operations

In addition to the contamination discussed above, the site assessment identified three petroleum spills from the ADEC Statewide Oil and Hazardous Substance Spills Database (2012). These spills were on or adjacent to the airport property but the exact locations are not known. Two of the spills are located somewhere on the airport property and are listed as closed. The remaining site is somewhere along the airport access road and is open with no cleanup.

4.4.2 Environmental Consequences

Threshold

Would the alternative generate, disturb, transport or treat, store or dispose of hazardous waste?

No-Build

The No-Build Alternative would not affect hazardous materials, pollution prevention, or solid waste.

Airport Improvements and Material Source Options

The Build Alternative would generate additional solid waste and require the removal of existing hazardous waste during construction. See Section 4.2 for a discussion of the potential impacts during construction. The airport improvements and material source options would not generate, disturb, transport or treat, store or dispose of hazardous waste after construction is complete.

4.5 Historical, Architectural, Archeological, and Cultural Resources

Applicable statutes and regulations for this resource category include:

- National Historic Preservation Act, as amended
- EO 13175 Consultation and Coordination with Indian Tribal Governments

4.5.1 Affected Environment

Hooper Bay is the largest traditional village on the Yukon-Kuskokwim Delta (DCCED, 2013). Two federally recognized tribes are located in the community: the Native Village of Paimiut and the Native Village of Hooper Bay. Calista Corporation is the regional Native Corporation formed under the Alaska Native Claims Settlement Act (ANCSA) of 1971 and Sea Lion Corporation is the village corporation established under ANCSA.

A reconnaissance level cultural resource survey found one archeological site in the area (DePew, 2010). The site was the location of the community's spring seal camp and consists of about 20 house pits. The site is located near Bone Lake, about 1.5 miles south of the airport and 0.5 miles inland from the Bering Sea coast.

In accordance with Section 106 of the National Historic Preservation Act, DOT&PF, on behalf of FAA, initiated consultation with the State Historic Preservation Office (SHPO) and the local tribes and native corporations on April 12, 2012. The study area, consisting of the existing airport, Build Alternative, and several of the alternatives dropped from further consideration was approved in a response by SHPO on April 23, 2012.

After initiation of consultation, the scope of work was reduced and the final Area of Potential Effect (APE) consisted only of the haul routes, airport access road, existing airport property, Dall Point, and the barge landings. While the archeological site was within the study area, it was outside the APE. Because the one identified site was outside the APE and no other cultural were encountered, it was determined that the project would have no potential to impact historic properties. The SHPO concurred with this finding on June 15, 2012.

On July 2, 2013, DOT&PF was notified that a community member encountered human remains on an ATV trail within the airport property. In response to the discovery, DOT&PF contracted with the University of Alaska Anchorage to evaluate and relocate the partially exposed human remains as well as determine if additional cultural resources were located within the vicinity of the human remains. The presence of two sets of human remains and at least one confirmed house pit were identified during the survey. Based on the recommendation provided in the UAA report, DOT&PF on behalf of FAA has determined that the site (XHB-00121) is eligible for the National Register of Historic under Criterion D, yields or may yield important history or prehistory.

Due to changes in the scope of work and the discovery of human remains on the airport property in summer 2013, DOT&PF, on behalf of FAA, re-consulted with SHPO and the other consulting parties.

4.5.2 Environmental Consequences

Threshold

Would the alternative cause an adverse effect to a property eligible or listed on the NRHP?

No-Action

The No-Build Alternative would not affect historical, architectural, archeological, or cultural resources.

Airport Improvements and Material Source Options

Although the airport improvements take place on the airport property in the vicinity where the human remains and house pits are located, the improvements would result in no adverse effect on historic properties. Phase I would all take place outside of the areas identified by UAA as high probability areas identified by UAA (Figure 5). Phase II of the proposed project would involve relocating the Beach Access Road and navigation aids in the vicinity of the high probability areas.

On April 29, 2014, SHPO concurred with the DOT&PFs finding of no adverse effect on historic properties from the airport improvements described in Section 3.2.1 of this EA. The areas where there is a probability of cultural resources being present would be flagged and avoided during construction of both phases. Archaeological monitoring would be required during Phase II of construction in the vicinity of high probability areas.

Material Source Options

Both the Dall Point material source and the barge landings are in the 2009 survey area and were determined to have no impact on historic resources on June 15, 2012. In the updated findings, DOT&PF determined that the airport improvements and the Dall Point material source and barging in material option would have no adverse effect on historic or cultural resources. Concurrence with this finding was received from SHPO on April 29, 2014, with the condition that the airport material source (further discussed in Section 3.2.2) is not one of the material source options available to the contractor.

4.6 Light Emissions and Visual Impacts

There are no special purpose laws for light and visual impacts.

4.6.1 Affected Environment

The airport property has features and buildings consistent with a community class airport. Six buildings are located at the Hooper Bay Airport: the SREB, the FAA Maintenance Shed, the Alaska National Airspace System Inter-facility Communications System, the Automated Weather Observing System, the FAA lighting control building, the Very High Frequency Omnidirectional Range building, and a hangar. Buildings and facilities are equipped with both temporary and permanent lighting systems that are of medium intensity and are not highly visible from the city of Hooper Bay.

4.6.2 Environmental Consequences

Threshold

Would the alternative create an annoyance, interfere with normal activities, or contrast with the existing environment?

No-Action

The No-Action Alternative would not change light emissions or visually affect the project area.

Airport Improvements

The minor changes in lighting at the airport would not cause an annoyance or interfere with normal activities. Phase I of Alternative A would replace the existing lighting and extend the taxiway and install REILs on the north end of the runway. Phase II would extend the lighting and replace the existing approach lighting system with a larger one. The lights of the new system would be of the same intensity and would be the same distance from the city of Hooper Bay.

There would not be a noticeable contrast between the existing environment and the improved airport. The improvements would be consistent with customary airport design and existing airport features. Disturbed areas would be revegetated or stabilized with surface course material and would be consistent with the surrounding vegetation, terrain, and airport facilities.

Dall Point Material Source

Additional visual impacts would result at Dall Point where there is currently no development. Excavation of the Dall Point material source would change the contours and appearance of the area. As the area is not heavily used, changes at Dall Point would not cause a noticeable change or contrast with the existing environment.

Barging in Material

Barging in material would not change light emissions or visually affect the project area.

4.7 Socioeconomic Impacts, Environmental Justice, and Children's Environmental Health and Safety Risks

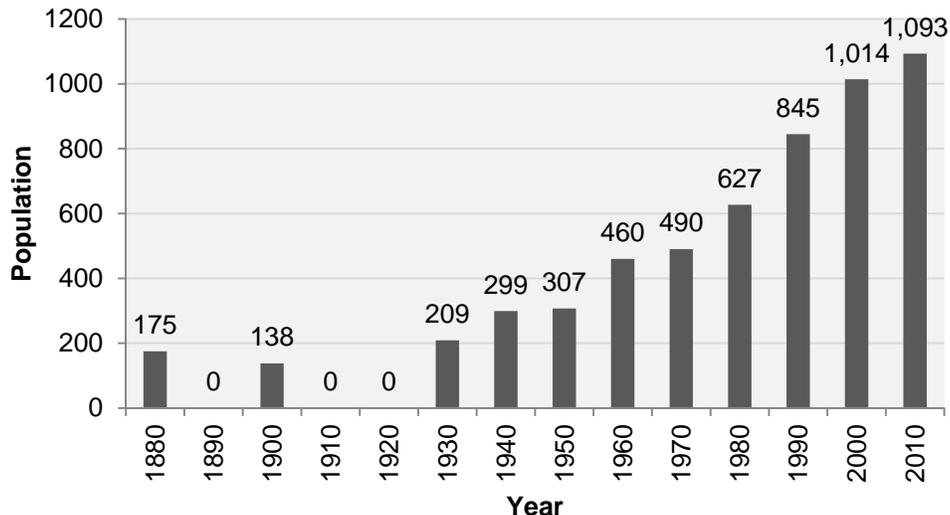
Applicable statutes and regulations for this resource category include:

- Uniform Relocation Assistance and Real Property Acquisition Policies Act, as amended
- EO 12898 Federal Actions to Address Environmental Justice in Minority and Low-Income Populations
- EO 13045 Protection of Children from Environmental Health Risks and Safety Risks

4.7.1 Affected Environment

Hooper Bay is a large traditional Yup'ik community and, according to the 2010 US Census, about 95 percent of the population is American Indian or Alaska Native. The village population is about 1,100 and the median age is 22. Approximately 40 percent of the population is under the age of 18. See Figure 4.7.1, below, for the population growth over time.

Figure 4.7.1 Hooper Bay Population Growth
(Source: DCCED, 2010)



Employment is mostly seasonal fishing or fish processing; about 54 percent of the population lives below the poverty level (DCCED, 2013). Many community members supplement their income with subsistence activities and by selling handicrafts. The subsistence economy is a source of food and resources for rural Alaskans as well as an important cultural activity. To get to these resources, the public uses the Beach Access Road which runs from the airport apron, around the end of the runway, to the beach. During a public open house held on March 29, 2012, community members identified several resources adjacent to the proposed project area including: fish, wildlife, driftwood, greens, berries, eggs, and basket grasses (Figure 6).

4.7.2 Environmental Consequences

Threshold

Would the alternative:

- Relocate residences or businesses, disrupt local traffic patterns, and create a loss in the community tax base?
- Cause disproportionately high and adverse human health or environmental effects on minority and low-income populations?
- Cause a disproportionate health and safety risk to children?

No-Build

The No-Build Alternative would not require the acquisition of property and would not affect low-income or minority populations or children.

Airport Improvements

All work is proposed within the airport property and no residential or business displacements or disruptions of local traffic patterns would occur. The proposed improvements would not result in a disproportionately high or adverse effect on minority population from impacts to subsistence resources.

Dall Point Material Source

The Dall Point material source would not result in residential or business displacements or disruptions of local traffic patterns. A material sales agreement would be developed with Sea Lion Corporation and no permanent acquisition of property would be required.

The community indicated that grass, berry, and wildlife subsistence resources were located around Dall Point, however, they did not voice any concerns regarding potential impacts on subsistence resources. Because of the abundance of subsistence resources in the area, this material source option would not result in a disproportionately high or adverse effect to minority or low-income populations.

No concerns were expressed nor were any potential effects identified which indicated a disproportionate health and safety risk to children as a result of the Dall Point material source.

Barging in Material

Barging in material would not require the acquisition of property and would not affect low-income or minority populations or children.

4.8 Water Quality

Applicable statutes and regulations for this resource category include:

- Clean Water Act, as amended
- Safe Drinking Water Act, as amended
- Fish and Wildlife Coordination Act, as amended

4.8.1 Affected Environment

Hooper Bay has a piped well-water (ADEC Water Permit # AK2270312) and sewer system that services multiple community buildings (DCCED, 2012). All homes and businesses self-haul treated water and groundwater for drinking and other uses from the washeteria and a well source the middle of the village. Residents haul their own wastewater to the city-owned sewage lagoon which is located on the north side of the city. The open-dump landfill, also located on the northern end of the city, was expanded in 1997 and is not currently permitted (ADEC, 2013a).

Receiving waters for the project area include multiple streams, ponds, Akuliquutaq River, and Naparyaraq Slough. The north end of the airport property discharges into the Akuliquutaq River and ultimately into the Bering Sea (ADEC, 2013b). The remainder of the airport property and the land around the airport road drains south to the Naparayaraq Slough and into Hooper Bay. A review of the ADEC Alaska Impaired Waters List indicated that none of these water bodies are impaired.

4.8.2 Environmental Consequences

Threshold

Would the alternative cause a receiving water to exceed water quality standards or threaten a public drinking water supply or water of national significance?

No-Action

The No-build Alternative would not change drainage patterns in the area. Because there would be no change in drainage, this alternative would not cause a receiving water to exceed water quality standards or threaten a public drinking water supply or water of national significance.

Airport Improvements

The proposed improvements would require the permanent placement of fill material into ponds to relocate the airport apron, improve the airport access road, and extend the runway. While this work would increase the surface area of the airport and its facilities, it would not change discharge from the airport. Airport facility surfaces would be constructed out of permeable material. The permeable material would allow storm water to infiltrate into the airport surfaces without resulting in additional or contaminated surface flow.

See Section 4.2 for temporary water quality impacts during construction and Section 4.9, Wetlands and Waters of the US, for additional impacts from work within water bodies.

Material Source Options

The material source options would not result in a change of drainage patterns, cause a waterbody to exceed water quality standards, or threaten a public drinking water supply or water of national significance

4.9 Wetlands and Waters of the US

Applicable statutes and regulations for this resource category include:

- Clean Water Act, as amended
- EO 11990 Protection of Wetlands
- USACE Alaska District Regulatory Guidance Letter ID No. 09-01

4.9.1 Affected Environment

The Yukon-Kuskokwim Delta (YKD) Region covers more than 30,000 square miles and is characterized by expansive areas of near sea-level lowlands, marshes, and shallow lakes with isolated sections of bedrock forming low hills. The hydrology, soils and geology of the project area are typical to the YKD region. The project area, outside the existing airport facilities and proposed material sources, consists entirely of freshwater emergent wetlands broken by areas of open water (USFWS, 2013a). Emergent wetlands are defined as a system of deep-water tidal habitats and adjacent tidal wetlands which have some hydrologic connection to the ocean (Cowardin, 1979). The Dall Point material source and staging areas are on small pockets of upland coastal dunes and hills. Because the uplands are scattered and small, they are considered part of the emergent mosaic and wetlands.

The wetland, streams, ponds, and other open water within the project area fall under the jurisdiction of the USACE per Section 404 of the Clean Water Act. These water bodies are all hydrologically connected to each other, Hooper Bay, and the Bering Sea.

Habitat and plant richness are the two primary functions of the wetlands in the project area. Due to the lack of elevation changes, the wetlands do not function well for flood flow alteration, sediment removal, or erosion control. Though they provide important wetland functions, they are not unique as the entire YKD region is comprised of similar habitats. The wetlands and water

bodies in and surrounding the project area have been determined as Category III, or moderate to low functioning.

4.9.2 Environmental Consequences

Threshold

Would the alternative adversely affect wetland function, value, ability to retain floodwater, and system's support of fish and wildlife resources?

No Action

The No-Action Alternative would not require the discharge of dredged or fill material into wetlands or water bodies under the jurisdiction of USACE.

Airport Improvements

Phase I of the airport improvements would require impacts to wetlands and water bodies to relocate the apron and improve the airport access road. Phase II would require further fill in Waters of the US to extend the existing runway to 4,500 ft and to relocate the Beach Access Road. See Tables 4.9.1 and 4.9.2, below, for detailed impacts to wetlands and water bodies.

Table 4.9.1 Wetland Impacts by Phase and Action

Action	Area (acres)	Excavation (cubic yards)	Fill (cubic yards)
Phase I			
Drainage Improvements	8.4	35,000	—
Apron Relocation	8.0	—	125,000
Road Improvements	7.5	20,000	60,000
Phase II			
Runway Extension	7.0	—	95,000
Relocate Beach Access Road	7.0	5,500	55,000
Total Wetland Impacts	37.9	60,500	335,000

Table 4.9.2 Water Body Impacts by Phase and Action

Action	Area (acres)	Excavation (cubic yards)	Fill (cubic yards)
Phase I			
Drainage Improvements	—	—	—
Apron Relocation	3.5	—	85,000
Road Improvements	0.5	1,500	5,000
Phase II			
Runway Extension	1.0	—	16,000
Relocate Beach Access Road	1.4	—	15,000
Total Waterbody Impacts	6.4	1,500	121,000

The proposed improvements would not result in an adverse effect on the functions and values of the surrounding wetlands and waterbodies. The area of wetlands impacted by the proposed project is negligible compared to the overall size the YKD region.

Dall Point Material Source

Developing the Dall Point material source would require the excavation of approximately 350,000 cubic yards of borrow material from 20 acres of emergent wetlands, six acres and 175,000 cubic yards of material for each phase. The proposed improvements would not result in an adverse effect on the functions and values of the surrounding wetlands and water bodies. The area of wetlands impacted by the proposed project is a negligible part of the YKD region.

Barging in Material

Barging in material would not require the discharge of dredged or fill material into wetlands or water bodies under the jurisdiction of USACE.

5 Mitigation and Summary of Environmental Commitments

The mitigation measures and commitments below would be met to minimize impacts during and after construction of the proposed project. The terms, conditions, and stipulations of the environmental permits and clearances will also be met. All commitments will be part of the construction contract specifications.

5.1 Mitigation

Mitigation of potential impacts would be required for impacts on wetlands and water bodies under the jurisdiction of USACE resulting from the Build Alternative and further described in Section 4.9. In accordance with 33 CFR Part 325.1(d)(7), wetland mitigation must describe how impacts to waters of the United States are to be avoided and minimized. It must also describe how the impacts to waters of the US are to be compensated.

Avoidance of Impacts

Impacts to wetlands were avoided by choosing the least environmentally damaging practicable alternative. The Build Alternative uses the existing airport runway and facilities to the extent practicable. However, the project vicinity is comprised entirely of emergent wetlands and complete avoidance of wetlands was not possible.

Minimization of Unavoidable Impacts

The area of impact would be minimized by utilizing already disturbed areas as much as possible such as the existing apron, road corridor, and staging area. However, complete avoidance of wetlands is not possible.

Compensation for Unavoidable Impacts

Compensation for unavoidable impacts on waters of the US shall be provided in accordance with USACE RGL ID No. 09-01, which requires a mitigation plan based on the functions and values of the affected wetlands, and compensatory mitigation for federally-funded projects. The wetland impacts would be compensated at a mitigation ratio of 1.5:1 for preservation because the wetlands were determined to be Category III, moderate to low functioning, and are not unique to the area.

Dall Point Material Source

Developing the Dall Point material source would require the excavation of approximately 350,000 cubic yards of borrow material from 20 acres of emergent wetlands, six acres and 175,000 cubic yards of material for each phase. The proposed improvements would not result in an adverse effect on the functions and values of the surrounding wetlands and water bodies. The area of wetlands impacted by the proposed project is a negligible part of the YKD region.

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Table 5.1 Area (acres) of Waters of the US Impacts to be Mitigated

Build Alternative	Wetlands		Water Bodies	
	Phase I	Phase II	Phase I	Phase II
Airport Improvements	23.9	14.0	0.6	2.0
Material Source Options				
Dall Point	10	10	—	0.3
Barging in Material	—	—	—	—

The primary compensatory mitigation would be through the purchase of mitigation bank credits or payment of an in-lieu fee. However, the mitigation banks with projects in Alaska do not have property or service areas in the YKD region. In order to replace the functional losses in the area, and after further coordination with the community, DOT&PF may opt for permittee-responsible mitigation for all or a portion of the proposed compensatory mitigation.

5.2 Environmental Commitments

The following environmental commitments apply to the Build Alternative including the airport improvements and all material source options. As the No-Build Alternative does not require construction activities, it does not require environmental commitments or mitigation.

Air Quality

- Airborne dust would be minimized by application of water, periodic sweeping and proper disposal of solid materials, and stabilization of all disturbed soils, entrances and exits. No vehicles, trucks, and heavy equipment would be allowed to unnecessarily idle and would be routinely maintained and serviced.

Construction

- Advance notice of construction and detours will be provided to airport users.
- A material Site Reclamation Plan would be prepared by the contractor. The reclamation plan would include commitments to return the area to pre-existing conditions and reestablishing beach grasses on areas not likely to be submerged.

Fish and Wildlife

- No equipment or vehicles would be operated within any creeks and no fueling or maintenance would occur within a minimum of 100 feet of the creeks and associated wetlands. The work area would be isolated from the flowing water of the waterway to prevent fish from encountering turbid waters. Wetland and streambank vegetation would not be disturbed. Any disturbed areas would be revegetated with native species.
- Vegetation would not be cleared between May 5 and July 25 to avoid disturbing nesting birds and migratory waterfowl
- Embankment fill would be hauled during the winter months when the ground is frozen enough to support heavy equipment, avoiding and minimizing wildlife impacts.
- All in-water and over-water work would occur in accordance with the ADF&G Title 16 Fish Habitat Permit stipulations.

- DOT&PF will comply with all federal, state, and local laws and regulations regarding invasive species during construction of the proposed project.
- Soil stabilization materials, top soils, and seed mixes that are free from noxious weeds will be used. If these materials are not available, locally produced products will be used to minimize potential importation of new weed propagules from outside Alaska.
- All disturbed areas outside the runway and other facility surfaces will be reseeded and vegetated with native species in accordance with the DNR Alaska Coastal Revegetation and Erosion Control Guide.

Hazardous Materials, Pollution Prevention, and Solid Waste

- The Construction Contractor will be required to prepare and implement a Hazardous Material Control Plan (HMCP) and work plan in accordance with ADEC requirements and DOT&PF contract specifications.
- All barges would be required to carry a spill response kit and other measures would be implemented, including a HMCP, to mitigate any potential spills.
- All construction waste would be managed and disposed of in accordance with all State and federal solid waste management laws and regulations.
- If contaminated or hazardous materials are encountered during construction outside the known contaminated areas, all work in the vicinity of the contaminated site will be stopped until ADEC is contacted and a corrective action plan is approved by ADEC and implemented.

Historical, Architectural, Archeological, and Cultural Resources

- The construction contract will include language that prohibits the use of the airport material source.
- If cultural, archaeological, or historic sites are discovered during project construction, then all work that may impacts these resources would stop and the DOT&PF will consult with the State Historic Preservation Office (SHPO).
- The areas where there is a high probability of cultural resources being present would be flagged and avoided during construction of both phases.
- During construction of Phase II of the project, archaeological monitoring will be done for work within and adjacent to high probability areas.

Noise

- The contractor will make every reasonable effort to minimize construction noise through abatement measures such as proper maintenance of construction equipment.

Socioeconomic Impacts, Environmental Justice, and Children's Environmental Health and Safety Risks

- A Traffic Control Plan would be developed to minimize traffic related impacts on the community.
- Access to and from the airport and on the haul routes for vehicle and All-terrain Vehicles would be maintained during construction.
- The Contractor would be required to keep the airport and runway open for operations at all times per the Construction and Safety Phasing Plan.

Water Quality

- Construction plans will include measures to control erosion and sedimentation.
- All construction activities would be conducted according to the APDES CGP. The DOT&PF would prepare and provide the contractor with an ESCP. The contractor would be required to prepare a SWPPP and submit it to the DOT&PF for approval prior to construction. The SWPPP would identify all receiving waters and specify the structural and procedural BMPs to be utilized during construction to prevent erosion and untreated runoff from reaching nearby water bodies. BMPs may include:
 - Seeding embankment surfaces after embankment is placed and allowed to dry and settle.
 - Using silt fencing and other erosion and sedimentation control measures as needed to prevent wetland sedimentation.
 - Inspecting the embankment periodically to ensure seeding is successful.
- All vehicles, trucks, and heavy equipment would be kept within construction limits and operated in a manner that limits unnecessary ground disturbance. Equipment would be routinely inspected and serviced to prevent leaks and accidental spills. The SWPPP would also include a HMCP which includes established procedures for responding to accidental spills. If leaks or spills should occur, all contaminated material and soils would be contained and disposed of offsite in an approved location.

Wetlands

- Equipment and vehicle use and staging would be limited to the project footprint or previously disturbed areas wherever possible.

6 Scoping

Throughout the environmental process, federal, state and local regulatory agencies, local governments, tribal organizations, and the public were consulted to identify concerns or questions regarding the environmental effects and the project design. This section does not include formal discussions required by other environmental special purpose laws. See Appendix G for all agency and public scoping documents.

6.1 Agency Scoping

An agency scoping letter describing the purpose of the proposed project, its scope, and environmental resources within the project area was sent via e-mail to federal, state, and local agencies on May 17, 2012. The letter requested information on sensitive resources potentially impacted by the project, permits and clearances that may be required, and any general concerns with the proposed project. An agency meeting was held on December 11, 2012. However, the only outside agency in attendance was USFWS. The remaining attendees were from DOT&PF and FAA. Agency scoping responses are summarized below in Table 6.1.

Water Quality

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Table 6.1 Agency Scoping Comment Summary

Name	Agency	Comment
Agency Scoping Letter		
Bill Janes	ADEC	<ul style="list-style-type: none"> The project is not within the footprint of any existing contaminated sites.
Cameron Kuhle	USACE	<ul style="list-style-type: none"> Based on the information provided, USACE preliminarily determined that the project area contains waters of the US. Authorization under Section 404 of the Clean Water Act is required to place dredged and/or fill material into waters of the US.
Kimberly Klein	USFWS	<ul style="list-style-type: none"> The USFWS provided a species list in accordance with Section 7 of the Endangered Species Act. The list and further correspondence is summarized in Section 4.3.2.
Agency Scoping Meeting		
Morgan Merrit (DOT&PF) on behalf of the corporation	Sea Lion Corporation	<ul style="list-style-type: none"> The Project Manager communicated the corporations concern about hazards to snow machine transportation across the pond created by excavating material from the airport property.
USFWS Kimberly Klein	USFWS	<ul style="list-style-type: none"> The Dall Point material source and haul route are the biggest concern of USFWS. It is preferred that all clearing and construction work take place outside the USFWS migratory bird nesting window. If work within the migratory bird nesting window then it is recommended that DOT&PF pre-disturb or survey construction areas for nests before construction.

6.2 Public Scoping

A public meeting was hosted by the DOT&PF on March 29, 2012, from 12:00 pm to 2:00 pm at the Hooper Bay School. Flyers were provided to the city and announcements were made on the radio advertising the meeting. A presentation was made by staff from DOT&PF Aviation Design, Environmental, Right-of-way, Maintenance and Operation sections and the DOT&PF Statewide Coastal Engineer. Members of the public made verbal comments during the meeting and their comments with DOT&PF responses are included in the meeting record. Written comments were also sent to DOT&PF after the meeting.

6.3 Draft EA Review

The Draft EA was approved by the FAA on May 10, 2014, and the document was made available to the public and resource agencies for review. A Notice of Availability was published on the DOT&PF Online Public Notice website and in the Bristol Bay Times and Anchorage Daily News. An email was also sent to resource agencies. A link to the online Draft EA was provided in both the public and agency notices of availability. Copies of the Draft EA were also placed in the Alaska Resource Library & Information Services at the University of Alaska Anchorage campus, in the DOT&PF Preliminary Design and Aviation Design sections, and three copies were sent to the community of Hooper Bay. Both the public and agencies were provided a 30 day comment opportunity from the date of posting and notice of availability.

The public Notice of Availability included meeting information for a public hearing in Hooper Bay on May 29, 2014. At the public hearing, DOT&PF representatives discussed the Draft EA and Phase I of the proposed project and the Draft EA. No comments were made on the Draft EA,

however several people had questions on the design details of Phase I. Two community members made formal comments in support of the proposed project because of the benefits it will provide to their community. See Appendix F for additional information on the public hearing.

On June 13, 2014, DOT&PF received a comment sheet via email from a community member which identified an area by the airport that has cultural value. The area of concern is within the project area for Phase II of the proposed project, The EA includes requirements for additional environmental work prior to and archeological monitoring during construction of Phase II.

No comments on the Draft EA were received from resource agencies.

7 List of Preparers

The people primarily responsible for developing or the review of this EA are listed below in Table 7.0.

Table 7.0 List of Preparers

Name	DOT&PF Title and Role	Contribution	Relevant Experience
Luke Bowland, P.E.	Aviation Project Manager	Design Support	12 years civil engineering experience
Phillip Cheasebro	Aviation Designer	Design Support	Five years civil engineering experience
Brian Elliott	Regional Environmental Manager	Review	12 years environmental impact analysis experience
Matthew Hansen, P.E.	Aviation Squad Leader	Design Support	10 years civil engineering experience
Lita Lubitish-White	Drafter	Figures	20+ years drafting experience
Kathleen Shea	Environmental Impact Analyst	Technical Editor	one year environmental impact analysis experience
TaraLyn Stone	Environmental Impact Analyst	Primary Author	three years environmental impact analysis experience

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TaraLyn Stone	Environmental Impact Analyst	Primary Author	three years environmental impact analysis experience

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