Final Environmental Assessment

Nome Airport

Runway Safety Area Improvements

64.51° North Latitude and 165.44° West Longitude Sections 21-23 and 26-28, T011S, R034W, Kateel River Meridian

> October 2012 State Project Number: 61413



Department of Transportation Federal Aviation Administration

FINDING OF NO SIGNIFICANT IMPACT Nome Airport Runway Safety Area Improvements DOT&PF Project No. 61413

Purpose and Need

The Proposed Action would enhance safety at the Nome Airport by bringing the runway safety area (RSA) into compliance with Federal Aviation Administration (FAA) standards to the extent practicable based on available funding. The airport is vital because air transportation is the only feasible year-round mode of travel for fuel, supplies, and passengers to Nome, the Bering Strait regional transportation center. A congressional mandate (Public Law 109-155) requires airports with Airport Operating Certificates to comply with FAA design standards, which state that such airports shall provide a standard RSA, to the extent practicable, for the types of aircraft regularly operating at a facility. Nome Airport holds an Airport Operating Certificate and therefore must comply with the congressional mandate. Nome's main and crosswind runways (Runway 10-28 and Runway 3-21, respectively) are currently classified by the Airport Reference Code as C-III, servicing commercial jets. FAA's RSA standards for C-III runways are 500 feet (ft) wide and 1,000 ft long beyond each runway end. Neither RSA at the Nome Airport meets FAA design standards.

Requested Federal Action

The Alaska Department of Transportation and Public Facilities (DOT&PF) is requesting the following federal actions from the FAA: (1) approval of the Airport Layout Plan; (2) participation in funding the proposed improvements using Airport Improvement Program (AIP) grant funds; and (3) property acquisition for right-of-way (ROW) as necessary for airport improvements as identified in the Final EA and approved in this Finding of No Significant Impact (FONSI).

Proposed Action

• Main Runway 10-28. Existing cleared areas along the north and south sides of the runway would be graded to create a 500-ft-wide RSA along the entire paved runway, with only minor deficiencies in width on the southwest end, to minimize impacts to the Snake River. Additionally, threshold RSAs would be constructed at the east and west ends of the runway. A 1,000-ft-long RSA would be built beyond the eastern end of the runway by grading and extending the existing cleared area to the width practicable; the RSA would be deficient in width on the south side for 500 ft on the east end to avoid impacts to Seppala Drive and the Snake River and to preserve existing instrument approach procedures. A new 190-ft-long embankment off the western end of the runway would provide for a 170-ft-long RSA equipped with an Engineered Materials Arresting System (EMAS). A 150-ft-wide and 135-ft-long EMAS arrestor bed would be constructed on the paved RSA surface beyond the west threshold, with a 35-ft set-back/lead-in ramp. The north and south edges of the EMAS bed would slope for 10 ft. The RSA would include a 20-ft-wide paved access off the west end of the arrestor bed, a 15-ft-wide paved access on the north and south sides, and an additional graded area on the north side of the arrestor for maintenance and emergency vehicle access.

- Snake River Realignment. To accommodate the western embankment extension and the EMAS bed, land would be acquired and the Snake River would be realigned between approximately river miles (RMs) 2.1 and 2.3 and routed around the RSA expansion area in a modified 900-ft-long channel; the realignment would require a maximum excavation depth of approximately 25 ft and construction dewatering,. A ditch on the north side of the main runway would be improved and drainage would continue to flow from the ditch to the Snake River as it does at present. The modified channel would have cross-sectional geometry, flood flow, and spring breakup ice flow conveyance characteristics similar to those of the existing river. The maximum slope of the RSA embankment extending into the new channel would be 2:1 (horizontal to vertical), and the cut slope geometry across the river from the expanded RSA would be based on the existing cross-sectional geometry of the river, with a maximum slope of 3:1. Cut slopes above the ordinary high water line (OHW) would be revegetated with a seed mix appropriate for the region. Of the approximately 24,000 cubic yards (cy) of excavated material from the realignment, a portion of the material would be placed as fill on the new embankments and unused material would be stockpiled in a DOT&PF stockpile area proposed as part of the project.
- Crosswind Runway 3-21. The RSA would be widened to the standard 500 ft, except on the south end of the runway where it would follow the existing embankment to avoid additional impacts to the Snake River. Thresholds would be shifted 600 ft to the north for Runway 3 operations, providing a 600-ft non-standard RSA south of the shifted Runway 3 threshold, eliminating airspace obstructions, and ensuring that nighttime approach procedures for Runway 3 would continue. The safety area on the north end would then be extended beyond the new Runway 21 threshold by 1,000 ft. Threshold 21 would be displaced to maintain its existing approach and continue use of existing navigational aids (NAVAIDS). The NAVAIDs for Runway 3 would be relocated and the new 600-ft runway and shoulder surface would be paved due to the threshold shift. The proposed action would require relocation of a segment of Construction Road, part of the Center Creek channel, a segment of a water utility line, and the existing drainage ditch west of the crosswind runway. Of the approximately 280,000 cy of excavated material from the threshold shift and RSA extension, a portion of the material would be placed as fill on the new embankments and unused material would be stockpiled in a DOT&PF stockpile area proposed as part of the project.
- Utility Relocation. The Nome Joint Utility System's water line that currently runs along the existing Construction Road and east of the crosswind runway would be realigned to allow for the extension of the crosswind runway embankment to the north. An overhead power line from the west end of the runway to the localizer west of the Snake River would be realigned to allow for the extension of the main runway embankment.
- **Drainage Improvements**. Center Creek and the existing dike on its west side would be shifted east to provide a buffer between the water and the new crosswind embankment to prevent flooding problems. A road immediately west of the rerouted ditch would provide access for aufeis (body of layered ice) management. A 10-ft-tall dike would be constructed along the northern 900 ft of the ditch to ensure that flow and aufeis is routed away from airport surfaces. The rerouted stream would rejoin the existing conveyance just southeast of the existing Runway 21 threshold. Additional drainage improvements along the creek would be necessary near the threshold 28 end of the proposed main RSA to move the drainage away from the area that would be filled by the proposed embankment extension and to reestablish the ditch to connect flow to the Snake River.
- **Construction Road Relocation**. Approximately 1,500 ft of Construction Road north of the existing threshold 21 would need to be relocated to allow for the crosswind runway RSA expansion and threshold shift.
- Stockpile Area. The stockpile site is approximately 15 acres and designed to accommodate all unused excavated material generated from the project. Land would be acquired to construct the site southwest of the relocated Construction Road, which would be used for access. To reduce the

attractiveness of the stockpile site to nesting migratory birds, the site would be graded or other best management practices (BMP) used to eliminate potential ponding of water and encourage runoff

• **Property Acquisition**. The proposed property acquisition would be a mixture of land purchase and avigation easement, to include existing and planned airspace required for safe and efficient aircraft operations and all other existing and planned airport elements. The other airport elements include: Object Free Areas; Runway Protection Zones; areas under the airport airspace imaginary surfaces out to where the surfaces obtain a height of 35 ft above the primary surface; and areas, other than those that can be adequately controlled by zoning, easements, or other means to mitigate potential incompatible land uses. The lands proposed for property acquisition range from areas disturbed by past mining activity to areas of undisturbed wetlands, and although most of the property is owned by a single proprietor, several parcels are owned by the City of Nome and Sitnasuak Native Corporation/Bering Straits Native Corporation. No property acquisition. Any property acquisition in areas containing contamination would be avigation easement only.

Reasonable Alternatives

The two alternatives are the No Action Alternative and the Proposed Action. Under the No Action Alternative existing deficiencies would remain present at the airport. This alternative would not improve RSAs to the extent practicable given available funding and the risk to aircraft and personal injury from accidents would not be reduced. The No Action alternative would make no improvements to the existing main runway RSA, which has no safety area beyond threshold 10 and has a graded area beyond threshold 28 that is of deficient width and narrows to less than the runway width towards the east end. Additionally, no improvements would be made to the crosswind runway RSA, which has a 200-ft width deficiency and lacks safety area beyond either threshold. This alternative does not meet FAA design standards. The stated purpose and need to meet FAA standards to the extent practicable would not be met by this alternative.

Other alternatives (discussed in the Final EA, Section 3.1) were considered but dismissed.

- Snake River Relocation. Three relocation alternatives were developed. The first would reroute the river more directly south from RM 3.7 and create a new river mouth 13,000 ft west of the existing harbor. This alternative was dismissed due to the impractical cost and undesirable environmental and socioeconomic impacts associated with the creation of a new river mouth. The second alternative considered a substantial relocation of the river that would reconnect with the existing river. Although the difference in hydraulic characteristics between the new and existing river channels would be negligible, and impacts to fish habitat and the estuary would be temporary or minor, the high estimated cost of this alternative led to its dismissal. The third alternative evaluated a reduced Snake River relocation that was established as the preferred option. The alternative was ultimately dismissed due to economic infeasibility, particularly with respect to construction dewatering and property acquisition costs. Details of the relocation options are found in the Final EA, Appendix A.
- **RUNWAY 10-28.** Implementing declared distances on the main runway to gain a standard RSA was dismissed because it would decrease runway length, and reducing runway length to meet RSA standards is not allowed under an amendment to Public Law 108-176. Constructing an EMAS bed to standard criteria beyond threshold 10 was dismissed due to high costs. Shifting the main runway threshold east to create space for the RSA was dismissed because it would degrade instrument approach procedures and require relocation of several roads. Constructing a bridge to create RSA spanning the Snake River, on the west end, was dismissed due to high costs and concerns about flooding and salmon migration. Complete relocation of the main runway to an area just northwest of the airport was dismissed due to a lack of available funding.

- **RUNWAY 3-21.** Relocating the Snake River to accommodate a full RSA for Runway 3-21 was dismissed due to undesirable environmental and economic impacts. Shifting Runway 3-21 north to provide space for a full 1,000-ft RSA for threshold 3 was dismissed due to the prohibitive cost associated with rehabilitating hazardous waste sites on land that would be acquired for this alternative.
- Stockpile Area. Disposal of material at the Nome landfill was dismissed due to the large quantity of material that would need to be disposed of and the lack of ability to use the fill for later airport projects. Contractor responsibility for material disposal was dismissed because a large amount of excavated material generated would be usable for future airport projects. Options to develop an offsite stockpile area were dismissed for various reasons, including potential to delay the project schedule, greater environmental impacts, and the need for new or improved access roads.
 - In the DEA, Stockpile Site 1, west of the proposed relocated Construction Road, was chosen as the preferred stockpile location. However, USFWS requested that DOT&PF reconsider this selection, recommending that Stockpile Site 2, southwest of the proposed Construction Road, was the Least Environmentally Damaging Practicable Alternative (LEDPA). After re-evaluation, DOT&PF concurred that Site 2 was LEDPA, and selected it as the preferred stockpile location.

Coordination

Pre-scoping meetings were held in October 2009 and November 2010 with a Multi-Agency Task Force consisting of the U.S. Fish and Wildlife Service (USFWS), the Alaska Department of Fish and Game (ADF&G), the Alaska Department of Environmental Conservation (ADEC), the U.S. Army Corps of Engineers (USACE), the Nome Port Commission, and the National Marine Fisheries Service (NMFS). Informal Endangered Species Act Section 7 consultation was conducted in April 2011 regarding potential impacts to threatened and endangered species. A scoping meeting was held on May 17, 2011 with a Fisheries Work Group (Multi-Agency Task Force subcommittee) consisting of ADF&G, the Nome Port Commission, and NMFS. Public meetings were held on September 17, 2009; June 2, 2010; and May 16, 2012. Consultations for potential impacts to Essential Fish Habitat and as required by the National Historic Preservation Act Section 106 were ongoing between April 2011 and May 2012.

The Draft EA was circulated for public and resource agency review on May 3, 2012. A public meeting to present and discuss the Draft EA was held on May 16, 2012. The proposed project was well received by the attending public; no opposition was voiced to the Proposed Action (see Appendix F of the Final EA for the meeting summary). Key agency comments and how they have been addressed are summarized in the Final EA Summary on pages i, ii.

The USFWS concurred with DOT&PF's determination that the proposed project is not likely to adversely affect listed species, candidate species, or polar bear critical habitat on May 9, 2011. On May 14, 2012, SHPO concurred with a finding of no adverse effect for the Proposed Action. A summary of agency coordination activities is provided in the Final EA in Chapter 5, Table 6.

Impact Assessment

The Final EA analysis determined that the Proposed Action would not have significant adverse effects. Details of the environmental consequences are presented in the Final EA, Chapter 4. The realigned Snake River is expected to provide the same habitat values as it does currently. Drainage patterns of the area surrounding the river realignment would be altered; however, no permanent changes to water quality are expected. No permanent effects to EFH or EFH-managed species are expected since the realigned channel segment would be relatively small, roughly equivalent in length to the existing channel, and 58.2 acres of habitat would be disturbed by the Proposed Action through either excavation or fill. Impacts to wildlife

would be minor, though, as this habitat is already degraded in value due to proximity to developed surfaces and active hazing by the Nome Airport to discourage waterfowl from loafing and nesting near the runways. The overall net impact to plant communities would be relatively minor as the types of vegetation that would be affected are widespread throughout the vicinity of the project area. The Proposed Action would involve approximately 58.2 acres of unavoidable wetlands and waters impacts through excavation or fill. DOT&PF will propose fee in-lieu compensatory mitigation for the wetland and waters of the U.S. impacts associated with the Proposed Action. Land that would be purchased for development of the Proposed Action would not contain known or suspected contamination.

The DOT&PF has consulted with FAA on a finding of a Section 4(f), *de minimis* impact on the Nome Dredge No. 6 Historic Mining District and the Samuelson Trail. DOT&PF determined that the Proposed Action would result in no adverse effect on historic properties, therefore FAA made a *de minimis* impact finding under the provisions of 49 USC Section 303(d). SHPO did not object to FAA's *de minimus* impact finding. This is the case, because the only action proposed in the historic district and trail is land acquisition needed to secure ROW interests.

Avoidance, Minimization and Mitigation Measures

Conditions of approval associated with this project are detailed in the Final EA and project permits and will be included in the construction contract documents. The project has been coordinated with the appropriate agencies and local Tribes and includes measures to avoid and minimize impacts. The following commitments will be included in the project to reduce environmental impacts.

Air Quality

• Measures to control fugitive dust such as pre-watering sites prior to excavation, applying a dust palliative, controlling construction traffic patterns and haul routes, and covering or otherwise stabilizing fill material stockpiles will be implemented during construction.

Water Quality

- The contractor will be required to comply with the APDES CGP and prepare and implement a SWPPP (subject to DOT&PF approval and based on DOT&PF's Erosion Sediment Control Plan).
- BMPs will be followed, which includes placement of a turbidity curtain or another BMP in the Snake River before in-water construction begins; use of only clean fill material (10 percent in fines or determined by the project engineer) for the construction of the embankments; temporary installation of silt fencing during construction of embankments within wetlands; and re-vegetation of disturbed areas with native species.
- Work will be isolated from the flowing river as much as practicable, silt curtains or another BMP will be used, and the lowest segment of bank-armoring revetment will be placed first to minimize sediment release.
- In-water work will be limited to low-flow periods in the Snake River to minimize sediment discharge.

Construction

- Advance notice of construction and detours will be provided to airport users, and traffic will be rerouted around the construction area to the extent feasible.
- Haul routes, staging, and stockpiling will be planned to avoid and minimize impacts to airport users and local residents.

- Access via the Snake River will be coordinated locally and accommodated as much as possible to allow continued local user access to areas upstream of the construction.
- DOT&PF will coordinate with NMFS and ADF&G to establish appropriate mitigation for the temporary, construction-related impacts to EFH.
- DOT&PF will consult with ADEC, as detailed in the Final EA, to determine the most appropriate land-based dewatering method to avoid discharge of arsenic contaminated groundwater into the Snake River. If land-based methods are found to be impracticable, discharge would be in an ADECapproved manner and may include a permitted mixing zone for arsenic and sediment to safely introduce the discharge into an existing mining dredge pond on site or other approved water body (not within a public drinking source or fish habitat).

Aircraft Operations

- An air traffic control plan will be developed and implemented during construction.
- The construction contractor will notify the DOT&PF Project Engineer of any activities that would change available landing surface or NAVAIDs so this information can be broadcast to airport users. The Project Engineer will inform the DOT&PF Airport Manager who will coordinate and issue all required Notices to Airmen.
- Construction activities will be staged to minimize delays to aircraft or passengers.
- During construction periods that do not require partial runway closures, the construction contract will require the contractor to conform to FAA safety guidelines and avoid delays to aircraft or passengers.

Hazardous Waste, Pollution Prevention, and Solid Waste

- DOT&PF will require the construction contractor to develop a Hazardous Materials Control Plan (HMCP) to address storage and handling of hazardous materials, including fuel and lubricants, and spill response.
- Construction contracts will include a provision that if contaminated soil or groundwater is suspected or encountered during construction activities, the construction contractor will contact the DOT&PF Project Engineer and stop the work, so that the DOT&PF can coordinate with ADEC in accordance with 18 Alaska Administrative Code 75.300. All contamination will be handled and disposed of in accordance with an ADEC-approved corrective action plan.
- All solid wastes generated during construction will be disposed of at a permitted landfill.
- Material excavated in previously mined areas will only be used in an upland, non-environmentally sensitive location and will not be placed within 100ft. of water wells, surface waters and drainage ditches.

Historical, Archaeological, and Cultural Resources

• The construction contract will contain the provision, "Should cultural or paleontological resources be discovered as a result of this activity, all work that could impact these resources will halt and the DOT&PF Project Engineer and SHPO will be notified immediately." Work will not resume at these sites until Section 106 consultation is conducted with FAA and SHPO.

Fish, Wildlife, Plants, and Subsistence

• DOT&PF will comply with the Migratory Bird Treaty Act by either adhering to the USFWS recommended bird timing window of May 20th to July 20th or by sufficiently altering vegetated sites,

before migratory birds arrive to ensure that nesting habitat is not provided. Other methods approved by the USFWS could also be used.

- The proposed project will be conducted in compliance with the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. If an active eagle nest is encountered during construction, intrusive activities such as clearing will not proceed in the vicinity of the active nest until fledging occurs. If construction activities appear to disturb eagles, the USFWS Regional Office would be contacted.
- Impacts to fish will be minimized by using ADF&G-stipulated timing windows, using only clean fill, and isolating work areas where practicable.
- The instream flow rates specified in the ADF&G Snake River water reservation would be adhered to, in order to protect fish, wildlife habitat, migration and propagation.
- Finished slopes would be stabilized with rock or seeded with native grasses or other vegetative plantings. Seeding with native grasses or other vegetative planting in disturbed areas would reduce the risk of bank erosion and mimic existing conditions of the floodplain.

Wetlands

- The project footprint will be staked prior to construction and maintained for the duration of the project to avoid additional impacts to wetlands from construction activities.
- Embankment fill material will be stockpiled within the project fill footprint or upland areas of the airport to avoid impacts to wetlands.
- Setbacks from water channels and standing water will be maintained for refueling and vehicle maintenance activities to avoid impacts to the waterbodies from an accidental spill.
- DOT&PF will propose fee in-lieu compensatory mitigation to the USACE for the approximately 58.2 acres of wetland and waters of the U.S. impacts associated with the Proposed Action.

Required Permits and/or Approvals

- National Historic Preservation Act. Consultation with the State Historic Preservation Officer (SHPO).
- Endangered Species Act. Consultation with the U.S. Fish and Wildlife Service (USFWS).
- Clean Water Act.
 - USACE Section 10/404 permit for fill in wetlands and waters of the United States.
 - Alaska Pollutant Discharge Elimination System Construction General Permit for construction activities, pursuant to Section 402.
 - 401 Certificate of Reasonable Assurance to certify that the proposed project would meet State water quality standards.
- Alaska Water Use Act.
 - Alaska Department of Natural Resources (DNR), Division of Mining, Land and Water (DMLW) Temporary Water Use Permit for relocation of the Snake River.
- Alaska Administrative Code (11 AAC 51).
 - ROW agreement for relocation of the Snake River.
- Fish and Wildlife Coordination Act. Alaska Department of Fish and Game Division of Habitat Title 16 Fish Habitat Permit for construction in the Snake River.
- City of Nome Code of Ordinances. Chapter 11.50.030 Protection Against Flood Damage permit to develop in a flood plain area.
- City of Nome. Excavation/Fill permit.

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:

Byron K. Huffman, Manager, Airports Division, FAA Alaska Region Date

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FINAL ENVIRONMENTAL ASSESSMENT

Nome Airport Runway Safety Area Improvements State Project Number: 61413

Prepared for:

United States Department of Transportation Federal Aviation Administration 222 West 7th Avenue Anchorage, Alaska 99513-7587

On behalf of the sponsor:

State of Alaska Department of Transportation & Public Facilities Northern Region 2301 Peger Road Fairbanks, Alaska 99709

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

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Responsible FAA Official

10/23/12 Date

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SUMMARY

Nome Airport Runway Safety Area Improvements Project Final Environmental Assessment

AKSAS Project No. 61413

The basis of this Final Environmental Assessment (EA) is the Draft EA published in May 2012. A notice of availability of the Draft EA for public review was published in the local newspaper and announced in public service announcements on Nome community public radio. The notices also advertised a public meeting held in Nome which introduced the Draft EA to the public. The Draft EA public comment period closed May 31, 2012. No comments were received. Resource and government agency representatives were sent notification of the Draft EA availability and were requested to submit comments. Three parties submitted comments relevant to the content of the Draft EA.

In light of input received regarding the Draft EA, aspects of the Proposed Action have changed slightly, and more information has been provided to better explain the decisions made by the DOT&PF. The table below summarizes concerns about the analysis presented in the Draft EA and how the document has been revised in response. The table also references the specific EA chapters and sections where more complete information can be found.

Draft EA Comments Su	ummary		
Draft EA Topic of Concern Comment		Response/Location Where Found in Final EA (as applicable)	
Contaminated Soil (ADEC 5/29/12)	If ground-disturbing activities are to take place in areas of known contamination, it is recommended to submit a work plan including soil and groundwater sample collection locations. The work plan must indicate the process to follow if additional unexpected contamination is encountered. It is recommended to remove the minimum amount of soil possible within previously mined areas.	DOT&PF prepared and submitted a contamination cleanup work plan and will coordinate with DEC for the reuse of material excavated from disturbed/mined areas. See Appendix D for records of correspondence.	
	Reuse of material excavated from previously disturbed/mined areas must be discussed with and approved by DEC or a DEC-approved work plan for sampling may be implemented to determine whether arsenic levels in the soil are above background concentrations.	Material excavated in previously mined areas will only be used in an upland, non- environmentally sensitive location and will not be placed within 100ft. of water wells, surface waters and drainage ditches. See EA Chapter 4, Section 4.9 (<i>Hazardous</i> <i>Materials</i>) and Section 4.15 (<i>Environmental Commitments</i>).	

Draft EA Comments Su	ummary	
Stockpile Area Alternative Analysis (USFWS 6/04/12)	The information used to choose Site 1 does not seem to discount a practicable alternative for locating the stockpile area at Site 2. With reconsideration to the analysis criteria, we believe Site 2 would be the least environmentally damaging practicable alternative (LEDPA).	DOT&PF has re-evaluated the selection of Site 1 as the preferred alternative and concurs that Site 1 is not the only practicable stockpile area alternative and that both Site 1 and Site 2 would fulfill the purpose and need of the project. Therefore, because Site 2 would have fewer impacts to wetlands, DOT&PF has selected Site 2 as the preferred alternative stockpile site for the proposed project as well as the LEDPA.
Wetland Impacts and Permit Considerations (USACE 6/07/12)	The USFWS comments should be addressed before permit application. The USACE may only authorize a permit for the LEDPA and asks that sufficient rationale is included in the Final EA for the USACE to make a LEDPA determination during the permit process.	See EA Chapter 3, Section 3.1 (Alternatives Considered but Dismissed), Chapter 4, Section 4.13 Table 4 (Proposed Action Impacts to Wetlands and Waters), and Section 4.14 (Wetlands Avoidance, Minimization, and Mitigation Measures). Also see Appendix D for records of correspondence, Appendix E for wetlands avoidance and minimization analysis, and Appendix G for updated permit applications.

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- Appendix A Snake River Relocation Concept Design Report
- Appendix B Stockpile Area Options
- Appendix C EFH Assessment
- Appendix D Agency Coordination
- Appendix E Wetlands Avoidance and Minimization Analysis
- Appendix F Public Involvement
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Final Environmental Assessment Nome Airport Runway Safety Area Improvements State Project No. 61413

ACRONYMS

ABR	ABR, Inc.
ACMP	Alaska Coastal Management Program
ADEC	Alaska Department of Environmental Conservation
ADF&G	Alaska Department of Fish and Game
AHRS	Alaska Heritage Resources Survey
AIP	Airport Improvement Program
ALP	Airport Layout Plan
AOC	Areas of Concern
APDES	Alaska Pollutant Discharge Elimination System
APE	Area of Potential Effect
ARFF	airport recue and fire-fighting
BMP	Best Management Practice
CGP	Construction General Permit
cy	cubic yards
DMLW	Division of Mining, Land and Water
DNR	Alaska Department of Natural Resources
DOT&PF	Alaska Department of Transportation and Public Facilities
EA	Environmental Assessment
EDDA	Environmental Due Diligence Audit
EFH	Essential Fish Habitat
EMAS	Engineered Material Arresting System
ESA	Endangered Species Act
ESAs	Environmental Site Assessments
ESCP	Erosion and Sediment Control Plan
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
ft	foot or feet
HIRL	High Intensity Runway Lights
HMCP	hazardous material control plan
lf	linear feet
MIRL	Medium Intensity Runway Lights
MITL	Medium Intensity Taxiway Lighting
MOA	Memorandum of Agreement
NAVAID	Navigation Aid(s)
NCMP	Nome Coastal Management Plant
NRHP	National Register of Historic Places
NLUR	Northern Land Use Research Inc.
NMFS	National Marine Fisheries Service
NOTAMs	Notices to Airmen
OHW	ordinary high water
PAPI	Precision Approach Pathway Indicator
REIL	Runway End Indicator Lights
ROW	right-of-way
RSA	Runway Safety Area
SHPO	State Historic Preservation Office
SWPPP	Storm Water Pollution Prevention Plan
U.S.	United States

Final Environmental Assessment Nome Airport Runway Safety Area Improvements State Project No. 61413

U.S. Army Corps of Engineers
U.S. Department of Agriculture
U.S. Fish and Wildlife Service
U.S. Geological Survey
USKH Inc.
Visual Approach Slope Indicator

1.0 PURPOSE AND NEED

The Alaska Department of Transportation and Public Facilities (DOT&PF), in cooperation with the Federal Aviation Administration (FAA), proposes to improve the Nome Airport to enhance safety by bringing the runway safety areas (RSA) into compliance with FAA standards to the maximum extent practicable based on available funding. The City of Nome is located along the Bering Sea, on the south coast of the Seward Peninsula, facing Norton Sound. The Nome Airport is located northwest of downtown Nome, at 64.51055° North Latitude and 165.44452° West Longitude. The project area includes Sections 21-23 and 26-28, Township 11S, Range 34W, Kateel River Meridian, U.S. Geological Survey (USGS) Quad Nome C-1, (Figure 1).

The purpose of the proposed project is to improve the Nome Airport RSAs as required by congressional mandate. The RSA is a cleared area surrounding the runway to enhance safety and reduce the risk of damage to airplanes in the event of an undershoot, overshoot, or excursion from the runway. It also provides greater accessibility for fire-fighting and rescue equipment during such incidents. According to a Boeing Commercial Airplanes study published in 2005, 71 percent of the world's jet aircraft accidents between 1995 and 2004 occurred during landing and takeoff and accounted for 41 percent of all onboard and third-party (people on the ground) fatalities. Another study pointed out that in the seventeen months between October 2004 and February 2006, seven airplanes skidded off runways in Canada and the United States (U.S.) resulting in eight deaths, thirty-four injuries, and a complete loss of four aircraft. An aircraft that undershoots, overshoots, or veers off a runway into a safety area that meets FAA design standards has less chance of damage and a lower probability of loss of life.

As prescribed in FAA AC 150/5300-13, the RSA shall be:

- Cleared and graded and have no potentially hazardous ruts, humps, depressions, or other surface variations;
- Drained by grading or storm sewers to prevent water accumulation;
- Capable, under dry conditions, of supporting snow removal equipment, Airport Rescue and Firefighting (ARFF) equipment, and the occasional passage of aircraft without causing structural damage to the aircraft; and
- Free of objects, except for objects that need to be located in the RSA because of their function.

Congressional mandate (Public Law 109-115) requires all applicable airports to improve their RSAs in accordance with FAA design standards by December 31, 2015. FAA design standards allow for a reduced RSA alternative if it is not practicable to construct a standard RSA at an existing airport. The FAA-approved, non-standard RSA improvement would comply with public law.

Both the main and crosswind runways (RW 10-28 and RW 3-21, respectively) at the Nome Airport are currently classified as Transport Airport Reference Code C-III runways and service commercial jets. FAA design standards for this airport classification identify that safety areas around these runway types should be 500 feet (ft) wide and should extend 1,000 ft beyond each runway end (threshold). However, neither RSA at the Nome Airport meets FAA design standards.

1.1 Main Runway 10-28

The existing safety area of the main runway, RW 10-28, is deficient in width and length. The safety area width can be brought up to standards with minor grading and excavation along large portions of the

runway edge. The rest of the RSA would require fill or excavation. There is no safety area beyond threshold 10 and the graded area beyond threshold 28 is of deficient width and narrows to less than the runway width towards the east end (see Figure 2).

To meet FAA safety area design standards, it is necessary for the 500-ft-wide RSA to be extended 1,000 ft beyond each threshold. A decreased-length, non-standard RSA would be acceptable if the standard is not practicable. For this runway, a 170-ft-long RSA containing an Engineered Material Arresting System (EMAS) arrestor bed (designed for the minimum exit speed of 40 knots) would be practicable for a non-standard RSA if construction of a standard RSA was not practicable.

The Snake River flows around the west end (RW 10) of the main runway, creating a barrier to westward expansion of the runway. In order to accommodate required safety area improvements, it would be necessary to either shift the thresholds of the main runway east or realign a segment of the Snake River channel. Existing conditions at the Nome Airport are shown in Figure 2.

1.2 Crosswind Runway 3-21

The crosswind runway, RW 3-21, does not include any RSA length beyond either threshold, and the RSA width is only 300 ft (see Figure 2). To meet FAA design standards, it is necessary for RSAs to be constructed off the runway ends and the entire RSA width expanded to 500 ft to improve the crosswind runway in accordance with FAA safety area design standards.

The Snake River flows around the south (RW 3) end of the crosswind runway, creating a barrier to southward expansion of the runway. Either realignment of the Snake River channel or a threshold shift north would be required to facilitate improvement of the RSAs.

2.0 **PROPOSED ACTION**

The Proposed Action is shown on Figure 3 and includes the following elements:

- Improve both the main and crosswind runways to address RSA length and width deficiencies to the extent practicable:
 - ° Widen the RSA along both runways
 - ° Construct an RSA equipped with an EMAS bed for threshold 10
 - ° Shift the crosswind runway to the north by 600 ft to construct a non-standard 600-ft RSA for threshold 3
 - ° Construct 1,000-ft RSAs for thresholds 28 and 21
- Realign the Snake River around the proposed EMAS bed embankment west of the main runway (see Figure 4)
- Pave the north portion of the shifted crosswind runway to accommodate the shifted threshold and relocate navigational aids (NAVAIDS) for threshold 3 due to its shift
- Establish declared distances for the crosswind runway
- Relocate Construction Road and a utility line to accommodate the crosswind runway RSA expansion and threshold shift
- Construct drainage improvements that would affect Center Creek to the east of the crosswind runway and northeast of the main runway
- Develop a stockpile area, and improve an access road, for excavated material generated from the various project components
- Property acquisition (see Figure 5)

2.1 **Proposed Action Details**

Main Runway 10-28

The main runway at Nome Airport does not meet FAA safety area standards. The existing safety area is deficient in width but can be brought up to standards along a large portion of the runway length with minor grading and excavation. The rest of the main runway RSA would require more significant fill or excavation. There is no safety area beyond threshold 10 and the graded area beyond threshold 28 is of deficient width and narrows to less than the runway width towards the east end. To improve the safety areas, existing cleared areas along the north and south sides of the runway would be graded to create a 500-ft-wide RSA along the entire paved runway, with only minor deficiencies in width on the southwest end to avoid additional impacts to the Snake River. Additionally, threshold RSAs would be constructed at the east and west ends of the runway, respectively.

A 1,000-ft-long RSA would be built beyond the eastern end of the runway by grading and extending the existing cleared area to the width practicable without impacting the adjacent Seppala Drive. This RSA would be deficient in width on the south side for 500 ft on the east end to avoid impacts to Seppala Drive and the Snake River (see Figure 3).

A new 190-ft-long embankment off the western end of the runway would provide for a 170-ft-long RSA equipped with an EMAS. An EMAS is designed to stop an aircraft that overshoots a runway without causing structural damage to the aircraft. It consists of a bed of high-energy-absorbing, cellular cement

material that is designed to crush under the weight of aircraft and exert deceleration forces on the landing gear. To meet FAA design standards, the RSA should be widened to 500 ft along its entire length; however, if an RSA is equipped with EMAS, the width should correspond with the runway width plus enough area to slope the sides of the raised arrestor bed for emergency personnel access and safe passenger egress. A 150-ft-wide and 135-ft-long EMAS arrestor bed would be constructed on the paved RSA surface beyond the west threshold, with a 35 ft set-back/lead-in ramp. The north and south edges of the EMAS bed would slope for 10 ft to allow access for emergency personnel and safe passenger egress from aircraft. The RSA would include a 20-ft-wide paved access off the west end of the arrestor bed, a 15-ft-wide paved access on the north and south sides, and an additional graded area on the north side of the arrestor for maintenance and emergency vehicle access.

This alternative would result in the extension of the western embankment into the Snake River and would therefore require realignment of a segment of the river further west to accommodate the extension (Figures 3 and 4). The river would be realigned between approximately river miles (RMs) 2.1 and 2.3 and routed around the RSA expansion area in a modified 900-ft-long channel. A ditch on the north side of the main runway would be improved and drainage would continue to flow from the drainage to the Snake River as it does at present. The design of the realigned Snake River channel would maintain the existing cross-sectional area in this location, in order to mimic the existing hydraulic regime of the river. Therefore, the modified channel would have cross-sectional geometry, and flood flow and spring breakup ice flow conveyance characteristics similar to those of the existing river.

The maximum slope of the RSA embankment where it extends into the new river channel would be 2:1 (horizontal to vertical). The cut slope geometry on the outside of the bend across the river from the expanded RSA would be based on the existing cross-sectional geometry of the river, with a maximum slope of 3:1. Cut slopes above the ordinary high water line (OHW) would be revegetated with a seed mix appropriate for the region. The anticipated maximum depth of excavation for the proposed river realignment is approximately 25 ft. Construction dewatering would be required to manage groundwater within excavation limits. Approximately 24,000 cubic yards (cy) of excavated material would be generated from the river realignment. Usable material would be placed as fill on the new embankments of the main and crosswind runways. Unused excavated material would be stockpiled in a DOT&PF stockpile area proposed as part of the project (see Stockpile Area section below). River realignment would provide for feasible RSA improvements to comply with the congressional mandate by the 2015 deadline.

This alternative would comply with the congressional mandate to improve RSAs in accordance with FAA standards to the greatest extent practicable by providing a 1,000-ft long RSA on the east end of the runway and a 170-ft long RSA equipped with an EMAS on the west end of the runway. The Proposed Action would require acquisition of land and realignment of the Snake River for the west end RSA expansion. The Proposed Action would avoid impacts to the adjacent Seppala Drive at the east end of RW 10-28, and allow preservation of the existing instrument approach procedures.

Crosswind Runway 3-21

The crosswind runway does not meet FAA safety area design standards. The width of the existing RSA is deficient by 200 ft and lacks safety area beyond either threshold. To correct these deficiencies, the RSA would be widened to the standard 500 ft, except on the south end of the runway where it would follow the existing embankment to avoid additional impacts to the Snake River. Thresholds would be shifted 600 ft to the north for Runway 3 operations, providing a 600-ft non-standard RSA south of the shifted RW 3 threshold. The safety area on the north end would then be extended beyond the new Runway 21 threshold by 1,000 ft. Shifting the runway thresholds 600 ft north would also correct an existing FAA Flight

Standards deficiency by eliminating existing airspace obstructions, and ensuring that nighttime approach procedures for RW 3 would continue. Threshold 21 would be displaced to maintain its existing approach and continue use of existing NAVAIDS, which are impracticable to move for Runway 21 operations. The NAVAIDs for RW 3 would be relocated and the new 600-ft runway portion and shoulder surface due to threshold shift would be paved. This Proposed Action would also require relocation of a segment of Construction Road, part of the Center Creek channel, and a segment of a water utility line (see Utility Relocation section below). The existing drainage ditch west of the crosswind runway would also need to be moved further west to allow widening of the safety area. Approximately 280,000 cy of excavated material would be generated from the threshold shift and RSA extension. Usable material would be placed as fill on the new embankments of the main and crosswind runways. Unused excavated material would be stored in a DOT&PF stockpile area proposed as part of the project (see Stockpile Area section below).

Utility Relocation

Extension of the crosswind runway embankment to the north would require relocation of a Nome Joint Utility System's water line that currently runs along the existing Construction Road and east of the crosswind runway. Extension of the main runway embankment would require relocation of an underground power line from the west end of the runway to the localizer west of the Snake River. Both utilities would be realigned to allow construction of this project.

Drainage Improvements

Center Creek currently flows towards the northern threshold of the crosswind runway from the east and then flows to the south within a ditch that follows the eastern border of airport development. The creek joins the Snake River near RM 0.5. The existing ditch fills with thick deposits of aufeis (body of layered ice) during winter months, which creates a safety hazard for the crosswind runway and poses an airport maintenance issue. Furthermore, it is necessary that the proposed crosswind runway embankment extension be constructed at a lower elevation than the existing ditch and therefore this extension would be at risk of flooding during periods of high flow within the creek. Improvements to the ditch and access for maintenance are needed to resolve the aufeis and prevent flooding problems. Center Creek and the existing dike on its west side would be shifted east to provide a buffer between the waterway and the new crosswind embankment. A road immediately west of the rerouted ditch would provide access for aufeis management. Approximately 10-ft-tall dike would be constructed along the northern 900 ft of the ditch to ensure that flow and aufeis is routed away from airport surfaces. The rerouted stream would rejoin the existing conveyance just southeast of the existing Runway 21 threshold. Additional drainage improvements along the creek would be necessary near the threshold 28 end of the proposed main RSA to move the drainage away from the area that would be filled by the proposed embankment extension and to reestablish the ditch to connect flow to the Snake River.

Construction Road Relocation

Approximately 1,500 ft of Construction Road north of the existing threshold 21 would need to be relocated to allow for the crosswind RSA expansion and threshold shift.

Stockpile Area

A stockpile area near threshold 21 is proposed to provide a storage area for usable fill generated from excavation associated with the various components of the RSA Improvements Proposed Action. Any

excess material would be stockpiled for airport maintenance and operational needs. The stockpile site would be restricted to a size that would require as little additional property acquisition as possible and would be contiguous to airport property.

The Proposed Action would acquire land for the proposed stockpile area that would be constructed almost entirely within uplands, on a previously disturbed pad southwest of the relocated Construction Road. The stockpile area would be approximately 15 acres, and designed to accommodate all unused excavated material generated from the project. To reduce the attractiveness of the stockpile site to nesting migratory birds, the site will be graded to eliminate potential ponding of water and encourage runoff. The stockpile site would be accessed from the relocated Construction Road (Figure 3).

Property Acquisition

Acquisition of additional property is necessary to meet the needs of the airport and to accommodate the RSA improvements, infrastructure, and related elements of the Proposed Action. In addition, it's necessary to have control over lands associated with airspace approaches associated with airspace approaches needed to achieve better minimum airspace approach surfaces west of the main runway.

The proposed property acquisition would be a mixture of land purchase and avigation easement and covers the following types of land and airspace:

- Existing and planned airspace required for safe and efficient aircraft operations
- All other existing and planned airport elements, including the following:
 - ° Object Free Areas;
 - ° Runway Protection Zones;
 - [°] Areas under the airport airspace imaginary surfaces out to where the surfaces obtain a height of 35 ft above the primary surface; and
 - [°] Areas, other than those that can be adequately controlled by zoning, easements, or other means to mitigate potential incompatible land uses.

Most of the property proposed for acquisition is owned by a single proprietor, although several parcels are owned by the City of Nome, Sitnasuak Native Corporation, and Bering Straits Native Corporation. The lands proposed for property acquisition range from areas disturbed by past mining activity to areas of undisturbed wetlands. The maximum potential property boundary required to accommodate the RSA improvements and related elements of the Proposed Action is shown as the potential property acquisition on Figure 5. No property acquisition of homes or relocation of residences would occur as part of the proposed property acquisition. Any property acquisition in areas containing contamination would be avigation easement only. Proposed and potential property acquisition, avigation areas, and runway protection zones are shown on Figure 5.

2.2 Identification of Federal Action Requested

The requested federal actions include FAA approval of the ALP, FAA funding of the proposed improvements through the Airport Improvement Program (AIP) and property acquisition for right-of-way (ROW) as necessary for airport improvements as identified in this Environmental Assessment (EA).

3.0 ALTERNATIVES

The two alternatives considered in this EA are:

- 1. Proposed Action– Improve the RSAs of both the main and crosswind runways at the Nome Airport in accordance with FAA design standards to comply with Public Law 109-115.
- 2. No Action No change to the existing conditions at the Nome Airport.

3.1 Alternatives Considered but Dismissed

Multiple alternatives to address the safety area requirements were examined in a practicability study conducted by Northern Region DOT&PF and approved by the FAA (2010). Alternatives included using displaced thresholds (declared distances), installing a standard EMAS, relocating thresholds, and extending safety areas.

Alternatives involving substantial relocation of the Snake River were evaluated and dismissed. Three Snake River relocation alternatives were developed, two of them would accommodate a significant westward expansion of the main runway, and standard RSAs for both the main and crosswind runways:

- 1. The first alternative would reroute the Snake River more directly south from RM 3.7 and create a new river mouth 13,000 ft west of the existing harbor. The new river channel would be more than 14,000 ft shorter than the existing channel. Impacts would include decreased mixing efficiency of the existing estuary, differences between the hydraulic characteristics of the new and existing river channels, decreases in the Snake River drainage area and available fish habitat, increased travel distance for Nome residents to access the river for fishing and recreational use, and diminished recreational function of the river due to the loss of connectivity with city and the distance from the harbor and city. This option would require the construction of a beach access road and bridge, which would increase the project cost substantially. This alternative was dismissed due to the impractical cost and undesirable environmental and socioeconomic impacts associated with the creation of a new river mouth.
- 2. Alternative 2 considered a substantial relocation of the Snake River that would reconnect with the existing river. The new river channel would diverge from the existing river valley and channel at approximately RM 3.7 and be routed to the south and east beyond the projected western end of the maximum expansion of the main runway, and would rejoin the existing channel of the Snake River a short distance downstream of the expanded crosswind runway. This relocation would avoid the proposed maximum expansion of the crosswind runway by intersecting a mining pit pond southwest of the crosswind runway. Relocation of the river through the pond would require construction of a new access road for properties west of the pond. Although the difference in hydraulic characteristics between the new and existing river channels would be negligible, and impacts to fish habitat and the estuary would be temporary or minor, the high estimated cost of this alternative led to its dismissal.
- 3. Alternative 3 evaluated a reduced Snake River relocation alternative that was established as the preferred option. Several versions of this alternative were evaluated in detail. The version that was being evaluated at the time of dismissal would have created approximately 4,700 ft of new river channel, and would have accommodated future expansion of the main runway. The alternative was ultimately dismissed due to economic infeasibility, particularly with respect to construction dewatering and property acquisition costs.

Details of the Snake River relocation alternatives design process and relocation options are included in the *Nome Airport RSA Expansion, Snake River Relocation Concept Design Report*, found in Appendix A.

RSA Improvement Alternatives for RW 10-28

Implementing declared distances on the main runway to gain a standard RSA, under the existing condition where there is no RSA beyond either threshold, would reduce the available landing distance by the amount of RSA declared. This alternative was dismissed since a decrease in runway length would negatively impact airport function and consequently the Nome community. The rejection of this alternative is justified by an amendment to Public Law 108-176, which states that airports in Alaska are not required to reduce runway length in order to meet RSA standards. Many Alaskan communities are dependent on jet traffic for transportation of food and goods in addition to passenger travel. Decreasing runway length to improve safety area would disallow normal jet traffic to many communities, creating socioeconomic and accessibility issues across the state.

If conditions preclude construction of a standard 1,000-ft-long and 500-ft-wide RSA beyond a runway threshold, an RSA equipped with an EMAS built to standard criteria is considered equivalent to the standard RSA for overrun protection. It requires at least 600 ft of safety area beyond the runway threshold and does not provide undershoot protection for approach landings. To construct an EMAS bed to standard criteria beyond threshold 10 would require either a decrease in runway length or a Snake River relocation with substantial excavation and dewatering requirements. The estimated construction cost of a 20-year life cycle standard EMAS bed combined with the costs of the necessary embankment construction and relocation of the Snake River to create space for the EMAS bed, would cost substantially more than the proposed alternative.

A shift of the main runway threshold to the east to create space for the RSA would move the approach surface closer to developed areas, introducing new airspace obstructions and degrading the current instrument approach procedures. The result would negatively affect the ability of airlines to provide reliable service to Nome. Furthermore, shifting RW 10-28 to the east to create a full length, full width RSA would require relocation of Seppala Drive, Center Creek Road, and the existing development at the east end of the runway, and would require channel modification of the Snake River just northwest of the Nome Harbor near RM 0.5.

An alternative that would construct a bridge to create RSA spanning the Snake River raised concerns of delayed thaw of the river ice under what would be a large bridge structure, promoting flood conditions during spring breakup. A bridge may also create significant riverbed scour effects, disturb salmon migration, and affect navigability of the river. In addition to these concerns, the cost of this option is prohibitive. The cost of bridge construction alone is estimated at five times the total funding allowance set forth by FAA, and further cost would likely be incurred with the probable need to raise the existing runway to accommodate the bridge. Cost analysis for this alternative is located in Appendix A of the *Practicability Study Nome Airport Safety Area* (DOT&PF 2010).

Complete relocation of the main runway to an area just northwest of the airport was evaluated and dismissed in the *Nome Airport Master Plan Update* due to a combination of factors, predominantly a lack of available funding. This alternative would provide for a full RSA on the main, relocated runway and the opportunity for future airport growth beyond the runway length currently identified in the draft *Nome Airport Master Plan Update* (PDC 2010). It would also move the main runway outside the 100-year floodplain of the Snake River. This alternative was eliminated by the potential environmental impacts, the timing, and largely due to the high costs associated with construction and maintenance and operations,

especially those resulting from infrastructure additions (taxiways, apron, and access roads) that would be necessary to support runway relocation.

RSA Improvement Alternatives for RW 3-21

An alternative that would accommodate a full RSA for RW 3-21 and requires relocation of the Snake River was evaluated and dismissed. The only practicable channel route south of the crosswind runway included undesirable environmental and economic impacts associated with rerouting the river through a mining pit pond (see Figure 2), which would have required significant buttressing and erosion control along the southern flank of the pond to prevent the development of a new, unwanted river mouth. Excavation, dewatering, and erosion protection costs to create the new channel contributed to an estimated total cost that far exceeded economic feasibility.

An alternative that would shift RW 3-21 to the north to provide space for a full 1,000-ft RSA for threshold 3 was dismissed due to the prohibitive cost associated with rehabilitating hazardous waste sites located on land that DOT&PF would need to acquire for this alternative.

Stockpile Area

Safety improvements at the Nome Airport as identified in the Proposed Action would generate a large amount of excavated material, which would require disposal. It is anticipated that construction of the crosswind runway embankment alone would result in approximately 280,000 cy of excavated material. Although a large portion of this excavated material would not be used for this proposed project, much of it is expected to be useable and could be stockpiled for reuse for maintenance activities and for supporting development and growth objectives of the Nome Airport. Therefore, a stockpile site is needed to provide storage for the excess excavation associated with the Proposed Action. Preferably, the stockpile site would be close to the area generating the most excavation and could also be utilized in the future for other aviation purposes.

Several options for disposal of excavated material generated by the project were evaluated and dismissed:

- Use as cover for the Nome landfill
- Contractor responsible for disposal
- Development of an off-site stockpile area away from proposed airport property boundaries within previously undisturbed areas

Disposal of material at the Nome landfill is not feasible due to the large quantity of material that would need to be disposed of versus the relatively small amount of material that is needed for cover. Furthermore, material disposed of at the landfill would not be available for maintenance activities and future airport projects.

Contractor responsibility for material disposal was dismissed since the large amount of excavated material generated from the proposed project would be usable, and stockpiling the material for future use could lower costs of future airport projects. Additionally the environmental effects of the disposal site needed to be evaluated as an element of the project under this environmental assessment.

Four options to develop an off-site stockpile area were evaluated in the Draft EA for project feasibility and potential environmental impacts. Three of the stockpile site options were dismissed for various reasons, including: potential to delay the project schedule beyond the 2015 deadline due to required clean-

up of contamination; length of haul route and distance from the airport that would make the site less likely to be used for winter snow storage and result in greater environmental impacts; need to construct new or improve existing access roads that would result in greater environmental impacts and increase the development cost of the site; the location would not be compatible with the *Airport Master Plan Update* and would not provide a contiguous area to conduct airport operations; and high ROW costs and high uncertainty in ROW costs that would make the land purchase not practicable. Details of the stockpile area options, discussions of their feasibility, and the selection matrix presented in the Draft EA can be found in Appendix B.

Since publication of the Draft EA, after considering agency comments, DOT&PF has re-evaluated the selection of Site 1 as the preferred alternative and looked at factors such as identified existing airport needs and practicability issues related to topography, land use compatibility, access, and site distance. After re-evaluation of the sites the DOT&PF concurs that Site 1 is not the only practicable stockpile area alternative and that both Site 1 and Site 2 would fulfill the purpose and need of the project. Therefore, because Site 2 would have less impacts to wetlands, DOT&PF has selected Site 2 as the preferred alternative stockpile site for the proposed project as well as the Least Environmentally Damaging Practicable Alternative (LEDPA). Site 2 is therefore presented in the Proposed Action alternative in the Final EA.

3.2 Alternative 1: Proposed Action

The Proposed Action is to improve the Nome Airport RSAs to enhance the safety of the Nome Airport before December 31, 2015, in accordance with FAA design standards to comply with a congressional mandate. This action reconciles design standard deficiencies with less harmful environmental, social, and economic impacts than other alternatives initially considered but dismissed.

Main Runway

The Proposed Action would provide the main runway with a standard length RSA beyond threshold 28 and for threshold 10, a 170-ft-long RSA equipped with EMAS, developing this RSA, on the west end of the runway to the maximum extent practicable. The existing cleared area would be graded to create a 500-ft-wide safety area along the entire paved runway, with only minor deficiencies in width on the southwest end. The 1,000-ft-long RSA beyond threshold 28 would be 500-ft-wide, except for 500 ft on the southeast end to avoid impacts to the adjacent Seppala Drive. A new 200-ft-wide and 190-ft-long embankment of the western end of the runway would provide for the 170-ft-long RSA equipped with an EMAS. This RSA beyond threshold 10 would be 170 ft wide, the standard width for an EMAS RSA given the main runway's width of 150 ft. Paved area around the EMAS arrestor bed would allow for maintenance and emergency vehicle access. The extension of the western embankment would require realignment of a segment of the Snake River further west to accommodate the extension. An existing ditch on the north side of the main runway would preve the existing instrument approach procedures and avoid impacts to Seppala Drive at the east end of RW 10-28.

Crosswind Runway

The Proposed Action would provide the crosswind runway with a standard 1,000-ft threshold RSA on the northern end of the runway and to the maximum extent practicable, a non-standard 600-ft southern threshold RSA for RW 3 operations. The RSA would be widened to the standard 500 ft, except on the

south end of the runway where it would follow the existing embankment in order to avoid additional impacts to the Snake River (Figure 3). To accommodate the new RSAs, the northern embankment of the crosswind runway would be extended 1,600 ft and the runway thresholds would be shifted 600 ft to the north. Approaches from the north would use declared distances and displaced thresholds. This would allow aircraft approaching from the north to use the existing threshold locations for continued use of the existing NAVAIDS and the existing available runway length. Approaches from the north would have 1,600 ft of undershoot RSA, but the present condition of no overrun protection would persist. The southern threshold safety area would be a non-standard length of 600 ft for approaches and take-offs from the south; however, the threshold shift north would also allow the airport to maintain nighttime approach procedures from the south because it would eliminate airspace obstructions to correct a current FAA Flight Standards deficiency. If these obstructions are not eliminated or the threshold is not shifted, landing from the south would be eliminated outside of daylight hours when the approach is evaluated. NAVAIDS for RW 3 would be relocated and the new 600-ft runway and shoulder surface on the north end would be paved due to the threshold shift. The existing drainage ditch west of the crosswind runway would be moved further west to allow widening of the safety area.

The Proposed Action would require ROW acquisition to improve the RSAs. It would also require realignment of the Snake River to accommodate the western RSA expansion of RW 10-28, relocation of a segment of Construction Road, portions of the Center Creek channel, and a segment of a water utility line, to accommodate the northern embankment extension of RW 3-21. The preferred disposal area would be constructed west of the relocated Construction Road within previously disturbed areas and be designed to accommodate all unused excavated material generated from the project. The disposal area would be accessed from the relocated Construction Road (Figure 3).

Permits or Clearances

The 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:

- U.S. Army Corps of Engineers (USACE) Section 404/10 permits for fill in wetlands
- Alaska Department of Environmental Conservation (ADEC) Division of Water 401 Certificate of Reasonable Assurance for fill in wetlands
- Alaska Department of Natural Resources (DNR) Division of Mining, Land and Water (DMLW) Temporary Water Use Permit for relocation of the Snake River
- DNR ROW agreement for relocation of the Snake River
- Alaska Department of Fish and Game (ADF&G) Division of Habitat Title 16 Fish Habitat Permit for work occurring in the Snake River
- Section 106 consultation with the State Historic Preservation Officer (SHPO)
- Section 7 consultation with the U.S. Fish and Wildlife Service (USFWS)
- City of Nome Excavation/Fill Permit
- City of Nome Permit to Develop in a Floodplain Area

The project would involve more than 1-acre of ground disturbance from construction activities and has the potential for storm water discharge to adjacent wetlands and waters. The construction contractor and DOT&PF would be required to conduct all construction activities in compliance with the ADEC Alaska Pollutant Discharge Elimination System (APDES) General Permit for Construction activities in Alaska. A Storm Water Pollution Prevention Plan (SWPPP) would be developed by the contractor, reviewed by DOT&PF, and implemented throughout construction.

3.3 Alternative 2: No Action

The No Action alternative would not meet the purpose and need to improve the Nome Airport RSAs to the extent practicable in accordance with FAA design standards as required by congressional mandate ensuring, in the event of an overrun or undershoot, safe operations at the Nome Airport. No improvements would occur under this alternative and all existing deficiencies present at the Nome Airport would remain. Currently, both runways lack any safety area beyond the thresholds and the RSA width of both runways is deficient. The No Action alternative would not provide for RSA improvements and the Nome Airport would not acquire compliant status in regards to Public Law 109-115, which states that all applicable airports must improve their RSAs to comply with FAA design standards by December 31, 2015. Additionally, the No Action alternative would not allow the airport to maintain nighttime approach procedures from the south because it would not eliminate airspace obstructions to correct a current FAA Flight Standards deficiency. If these obstructions are not eliminated or the threshold is not shifted, landing from the south would be eliminated outside of daylight hours next time the approach is evaluated.

Permits or Clearances

No permits or clearances would be needed under the No Action Alternative.

4.0 AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES, AND MITIGATION

4.1 Overview

This section describes the existing environment that would be affected by the Proposed Action, and establishes a baseline for the comparison and selection of alternatives organized by resource categories identified in FAA Order 1050.1E and 5050.4B.

This section also analyzes the environmental impacts of the Proposed Action and the No Action Alternative in terms of direct, indirect, and cumulative effects. Direct effects are caused by the action and occur at the same time that the action occurs, whereas indirect effects are caused by the action but occur later in time or are farther removed in distance. Cumulative impacts are the impacts on the environment that result from the incremental impacts of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions. Past projects used in the evaluation of cumulative impacts for the Proposed Action include annual dredging to maintain safe navigation depths within Nome Harbor and lower Snake River, recent developments at the harbor including the construction of a floating dock and barge ramp, the construction of a new Snake River mouth in 2005 and breakwater in 2006, and previous relocation of the Snake River associated with airport development. The extensive placer mining history of the area and its effect on wetland habitat and the Snake River is also considered.

The only reasonably foreseeable future projects considered in the analysis include: the Snake River bridge replacement, Nome Airport runway rehabilitation, Nome Airport apron improvements, and other airport projects related to near-term actions in the *Nome Airport Master Plan Update*. Lands adjacent to the Proposed Action are privately owned and may be developed at a future date. However, proposed plans or permits for any future mining on these lands have not been identified and therefore, future development on adjacent lands is not incorporated in the evaluation of cumulative impacts. Cumulative impacts are not evaluated for the No Action Alternative since this alternative does not change the existing environment.

This EA is issue based, meaning that only resource categories that were identified as an issue through project evaluation and agency and public involvement are evaluated in detail. Table 1 summarizes the resource categories that were identified as non-issues and are therefore not evaluated further in this EA:

Resource Category	Evaluation		
Air Quality	 Nome has no non-attainment areas for national air quality criteria pollutants and does not have a State Implementation Plan for any air quality concerns. Based on FAA guidelines it is not necessary to include a discussion of Air Quality for such airports. 		
	• No air quality analysis is needed for the Proposed Action because forecasted operations in the study period are less than 1.3 million passengers and less than 180,000 operations annually.		
	Temporary impacts from construction are described in Section 4.5.		
Farmlands	• There are no prime or unique farmlands in Nome, as defined by the Farmland Protection Policy Act of 1981, Public Law 97-98.		
Natural Resources and Energy Supply	 The Proposed Action would not change the energy requirements for Nome. Fill material, construction materials, and natural resources are required for construction. Adequate supplies are expected to be available within local 		

Table 1 – Non-issue Resource Categories

	material sites. The Proposed Action would not cause demands exceeding
	available or future natural resource or energy supplies.
Light Emissions and Visual Impacts	 The Proposed Action would not change the overall visual character of the airport or increase light emissions. No concerns about light emissions have been raised by the community. The visual or aesthetic resources of the project area range from disturbed lands consistent with industrial use to undisturbed lands comprised of tundra and river habitat. The visual effects of the Snake River realignment would be temporary in nature- once the channel has normalized, the new alignment would closely resemble the existing Snake River as much as practicable.
Noise	• Only minor changes in flight operations and use of property are expected to result from the Proposed Action; therefore no significant noise impact is anticipated. Temporary impacts from construction are addressed in Section 4.5
Secondary (Induced) Impacts	• No changes or shifts of population movement or growth, public service demands, or changes in business and economic activity are expected as a result of the project.
Socioeconomic Impacts, Environmental Justice, and Children's Environmental Health and Safety Risks	 The Proposed Action would not permanently relocate any residence or business, alter surface transportation patterns, divide or disrupt established communities, disrupt planned development, or create an appreciable change in employment. No federally recognized tribal governments would be negatively affected by any alternative. The Proposed Action would be compatible with existing land uses, zoning, and community planning and development goals. The Proposed Action would minimally alter surface transportation patterns. Construction Road would be rerouted to connect with Center Creek Road at a location just north of the existing junction and one airport maintenance access road would be eliminated. Traffic patterns would not be significantly affected. Transportation corridors along the river used to access subsistence and recreation areas would be maintained. Construction impacts (see Section 4.5) would be temporary and have minimal impacts on the nearby residents. There would be no adverse effect at a disproportionately higher level on low income or minority populations than it would have on other population segments. The Proposed Action would not adversely affect children's health and safety.
Wild and Scenic Rivers	• There are no designated state or federal wild or scenic rivers in the vicinity of Nome. (http://www.rivers.gov/wildriverslist.html#ak)

4.2 Coastal Resources

Affected Environment

The project area lies within the former Alaska Coastal Management Program (ACMP), Nome Coastal District. The ACMP, which expired on June 30, 2011, required federal actions to be consistent with state policies and therefore ensured state and local interests were considered in coastal resource management decisions. Although no longer regulatory, the *Nome Coastal Management Plan* (NCMP; Nome Coastal District, Nome Planning Commission, Bechtol Planning and Development 1984, amended 2006) may be used to identify potential adverse impacts to coastal resources.

The NCMP designated areas within the district for certain types of land use or activities. The NCMP designated marine waters, tidelands and tidal flats, and a portion of the Snake River, within non-federal

areas of the Nome City limits, as subsistence areas. It also designated the Snake River and its estuary as an important habitat area.

Proposed Action

Direct and Indirect Impacts: The Proposed Action would temporarily impact the Snake River and its estuary, which was previously designated as an Important Habitat/Subsistence area by the NCMP. The designation is not effective since the ACMP expired. Impacts to the river and estuary would be limited to a temporary decrease in water quality and fish habitat during construction (see Section 4.5). No permanent impacts to coastal resources are anticipated.

Cumulative Impacts: Annual dredging of the lower Snake River and harbor for navigation safety, causes short-term impacts to coastal resources by reducing water quality and short- and long-term impacts to fish habitat. Temporary impacts during construction of the Proposed Action may contribute to cumulative water quality and fish habitat impacts if dredging downstream occurs within the timeframe of increased sedimentation from the channel realignment. However, impacts to these resources would be temporary in nature as the realigned river channel is expected to normalize within a year, and the Proposed Action would not contribute to long-term cumulative impacts. The cumulative impacts of the Proposed Action, past, and reasonably foreseeable projects are not anticipated to have a substantial impact on coastal resources.

No Action Alternative

The No Action Alternative would have no effect on coastal resources.

4.3 Compatible Land Use

Affected Environment

The Snake River was previously designated as a subsistence and important habitat area by the NCMP but the designation is no longer effective (see 4.2). The DNR, *Northwest Area Plan* requires that anadromous waters within the area are to be managed to protect their habitat values, although uses can be authorized if these values are protected. All other land in the project area is zoned for transportation, industrial, or resource development (defined in the Nome Zoning Code, 2008 and *The Nome Comprehensive Plan, Phase I*, 2003). Goals of the Nome community as outlined in the *Bering Strait Comprehensive Economic Development Strategy* 2009-2012 are to use the land in a manner that provides for orderly and efficient community growth, including adequate opportunities for recreation.

Most of the property proposed for acquisition is owned by Nome Gold Alaska Corporation, precious metals exploration and development company, although several parcels are owned by the City of Nome and Sitnasuak Native Corporation, and Bering Straits Native Corporation. The lands proposed for property acquisition range from areas disturbed by past mining activity to areas of undisturbed wetlands. To minimize the amount of property acquired by DOT&PF, the proposed property boundary incorporates only a portion of a property when the entire parcel is not required to accommodate the RSA improvements and related actions. However, additional acquisition of property may be required should the appraisal or negotiation process determine that an entire parcel should be purchased in order to complete an equitable transaction; this potential property acquisition would become the airport boundary should the maximum amount of property acquisition be necessary. Proposed and potential property acquisition, avigation areas, and runway protection zones are shown on Figure 5.

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Proposed Action

Direct and Indirect Impacts: The Proposed Action would be compatible with existing land uses, zoning, and community planning and development goals. The Snake River realignment would be designed and constructed to maintain the cross-sectional area of the existing channel in that segment in order to mimic the existing hydraulic regime of the river. The realigned river is expected to provide the same habitat values as it does currently. Transportation corridors used to access subsistence and recreation areas along the river would be maintained. All land parcels that would be acquired to construct the RSA improvement and related elements of the Proposed Action are zoned for industrial use. A parcel that is acquired, or for which a ROW or avigation easement is obtained, to ensure the airspace is free of obstructions around the developed surfaces of the airport would not be developed. No property acquisition of homes or relocation of residences would occur as part of the proposed property acquisition. Any property acquisition in areas containing contamination would be avigation easement only. All avigation easement parcels and parcels obtained for construction of the Proposed Action would be within existing State-owned airport property or property zoned for industrial use.

Cumulative Impacts: The project is consistent with the land use plans outlined in The *Draft Nome Airport Master Plan Update* (DOT&PF 2010), The *Nome Comprehensive Plan, Phase I*, 2003 and the *Bering Strait Comprehensive Economic Development Strategy* 2009-2012 and therefore is not expected to contribute to cumulative impacts to compatible land use.

No Action Alternative

The No Action Alternative would have no effect on compatible land use.

4.4 Department of Transportation Act, Section 4(f)

Affected Environment

Portions of two Section 4(f) resources are within the proposed project's area of potential effect. SHPO concurred with DOT&PF's determinations that the Nome Dredge No. 6 Historic Mining District (NOM-243) and the Samuelson Trail (NOM-244) are eligible to the National Register of Historic Places (NRHP). SHPO also concurred that there would be no adverse effect to the resources.

Proposed Action

Direct and Indirect Impacts: Under Section 4(f) of the Department of Transportation Act of 1966, currently codified as 49 USC Section 303(c), the project would constitute a physical use under Section 4(f) because the proposed project permanently incorporates a portion of NRHP eligible properties (NOM-243 and NOM-244) for project purposes through acquisition or easement. The DOT&PF has consulted with FAA on a finding of *de minimis* impact on the Nome Dredge No. 6 Historic Mining District and the Samuelson Trail. Since the only action proposed in the historic district and trail is land acquisition, needed to secure ROW interests; and because DOT&PF has determined that the Proposed Action would result in no adverse effect on historic properties, the FAA made a *de minimis* impact finding under the provisions of 49 USC Section 303(d). SHPO did not object to FAA's *de minimus* impact finding under the provisions of 49 USC Section 303(d).

4.5 Construction

Proposed Action

Direct and Indirect Impacts: Construction impacts would be local in nature and temporary. It is expected that construction would occur over two or three full construction seasons. Material sites would be provided by the contractor from permitted material sites. It is anticipated that existing, local commercial material sites would be used and that no site expansion or permitting would be necessary. Material extraction and hauling to the new airport site or upland stockpile areas could occur in summer or winter. The Proposed Action would cause the following temporary construction impacts:

Noise – Construction machinery and vehicle activity would temporarily increase noise at the airport and along material haul routes. There would be a temporary impact due to construction noise. The closest residences are approximately 0.03 miles from the area of construction and may experience some construction noise during improvements to the safety area beyond threshold 28 of the main runway. Some residences are located directly adjacent to potential haul routes and would experience a temporary and minor increase in traffic noise during construction of the Snake River realignment.

Air Quality – The operation of heavy equipment and hauling fill material can create dust during dry conditions, which may cause temporary air quality impacts. This effect would be temporary and would be controlled by the use of best management practices (BMPs) to reduce dust during construction.

Water Quality – Increased sedimentation in the Snake River and the relocated Center Creek would occur during construction of the embankment for the EMAS. Water quality would be maintained to the highest degree possible during construction by use of BMPs such as isolation of work from the flowing river as much as practicable and as necessary, the use of silt curtains and placement of the lowest segment of bank-armoring revetment first in order to minimize sediment release into the river. Since the project requires more than 1-acre of ground disturbing activities, the DOT&PF and contractor as co-applicants would seek coverage under the APDES general permit and prepare a SWPPP for this project. Construction dewatering may be required for this project. Discharge water may contain elevated levels of naturally occurring arsenic above the ADEC clean-up limits. DOT&PF is in consultation with ADEC to determine the most appropriate land-based disposal method to avoid discharge of arsenic contaminated groundwater into the Snake River and DOT&PF will comply with DEC protocol. If land-based methods are found to be impracticable, discharge would be in an ADEC-approved manner and may include a permitted mixing zone for arsenic and sediment to safely introduce the discharge into an existing mining dredge pond on site or other approved water body. Discharge of dewatered groundwater would not take place within a public drinking source or fish habitat. Although ADEC reports that low levels of dieselrange organics and benzene have been detected in the sediments of the Snake River, no adverse effects are expected from the temporary increased sediment load in the water column.

Essential Fish Habitat – Construction of the Proposed Action would cause short-term effects (on the order of hours to months) on Essential Fish Habitat (EFH) in the Snake River. Increased sediment and turbidity resulting from construction activities would minimally affect EFH (inhibition of feeding success for some number of days) for juvenile salmonids, groundfish, and sculpins that may be present in the lower Snake River and in Nome Harbor. Adverse effects would be minimized by conducting aspects of work with the greatest potential for sediment generation outside of major juvenile salmon outmigration windows. Some reduction of habitat quality is expected in the realigned portion of the river channel in the short term, but is not expected to adversely affect EFH species and in the longer term, riparian conditions outside the EMAS armor rock may be improved over the existing disturbed conditions through revegetation and

seeding. Construction noise may cause fish present in the area of construction to move away from the work area, but is not expected to adversely affect EFH species. Discharge of dewatered groundwater would not take place within fish habitat. Any adverse effects to EFH or EFH-managed species would be localized and minimal and would not reduce the overall long-term value of EFH in Norton Sound. DOT&PF will coordinate with the National Marine Fisheries Service (NMFS) and ADF&G to establish appropriate mitigation for the temporary, construction-related impacts to EFH. With mitigation to offset minor adverse effects, it is expected that the Proposed Action would not adversely affect EFH (see the EFH Assessment in Appendix C for more details).

Fisheries, Subsistence - There would be temporary and localized impacts to subsistence fishing resulting from limited river access in the immediate project area while construction in the Snake River channel occurs. River travel by boat through the project area may be restricted for two to three months (there may be some periods of access during that time) while in-water portions of the RW 10 embankment expansion and Snake River realignment are completed. The Snake River downstream of the project area would have normal access from the Nome Harbor or other downstream launch sites. Boat launch to access the river upstream of the project area would be available where the Nome-Teller Highway crosses the Snake River, about 6 miles north of the Nome Harbor. Navigation through the project portion of the Snake River would be coordinated locally and accommodated as much as possible during construction to allow continued local user access to areas upstream of the construction via boat and snowmachine (depending on time of construction). Discharge of dewatered groundwater would not take place within a public drinking source or fish habitat. Adult salmon migrations and spawning are not expected to be impacted by construction; therefore, fish yields on either side of the construction area would likely not be affected.

Access - Temporary interruptions to road access during construction would occur. Construction Road would experience temporary traffic changes. Traffic would be re-routed around the construction area during construction and temporary delays may occur. Access via boat to areas upstream of the airport along the Snake River would be temporarily interrupted during construction of the realignment. To ensure safety during construction, there may be temporary restrictions to navigation of the Snake River for two to three months in the immediate project area during construction of the river realignment and RW 10 embankment expansion portions of the project.

Airport Operations - Temporary vehicle and aircraft traffic delays and detours would occur during construction activities, but are expected to be minimal. Haul routes, staging, and stockpiling of construction materials would be planned to avoid or minimize impacts to users.

Cumulative Impacts: No other airport projects are concurrently scheduled with the construction of the Proposed Action; however, a Snake River Bridge replacement project began construction in the summer of 2012 and is expected to continue through fall 2015. The bridge project is located near RM 0.4 of the Snake River. Although the construction footprints of the two projects do not overlap, both would temporarily affect the water quality of the Snake River. The Snake River Bridge project would place permanent and temporary fill into the Snake River and adjacent wetlands, which would temporarily decrease the river's water quality and available fish habitat. However, permanent fill in the river and adjacent wetlands would be minimal (less than 1-acre) and the in-water work would be completed before the start of the Proposed Action, allowing water quality in the Snake River to normalize before the start of the proposed river realignment in 2013. Construction phasing of the two projects would separate the periods of temporary impacts to fish habitat are anticipated and no contribution to cumulative fish habitat impacts is expected.

Rehabilitation of the main runway and apron improvements are two airport projects planned for the reasonably foreseeable future; however, these projects are not expected to affect Snake River water quality, traffic patterns, or produce substantial construction impacts of any kind.

No Action Alternative

The No Action Alternative would have no construction impacts.

4.6 Fish, Wildlife, and Plants

Fish

Affected Environment

The Snake River is a catalogued anadromous stream (ADF&G Stream No. 333-10-11200) that provides habitat for all five species of Pacific salmon as well as resident Dolly Varden (*Salvelinus malma*), two species of white fish (*Coregonus* spp.), and is considered EFH. The Snake River chum salmon has been designated as a stock of yield concern (as defined in the *Policy for the Management of Sustainable Salmon Fisheries*, 5 AAC 39.222(f)(42)) since 2007 when it was down-listed from a management concern. In addition to providing habitat for salmon, whitefish, and Dolly Varden, the Snake River supports Arctic grayling (*Thymallus arcticus*), burbot (*Lota lota*), ninespine stickleback (*Pungitius pungitius*), and slimy sculpin (*Cottus cognatus*) for a portion of, or all of their spawning, incubation, rearing, and passage of life phases.

ADF&G holds instream water flow reservation rights for the Snake River for the purpose of maintaining specified instream flow rates to protect fish and wildlife habitat, migration, and propagation. The water reservation of the river includes all connected sloughs, side channels, floodplains, and potential future diversions/redirections for the first 10 miles of the Snake River ending at the confluence of the Snake River and Russell Creek (DNR, 2011).

Juvenile salmon from the Snake River may use the nearshore and Nome Harbor area during their spring outmigration, feeding along marine shorelines before moving into offshore waters. Nome Harbor provides EFH for juvenile and adult salmon on their migrations between freshwater and marine habitats, and likely provides EFH for red king crab, cottids, and possibly other fish species.

Proposed Action

Direct and Indirect Impacts: No permanent effects to EFH or EFH-managed species are expected since the realigned channel segment would be relatively small, roughly equivalent in length to the existing channel, and would be engineered to mimic the existing floodway cross section and to resist erosion. No impacts to adult salmon migrations and spawning are expected. The only potential adverse impacts to EFH and EFH-managed species are related to construction of the Proposed Action; these localized and minor impacts are discussed in section 4.5. The EFH Assessment (Appendix C) discusses the potential impacts to fish in detail, and concludes that adverse effects to EFH managed salmon would be localized to Snake River stocks, affect only a single year class, and would be minor in severity.

A 2009 report to the Alaska Board of Fisheries recommends that chum salmon habitat loss surveys be conducted in association with new channel development in the Snake River (Menard and Bergstrom, 2009). Some of the dismissed alternatives for the Snake River relocation included substantial Snake River

channel relocations, which may have had permanent impacts to EFH, and therefore likely would have warranted salmon habitat loss surveys. The Proposed Action realigns only a small portion of the river and is not expected to significantly impact EFH in the short- or long-term, nor would it permanently reduce available EFH. Chum salmon habitat loss surveys are not planned in association with this Proposed Action.

The Proposed Action is not expected to decrease water flow in the Snake River. The instream flow rates specified in the ADF&G Snake River water reservation would be adhered to, in order to protect fish, wildlife habitat, migration, and propagation.

No Action Alternative

The No Action Alternative would have no effect on fish.

Wildlife

Affected Environment

There are no state wildlife refuges, critical habitat areas, or sanctuaries in the project vicinity. There are no national parks, preserves, or refuges in the project area. The Alaska Maritime National Wildlife Refuge includes land and waters in the Norton Sound but does not extend to the City of Nome or the immediate surrounding area (USFWS, 2009).

The polar bear, designated a threatened species under the Endangered Species Act (ESA) has a range that includes the waters of Norton Sound and near coastal areas of the Seward Peninsula. According to the USFWS (see the May 9, 2011 Section 7 informal consultation findings letter in Appendix D), there is no critical habitat designated for polar bears within the project area and although polar bears can occur in the project area, their presence is infrequent.

Both the Spectacled and Steller's eider are listed as threatened species and have ranges that include areas in the vicinity of Nome. The range of the Kittlitz's murrelet, an ESA candidate species, includes areas of the Norton Sound and Seward Peninsula that extend to the vicinity of Nome. Nesting habitat for this species is found in mountainous regions and does not exist in the project area (Kessel, 1989; ESA Listed Species Consultation Guide Map:

http://alaska.fws.gov/fisheries/endangered/pdf/Consultation_guide_31010.pdf).

Endangered marine species that may inhabit the waters of Norton Sound adjacent to Nome include the blue whale, humpback whale, and North Pacific right whale (http:/alaska.fws.gov/fisheries/endangered/pdf/consultation_guide/4_Species_List.pdf).%20).

The Arctic peregrine falcon was delisted from the Endangered Species list in 1994 due to recovery, but is considered a species of special concern by the State of Alaska. This species lives in the treeless tundra areas of arctic North America, and most often nests along cliffs or bluffs that overlook rivers or lakes that provide habitat for other bird species, which are their primary prey. There are no cliffs or large bluffs within the project study area.

The ranges of the bald and golden eagle include the Seward Peninsula. Eagles generally nest in mature trees, snags and cliffs, or rock promontories, but rarely on the ground; therefore, the project area does not

provide habitat for eagles. The USFWS is unaware of any bald or golden eagle nests in the direct vicinity of the proposed project. No eagles or eagle nests were observed during field activities.

Proposed Action

Approximately 80 acres of habitat would be disturbed by the Proposed Action through either excavation or fill. Impacts to wildlife would be minor however, as this habitat is already degraded in value due to proximity to developed surfaces and active hazing by the Nome Airport to discourage waterfowl from loafing and nesting near the runways, which further reduces the use of adjacent habitats by wildlife. Palustrine Scrub Shrub dominated wetland communities would comprise the majority of impacted habitat, while Palustrine Emergent dominated communities, riverine and flooded pond habitat would be impacted to a lesser extent (Table 4 summarizes these impacts). All of these habitat types are widespread throughout the vicinity of the project area. Displaced species are likely to move to adjacent habitats.

Development of a stockpile area in the previously disturbed areas west of Construction Road may pose wildlife attractant concerns at the gravel pad. To reduce the attractiveness of the site to nesting migratory birds, and to eliminate opportunities for springtime nesting, the site will be graded, as necessary, to eliminate potential ponding of water and encourage runoff.

No eagle nests are known to exist within the proposed project boundaries. Since the area near the proposed project site does not provide eagle habitat much different than the surrounding landscape, the USFWS does not expect project related activities to adversely affect eagles (Bob Henszey, personal communication, January 3, 2011).

Informal consultation with USFWS, as mandated by the Section 7 of the ESA, concluded that the proposed project is not likely to have adverse effects on any ESA-listed species present in the project vicinity. The Section 7 April 4, 2011 consultation letter and May 9, 2011 USFWS findings letter is found in Appendix D.

Cumulative Impacts: Current and future projects would result in a cumulative loss of habitat in the area surrounding the Nome Airport. Proposed mining west of the airport could result in an additional loss of habitat, but the details about the mining plan are unknown. The cumulative impact is expected to be minor as the types of habitat that would be affected are widespread throughout the area and cumulatively represent only a small portion of the total habitat available.

No Action Alternative

The No Action alternative would not result in any new impacts to wildlife.

Plants

Affected Environment

Vegetation in the project area was characterized by ABR, Inc. (ABR). The vegetation is predominantly wetland consisting primarily of moist shrub-sedge meadows including willows (*Salix* spp.) and sedges, and scrub shrub communities dominated by ericaceous shrubs such as blueberry (*Vaccinium uliginosum*), willows, and bog birch (*Betula nana*). Vegetation indicators suggest that the project area is composed of mainly Vaccinium dwarf shrub tundra and willow dwarf shrub tundra (Viereck et al. 1992). The majority of uplands in the study area are disturbed and are composed of unvegetated areas of fill or gravel pads

used for urban structures, and areas of barren or partially vegetated fill associated with infrastructure or recent mining disturbances (ABR, 2010). The Snake River floodplain provides edge habitat formed by erosion of river banks, which is vegetated by larger willows and well-drained soils, allowing for overbank flooding during high flow events that reduces the energy of the flow within the river channel.

Proposed Action

Direct and Indirect Impacts: Vegetation within the limits of disturbance would be permanently altered. Finished slopes would be stabilized with rock or seeded with native grasses or other vegetative plantings. Some aspects of the Proposed Action would encourage new vegetation communities to develop within finished surfaces (river realignment and drainage improvements). The overall net impact to plant communities would be relatively minor as the types of vegetation that would be affected are widespread throughout the vicinity of the project area. The impacts to wetland plant communities are described in Section 4.13.

Cumulative Impacts: Although the Proposed Action contributes to cumulative impacts to vegetation, the plant communities to be impacted are similar to vegetation that surrounds the airport property and exists in abundance in Nome. The cumulative impact of the Proposed Action, past and future projects is not expected to be adverse.

No Action Alternative

The No Action Alternative would have no effect on plants.

4.7 Subsistence

Affected Environment

Within non-federal areas of the Nome city limits, the NCMP designates marine waters, tidelands and tidal flats, and the Snake River, as subsistence areas. Though only a small portion of the Snake River is included within the project area, navigation through this section may be restricted for watercraft at times due to safety concerns. High-value subsistence areas upriver are accessible via the Nome-Teller Highway bridge that crosses the Snake River, about 6 miles north of the Nome Harbor. Some of the high-value subsistence areas are also accessible by road. The river is also used as a corridor for snowmachines and dog mushers during the winter months. Community members also use the beach to access hunting and fishing grounds east and west of Nome. The Snake River and beach provide access to subsistence hunting and fishing areas year round. Subsistence activities near the project area include fishing, hunting, and the harvesting of berries and greens. Tomcod, lingcod, burbot, and salmon are fished from the Snake River, especially downstream of the project area. Beaver, otter, walrus, seal, and water fowl are hunted near the project area (NCMP, 2006).

Proposed Action

Direct and Indirect Impacts: No impact to subsistence activities is expected as a result of the Proposed Action except for temporary and localized limitations to access of the Snake River in the immediate project area while construction in the Snake River channel occurs (see Construction impacts). No impacts to adult salmon migrations and spawning are expected and no permanent effects to fish or fish habitat are anticipated. See the EFH Assessment in Appendix C for detailed information regarding potential impacts

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to fish. No impact to other subsistence species is expected. No long-term or permanent impact to subsistence activities or subsistence species is expected.

Cumulative Impacts: The Snake River Bridge replacement project is not expected to impact fish habitat significantly. Minimal and temporary impacts to fish habitat would occur and no contribution to cumulative fish habitat impacts is expected. The bridge project may limit access to the Snake River for some period of time; however, the construction schedules of the Proposed Action's work within the Snake River and the Snake River Bridge project do not coincide and cumulative impacts are not expected.

4.8 Floodplains

Affected Environment

The City of Nome participates in the national Flood Insurance Program, and Federal Emergency Management Agency (FEMA) flood maps are published for the Nome Airport and surrounding area (FEMA, 2010). Elevation data are provided for the harbor area, along the Snake River, most of the Airport, and some of the immediate surrounding area. A 100-year flood zone associated with the Snake River encompasses RW 10-28, the southern portion of RW 3-21, much of the developed area of the airport, and the Nome Harbor. Additionally, a narrow band of land, stretching from the intersection of the main and crosswind runways along the length of the western edge of Runway 3/21 and extending beyond the Nome Airport property to the northeast, lies within the 100-year flood zone. This special flood hazard area has a base elevation flood of 15 ft. A zone of less frequent and/or higher flooding exists as a slender buffer along most of the 100-year flood zone. A coastal flood zone, with wave action and no determined base flood elevation, extends west from the harbor along the coast. The flood study boundary ends near the western limit of the mining pit pond south of the crosswind runway. The existing runway surfaces within flood hazard areas range in elevation from approximately 12-16 ft.

The NCMP states that, within the City of Nome, coastal storm surges are the primary cause of flooding and that Snake River flooding is a low to moderate risk. Nome has been included in several federal disaster declarations due to damage resulting from storm surge coastal flooding (Division of Homeland Security and Emergency Management, 2010).

Proposed Action

Direct, Indirect and Cumulative Impacts: The RSA improvements to the main runway and threshold 3 of the crosswind runway would be constructed within the 100-year floodplain. Portions of the existing runways are below the base flood elevation of 15 ft. Safety area beyond the runway thresholds would be constructed above the base flood elevation, except for threshold 3 of the crosswind runway, which lies 3-1/2 ft below the base flood elevation. The Proposed Action would not alter the function of the floodplain. The embankment extension would not increase the length of runway surface located within the floodplain. Seeding with native grasses or other vegetative planting in disturbed areas would reduce the risk of bank erosion and mimic existing conditions of the floodplain.

No Action Alternative

The No Action Alternative would not impact the floodplain.

4.9 Hazardous Materials

Affected Environment

Numerous Environmental Site Assessments (ESAs) and Environmental Due Diligence Audits (EDDA) have been conducted within the project area within the last 10 years. An *Environmental Studies Report* (Shannon & Wilson, 2010) was completed for a portion of the project area and included soil and groundwater testing within Areas of Concern (AOCs) that were identified in previous environmental studies. A Phase I EDDA was conducted for the airport property in December 2009 (USKH Inc. [USKH], 2009) and an EDDA Update was completed in July 2010 (USKH, 2010) to address expansions in the proposed project area. Previous Phase I and Phase II ESA investigations (R&M, 2003; R&M, 2004) of overlapping study areas were also conducted within the project area.

The locations of potential contamination within the project area are shown in Figure 6. Most of the potentially hazardous waste within the project area is in the form of numerous abandoned barrels of asphalt south of the airport (AOCs 1 and 2) located within the ADEC listed Contaminated Nova Gold Barrel Dump site. ADEC lists this site as open, meaning some remedial action is still required. AOCs 1-5 also encompass at least three locations where it appears that drums and other unidentified waste have been buried. AOC 1 contains approximately 300, 55-gallon drums containing asphalt residue. Six plastic containers filled with a petroleum-like substance are also present in this location.

Other areas of potential contamination are present within the project area and include the Industrial Row site, northeast of the main runway threshold 10. Surface staining but no detectable groundwater or subsurface contamination is present at the Industry Row site (R&M, 2004). The Equipment Storage Area west of the crosswind runway consists of abandoned equipment and tires and contains several small oil stains. The contaminated soil at this site is approximately 3 cy (Shannon & Wilson, 2010). Residual petroleum hydrocarbon and solvent contamination is present in the soil at the southern boundary of the Nome City Landfill, and groundwater testing indicates residual petroleum hydrocarbon contamination in this area (R&M, 2004). Contaminant transport pathways were identified in two drainages flowing south from the landfill area, and include the reach of Center Creek northeast of Center Creek Road. Contaminant testing was not completed in the Center Creek drainage south of Center Creek Road, as no visible evidence of contamination was present (Tamar Stephens, personal communication, October 27, 2011). The Truck Fill Stand site located northwest of the airport showed the presence of petroleum hydrocarbon contaminated groundwater and subsurface soils (R&M, 2004).

Naturally occurring metals (arsenic, chromium, lead) were found throughout the project area in the soil. Arsenic concentrations measured in soil and groundwater are highly variable across the study area, and exceed ADEC cleanup levels. ADEC provided a soil arsenic background threshold value for an area south of the Snake River, within the proposed project boundaries, but adjacent to proposed ground disturbing activities. The arsenic background threshold value was calculated to be 748 mg/kg, much higher than the ADEC soil cleanup concentration of 3.5 mg/kg. The samples were taken from an area free of mining activity and had arsenic concentrations ranging from 7.78 mg/kg to 686 mg/kg. The USACE remediated soil in an area north of the crosswind runway (Airport Site "U") and tested the remediated soil for arsenic (USACE 2006). The soil samples had concentrations of arsenic ranging from 5.3 mg/kg to 439 mg/kg. USACE research indicates that arsenic in the area is naturally occurring, although mining activities may have concentrated the metal in some areas. Sampling activities detected mercury in the surface water of the pond adjacent to Dredge No. 6 (*Suspected Uncontrolled Hazardous Waste Site Investigation*, 1986).

Table 2 identifies areas of potential contamination and ADEC contaminated sites within the project boundary:

Site Name	Location	Problem
AOC-1, NovaGold Barrel Dump	West and south of Runway 10 and the Snake River.	Contaminated site listed as open by ADEC. Surface water on asphalt is contaminated with petroleum hydrocarbons and requires treatment prior to discharge. Approximately 300 55-gallon drums standing in soil and water containing a tar-like substance and unknown petroleum product require disposal. Asphalt and other non-contaminated solid waste requires disposal. (USKH, 2009; Shannon and Wilson, 2010)
AOC-2, NovaGold Barrel Dump	West and south of Runway 10 and the Snake River.	Contaminated site listed as open by ADEC. Surface water on asphalt is contaminated with petroleum hydrocarbons and requires treatment prior to discharge. Several 55-gallon drums containing/covered with and standing in tar-like substance require disposal. Asphalt and other non-contaminated solid waste requires disposal. (USKH, 2009; Shannon and Wilson, 2010)
AOC-3, Boneyard	South of Runway 10 and the Snake River.	Asphalt drums containing a tar-like substance, oily rags, and stained ground were observed in 2009 but were not present in 2010 field surveys. Potential buried waste on site. (USKH, 2009; Shannon and Wilson, 2010)
Industrial Row	Between FAA Road and Center Creek Road.	Testing indicates presence of surface contamination of petroleum hydrocarbons. Some evidence of a former military dump that may include solid wastes and chemicals. Potential dump sites were not tested for safety reasons. Arsenic and several heavy metals were detected at elevated levels in the soil and groundwater but attributed to natural concentration. (R&M 2004)
Nome Landfill Contaminant Transport Pathways	Two natural drainages including Center Creek, from the southeast corner of the landfill, south to where the drainages meet Center Creek Road and a pond just east of the road.	Testing of soil and groundwater indicates presence of residual petroleum hydrocarbon and solvent contamination in soils. Arsenic was detected at elevated levels but attributed to natural concentration. (R&M 2004)
Equipment Storage Area	West of the crosswind runway	This site includes numerous small oil stains, the largest of which contains approximately 3 cy of contaminated soil. Various pieces of equipment, scrap metals and tires also on site. The contaminated soil requires treatment or disposal off-site (USKH, 2009; Shannon & Wilson, 2010)

Table 2 – Known and Suspected Contaminated Areas Identified Within the Project Boundary

Two sites granted cleanup-complete by ADEC are present within the project area. The Northeast Runway Site and Airport Site "U" were granted cleanup-complete status by ADEC and USACE in 2002 and 2007, respectively. Neither site was required to implement institutional controls, but ADEC requires notification of off-site soil and water transport for all cleanup complete sites (Tamar Stephens, Personal Communication, October 27, 2011).

Proposed Action

Direct, Indirect and Cumulative Impacts: Land that would be purchased for development of the Proposed Action would not contain known or suspected contamination or would be cleaned up prior to purchase. Known or suspected contamination may be present in areas that would be acquired as ROW avigation easements; however, these areas would not experience ground disturbance or direct impact in any way. DOT&PF has cleaned-up the Nova Gold Barrel Dump site in the fall of 2012 and is currently coordinating with ADEC to get the files closed (AOCs 1 and 2, Figure 6). Construction dewatering would discharge arsenic contaminated groundwater, but it is not expected to have an impact on water quality or fisheries resources. Handling of arsenic-contaminated groundwater during construction dewatering activities is discussed in section 4.5. Excavation would occur in the Northeast Runway and Airport "U" sites that ADEC has granted cleanup-complete. Coordination with ADEC indicates that encountering contaminated soil in these sites is not expected. Elevated levels of arsenic are expected to occur in all areas of excavation. All excavation would either be re-used within construction of the Proposed Action or would be stockpiled on DOT&PF property for use in maintenance and future airport projects; no disposal of excavated material is anticipated. Material excavated in previously mined areas will only be used in an upland, non-environmentally sensitive location and will not be placed within 100ft. of water wells, surface waters and drainage ditches. Should contaminated soils be encountered during construction, all work in the contaminated zone would be stopped and the ADEC would be consulted to coordinate appropriate cleanup actions. The contractor would be required to dispose of these soils and water in an ADEC-approved manner: therefore, adverse cumulative impacts would decrease. The project would be conducted in accordance with state and federal laws regarding handling, disposal, and spill response for hazardous materials, waste, and substances. Impacts to contaminated soils are not anticipated.

No Action Alternative

The No Action Alternative would not generate any hazardous or solid wastes, nor would it remove any known contaminated soils.

4.10 Historic, Architectural, Archaeological, and Cultural Resources

Affected Environment

The Area of Potential Effect (APE) was designed to include both areas that could potentially experience direct effects (i.e. the locations of RSA construction, Snake River relocation, utility relocation, drainage improvements, property acquisitions, haul routes, and stockpile area) as well as those where indirect effects could be experienced (such as increased noise or vibration, changes in traffic or flight patterns, or areas where properties have a line-of-sight view).

A cultural resources survey to identify potential cultural resources and historic properties within the project area was completed in 2010 by Northern Land Use Research, Inc. (NLUR). NLUR's survey study area was defined by the anticipated impact areas based on the earlier project designs and is largely congruent with the APE described above.

The research methods employed for the cultural resources survey included literature review, oral history interviews, study of previously completed surveys, examination of the Alaska Heritage Resource Survey (AHRS) and National Register of Historic Places (NRHP) databases, as well as a field survey completed in August 2010. Potential historic properties identified in the study areas were evaluated for NRHP eligibility. The evaluations and recommendations of eligibility were presented in NLUR's report titled

Cultural Resources of Nome Airport Runway Safety Area Expansion, Nome, Alaska (DOT&PF Project No. 61413), May 2011.

For historic properties within the APE, DOT&PF's determinations of eligibility and SHPO's concurrence for the NRHP are summarized in Table 2, below.

AHRS No.	Name/Description	General Location	NRHP Eligibility
NOM-037	Birchwood Hanger	Nome Airport	N/A - demolished
NOM-105	Marks Field (Nome Municipal Airport)	Nome Airport	SHPO concurred with determination of not eligible in 1991
NOM-119	NWS Upper Air Facility Building	Nome Airport	N/A - demolished
NOM-120	NWS Fourplex B-1	Nome Airport	N/A - demolished
NOM-121	NWS Fourplex B-1	Nome Airport	N/A - demolished
NOM-122	NWS Garage/Shop	Nome Airport	N/A - demolished
NOM-176	Cemetery	East of Cemetery Road	SHPO concurred with determination of not eligible in 2012
NOM-180	Snake River Bridge	Intersection of Seppala Dr. & Port Rd.	SHPO concurred with determination of not eligible in 2010
NOM-224	Old Nome Power Plant	Directly south of NOM- 180 on east side of Port Road	SHPO concurred with determination of not eligible in 2012
NOM-232	Snow fence	Immediately off northwestern side of RW10	SHPO concurred with determination of not eligible in 2012
NOM-233	Two hole privy	Immediately off northwestern side of RW10	SHPO concurred with determination of not eligible in 2012
NOM-234	Tailings pile	Northwest quadrant of airport	SHPO concurred with determination of not eligible in 2012
NOM-235	Mining water control structures & modern campsite features	South side of Snake R., across from RW10, near midpoint	SHPO concurred with determination of not eligible in 2012
NOM-236	Modern dwelling, outbuildings, and artifacts	South side of Snake R., across from RW10, near midpoint	SHPO concurred with determination of not eligible in 2012
NOM-237	Water control structure & tailings pile	South side of Snake R., across from RW10 threshold	SHPO concurred with determination of not eligible in 2012
NOM-238	Domestic artifacts & wooden building materials, "wanigan"	Approximately 2,500 ft. northwest from RW10	SHPO concurred with determination of not eligible in 2012

 Table 3 – Cultural Resource Eligibility for the NRHP within the APE

AHRS No.	Name/Description	General Location	NRHP Eligibility
	feature	threshold	
NOM-239	Thaw field pipes and work platform	Approximately 1,500 ft. southwest from RW10 threshold	SHPO concurred with determination of not eligible as an individual site but is eligible as a contributing feature of part of a larger historic district (2012)
NOM-240	Tailing pile, within which is Dredge No. 6	South side of Snake R., southwest of RW10	SHPO concurred with determination of not eligible as an individual site but is eligible as a contributing feature of part of a larger historic district (2012)
NOM-241	Dredge No. 6	South side of Snake R., southwest of RW10	SHPO concurred with determination of individually eligible under Criterion A and C (2012); and determination of eligible as a contributing feature to the historic district (NOM- 243)
NOM-243	Nome Dredge No. 6 Historic Mining District (proposed)	South side of Snake R., southwest of RW10	SHPO concurred with determination of eligible by under Criterion A and C (2012)
NOM-244	"Samuelson Trail"	A winter trail on the Snake River, from the mouth towards the northwest, it crosses onto land west of Runway 10, then heads north along the east side of the Snake River valley (trail markers end at Glacier Creek).	DOT&PF has determined that the Samuelson Trail is eligible for the NRHP under Criterion A. The Samuelson Trail is reported to follow an old wagon trail used as a freighting route to Anvil Creek, circa 1898-1902; from there, the trail continues north and follows the east side of the Snake River valley, it was used to access other tributaries containing auriferous gravels.

4.11 Consultation Efforts

On April 19, 2011, the FAA sent a Government-to-Government Consultation Initiation letter to the Nome Eskimo Community, Bering Straits Native Corporation, and Sitnasuak Native Corporation, describing the project and requesting comments and input on future coordination. The DOT&PF initiated consultation to request assistance in the identification of historic properties and properties of traditional, religious or cultural importance on April 4, 2011. Consultation letters were sent to the SHPO, Nome Eskimo Community, Bering Straits Native Corporation, Sitnasuak Native Corporation, King Island Native Corporation, King Island Native Corporation, King Island Native Corporation, King Island Native Community, Kawerak Incorporated, the Carrie M. McClain Memorial Museum, and the City of Nome. The letters provided a description of the proposed project, outlined known historic properties, and solicited comments and input regarding potential impacts the proposed project may have on any historical, archeological, or cultural resources. The Sitnasuak Native Corporation responded on May 27, 2011, requesting to be informed on the progress of the project. Sitnasuak Native Corporation noted that the project construction activities are not located near a resource of importance to their community and confirmed it would not be impacted by the proposed project. Copies of consultation letters and the response are included in Appendix D.

On February 28, 2012 DOT&PF sent Section 106 Findings of Effects letters to the SHPO, Bering Straits Native Corporation, King Island Native Corporation, King Island Native Corporation, King Island Native Corporation, Straits

Corporation, Nome Eskimo Community, Kawerak Incorporated, the Carrie M. McClain Memorial Museum, and the City of Nome. The letters provided a description of the proposed project and defined its Area of Potential Effect, outlined the efforts made to identify historic and cultural properties, described each identified property and provided a determination of eligibility for inclusion in the NRHP, stated the finding of effect of the project on historical properties, and requested that the consulting parties provide concurrence with the finding or comments. DOT&PF determined that no historic properties would be adversely affected by the proposed project. FAA made a *de minimis* impact finding for the proposed use of a 4(f) property (see section 4.4). Copies of the findings letters are included in Appendix D.

On March 22, 2012 SHPO responded to the Findings of Effects letter. SHPO concurred that Dredge No. 6 (NOM- 241) and Nome Dredge No. 6 Historic District (NOM-243) are eligible for the NRHP, that NOM-239 and NOM-240 are eligible to NRHP as contributing features to the Nome Dredge No. 6 Historic District, and that the following sites are not eligible for the NRHP: NOM-37, NOM-105, NOM-119, NOM-120, NOM-121, NOM-122, NOM-176, NOM-180, NOM-224, NOM-232, NOM-233, NOM-234, NOM-235, NOM-236, NOM-237, NOM-238, NOM-239, and NOM-240. However, SHPO was unable to provide complete concurrence for the project until DOT&PF evaluated and consulted with appropriate parties regarding the Samuelson Trail (NOM-244).

In April, 2012, DOT&PF consulted with members of the Nome community likely to be knowledgeable about the Samuelson Trail and gathered oral history about the trail. On May 3, 2012, DOT&PF sent a Section 106 Findings of Effect letter to the SHPO and interested parties. The letter provided a description and historic context of the Samuelson Trail, and provided a determination of eligibility for inclusion in the NRHP, stated the finding of effect of the project on the trail, and requested the SHPO provide concurrence with the findings. DOT&PF determined that while NRHP eligible properties are present within the APE, the proposed project would not adversely affect the characteristics that qualify the Samuelson Trail (NOM-244), Dredge No. 6 (NOM-241), or the Nome Dredge No. 6 Historic Mining District (NOM-243) for inclusion in the NRHP. FAA made a *de minimis* impact finding for the proposed use of a 4(f) property (see section 4.4). On May 14, 2012, the SHPO concurred with DOT&PF finding of no adverse effect and had no objection to the FAA *de minimis* finding. To date, no comments have been received from the interested parties on this finding of effect.

Proposed Action

Direct, Indirect, and Cumulative Impacts: While NRHP eligible properties are present within the APE, DOT&PF has determined, on behalf of FAA that the proposed project would not adversely affect the characteristics that qualify the eligible properties for inclusion in the NRHP. SHPO's concurred with the finding of no adverse effect and did not object to a de minimis impact finding.

No Action Alternative

The No Action alternative would not affect historic, archaeological, or cultural resources.

4.12 Water Quality

Affected Environment

Water resources in the project area include the Snake River, Center Creek, Nome Harbor, Norton Sound, and wetland habitat (the latter is discussed in section 4.13). There are no private drinking wells or ADEC designated impaired waterbodies in the project area. Although the water quality of the Snake River is

reasonably good, ADEC reports that low levels of diesel-range organics and benzene have been detected in the sediments of the Snake River. Arsenic concentrations tested in the Snake River were well below ADEC cleanup levels (Shannon & Wilson, 2010).

Proposed Action

Direct, Indirect and Cumulative Impacts: Drainage patterns of the area surrounding the Snake River realignment would be altered; however, no permanent changes to water quality are expected. The Proposed Action would not adversely affect the community water supply, and would not have long-term effects on water quality. Water quality of the Snake River and Center Creek would be impacted temporarily during construction and for a short time (expected to be no more than one year) after completion of in-water work. The increased levels of turbidity and suspended sediment would occur during the in-water construction and during subsequent periods of high river flow or during strong tidal outflow. During such high flow events, turbidity levels could be elevated for periods of a day or two with the frequency of such events declining over time as the banks and bed of the new river reach become "armored" with sand. Over the course of one year, it is expected that the new channel alignment and disturbed bed and bank areas would become armored with sand from instream placement and from bedload transport from upstream, stabilizing the channel bed and banks and reducing the incidence of sediment suspension and transport. Construction-related water quality impacts are addressed in Section 4.3.

In compliance with APDES and to minimize erosion and sedimentation due to construction, DOT&PF will prepare an Erosion Sedimentation Control Plan (ESCP) and the contractor will be required to prepare a SWPPP and to implement BMPs. Storm water discharges resulting from this project will be covered under the Alaska Construction General Permit (CGP) AKR100000.

No Action Alternative

The No Action alternative would have no effect on water quality.

4.13 Wetlands and Waters of the U.S.

Affected Environment

ABR conducted a wetlands determination and wetlands functional assessment on 2,882 acres, including the Nome Airport property and surrounding area (ABR, 2010). Habitat in the project area was characterized and grouped into wetlands and uplands across twenty habitat types. These types were consolidated and further grouped into nine main wetland and upland habitat categories to simplify discussions of the affected environment and project area impacts (USKH, 2011). Figure 7 shows locations of project area wetlands.

The dominant wetland types surrounding the airport include a variety of Palustrine Scrub Shrub dominated communities (Palustrine Saturated Broadleaf Deciduous Shrub-Emergent Meadow and Palustrine Saturated Broadleaf Deciduous-Broadleaf Evergreen Shrub). These wetlands make up large areas of undisturbed tundra and are typically dominated by woody shrub species. Soils consist of thick layers of saturated organics underlain by permafrost. The Scrub Shrub dominated wetlands are interspersed with semipermanently and seasonally flooded Palustrine Emergent classes dominated by herbaceous vegetation and Flooded Ponds. These flooded areas do not generally have the restrictive permafrost layer typical to the Scrub Shrub dominated communities. Wetlands within previously mined

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or disturbed areas are primarily composed of excavated ponds, fill, and disturbed wetlands. Vegetation within the disturbed wetlands typically consists of early colonizing willows and grasses. Seasonally frozen soils made up of disturbed layers of organics and silt are typical in these areas.

Center Creek flows from northeast of the existing airport property towards the northern threshold of the crosswind runway and then flows to the south within a ditch that follows the eastern border of airport development. Center Creek east of the main runway is not well defined, dispersing into a marshy area before becoming redefined into a channel that eventually flows into the Snake River. Center Creek previously flowed along the west side of the crosswind runway but was relocated to the existing ditch in 1989.

The Snake River borders the airport to the south. The riparian zone surrounding the Snake River is abundant with saturated Palustrine Emergent and Palustrine Scrub Shrub dominated wetland communities. Scrub Shrub and Emergent communities in these areas have unfrozen, saturated soils and typically see at least seasonal flooding due to their proximity to the Snake River.

All wetlands in the project area, with the exception of one wetland type, were categorized by ABR as moderate to low functioning wetlands due to their widespread occurrence, limited functional value, limited size, and/or because they have been degraded by human disturbance. One Palustrine Emergent dominated wetland type (Palustrine Permanently Flooded Emergent Marsh) was designated as the only wetland in the project area with high to moderate functional value and was also noted for its lack of degradation (ABR, 2010). These high value wetlands are generally located adjacent to permanent bodies of water, and surrounded by Palustrine Shrub Scrub, and Palustrine Emergent dominated wetlands.

In 2010, USKH conducted a functional assessment of wetland types within the project area as part of a feasibility analysis for the relocation of the Snake River (USKH, 2011). As part of that analysis, other Palustrine Emergent dominated wetland types located adjacent to the Snake River were determined to present a similarly high wetland function and are also considered higher value due to their ability to buffer floodwaters and provide riparian habitat to wildlife using the Snake River system. Additionally, the seasonally flooded and semi-permanently flooded emergent wetlands were added as high value wetlands throughout the project area due to their relatively high functional capacity for sediment, nutrient, and toxicant removal, organic matter production, and flood flow regulation when compared to other wetlands (USKH, 2011). Figure 7 identifies the high value wetlands within the project area.

Proposed Action

Direct and Indirect Impacts: Executive Order 11990, "*Protection of Wetlands*," requires that there be no practicable alternative to the Proposed Action if it affects wetlands, and that the project includes all practicable measures to avoid and minimize harm to wetlands. DOT&PF has determined that there are no practicable alternatives that would result in less impact on wetlands and waters of the U.S. without other significant consequences. The project components have been reduced as much as possible and positioned to limit wetland impacts and still meet the project purpose and need.

The Proposed Action would impact approximately 58.2 acres of wetlands and waters of the U.S. through excavation or fill. Some aspects of the Proposed Action have been designed to encourage new wetland communities to develop within finished surfaces (river realignment and drainage improvements). Once these new wetland areas are established, they serve to minimize the overall impacts to wetlands by potentially reducing the net loss from fill and excavation. The impact to riverine habitat would be temporary. The realigned river channel is expected to normalize within several years and will result in an

increase of approximately 50 linear feet (lf) of riverine habitat. The affected resources are summarized in Table 4:

Proposed Action Component	Moderate to Low Value Wetlands	Impact Area (acres)*	High Value Wetlands	Impact Area (acres)*
	Palustrine Scrub Shrub	1.0	Riverine	2.3
Main Runway RSA	Dominated	1.0	Flooded Pond	0.2
Improvements and EMAS	Disturbed Wetlands	0.3	Palustrine Emergent Dominated	4.5
	Palustrine Scrub Shrub	27 4	Riverine	2.6
Crosswind Runway	Dominated	27.4	Palustrine	
RSA Improvements	Disturbed Wetlands	0.2	Emergent Dominated	1.0
Construction Road	Palustrine Scrub Shrub Dominated	6.5	Palustrine Emergent	0.1
Relocation	Disturbed Wetlands	0.02	Dominated	
			Riverine	2.5
River Realignment	Disturbed Wetlands	0.1	Palustrine Emergent Dominated	0.1
	Palustrine Emergent Dominated	0.3	Riverine	0.2
Drainage	Palustrine Scrub Shrub Dominated	5.8	Flooded Ponds	0.1
Improvements			Palustrine Emergent Dominated	0.9
	Disturbed Wetlands	0.8	Palustrine	
Stockpile Area and Road Widening	Palustrine Scrub Shrub Dominated	1.2	Emergent Dominated	0.1
TOTAL Moderate to Low Value 43.6 High value 14.			ue 14.6	
Total Wetland Impacts 58.2 Acres				

Table 4– Proposed Action Impacts to Wetlands and Waters

* Some aspects of the Proposed Action have been designed to encourage new wetland communities to develop within finished surfaces (river realignment and drainage improvements). Once these new wetland areas are established, they serve to minimize the overall impacts to wetlands by potentially reducing the net loss from fill and excavation. Acreage calculations are conservative and incorporate a 30-foot buffer area to account for minor changes in the design and construction methods.

Avoidance, minimization, and compensatory mitigation are the primary measures available to conserve wetlands for this project. The avoidance and minimization, mitigation, and enhancement measures are listed in Section 4.14 and in the *Wetlands Avoidance and Minimization Analysis* attached in Appendix E.

Cumulative Impacts: The Snake River Bridge project, the proposed mining west of the airport, and additional actions by others may result in the loss of additional wetlands, although adherence to the federal rule of *Compensatory Mitigation for Losses of Aquatic Resources; Final Rule*" (Federal Register,

Rules and Regulations: Vol. 73, No. 70: April 10, 2008: 19596) would reduce or minimize the extent of these impacts.

No Action Alternative

The No Action alternative would not affect wetlands.

4.14 Wetlands Avoidance, Minimization, and Mitigation Measures

The proposed project has unavoidable wetland impacts. The new *Compensatory Mitigation for Losses of Aquatic Resources; Final Rule* emphasizes a "watershed approach" to include all aquatic resources (water bodies and wetlands) in proposed mitigation plans: "*[T]his rule should apply to compensatory mitigation for all types of aquatic resources that can be impacted by activities authorized by DA permits, including streams and other open waters*" (Federal Register, Rules and Regulations: Vol. 73, No. 70: April 10, 2008: 19596).

The Proposed Action would impact approximately 58.2 acres of jurisdictional wetlands and waters of the U.S. To offset these unavoidable impacts, DOT&PF will proposes to USACE participation in an in-lieu fee program and compensatory mitigation ratios based on wetland functional value and Appendix B of the Alaska District Regulatory Guidance Letter, RGL ID No. 09-01. The in-lieu fee would be coordinated with the Alaska Wetlands Conservation Fund, which was established in an agreement between DOT&PF and The Conservation Fund to receive mitigation funds related to the construction or expansion of rural airports in Alaska.

Proposed wetland Avoidance and Minimization Measures for this project are listed below and documented in the *Wetland Avoidance and Minimization Analysis* (Appendix E):

- The Proposed Action elements have been designed with minimal dimensions while serving subject function.
- The side slopes for the embankment expansions, river realignment, rerouting of Construction Road, and the development of the stockpile area would be as steep as safety and geotechnical considerations for slope stability would allow.
- Project components have been sited to avoid impacts to wetlands by using existing embankments and disturbed areas where practicable, including the selection of stockpile site number 2.
- Project components have been sited to minimize impacts to high-value wetlands as much as practicable.
- Material excavated for various project components would be used as fill for the safety area improvements to the extent feasible. Material not used in the improvements would be placed as fill to develop a stockpile site on airport property for use in maintenance activities and future airport projects.
- The project footprint would be staked prior to construction and maintained for the duration of the project to avoid additional impacts to wetlands from construction activities.
- Materials would be stockpiled within the project fill footprint, or developed/upland areas, to avoid impacting additional ground.
- Setbacks from water channels and standing water would be maintained for refueling and vehicle maintenance activities to avoid impacts to the water bodies from an accidental spill.
- Some aspects of the Proposed Action have been designed to encourage new wetland communities to develop within finished surfaces (river realignment and drainage improvements). Once these

new wetland areas are established, they serve to minimize the overall impacts to wetlands by potentially reducing the net loss from fill and excavation.

4.15 Summary of Environmental Commitments

The following commitments would be included as part of the Proposed Action to reduce environmental impacts:

Air Quality

• Air quality impacts will be temporary and would be controlled by the use of BMPs to reduce dust during construction. Measures to control fugitive dust may include pre-watering sites prior to excavation, applying a dust palliative, controlling construction traffic patterns and haul routes, and covering or otherwise stabilizing fill material stockpiles.

Water Quality

- The contractor will be required to comply with the APDES CGP and prepare and implement a SWPPP (subject to DOT&PF approval and based on DOT&PF's ESCP).
- BMPs will be followed; this includes placement of a turbidity curtain or another approved BMP before in-water construction begins in the Snake River; use of only clean fill material (10 percent in fines) for the construction of the embankments; temporary installation of silt fencing or other perimeter control during construction of embankments within wetlands; and re-vegetation of disturbed areas with native species.
- Water quality will be maintained to the highest degree possible during construction by use of BMPs such as isolation of work from the flowing river as much as practicable and use of silt curtains, and placement of the lowest segment of bank-armoring revetment first in order to minimize sediment release into the river.
- In-water work will be limited to low flow periods in the Snake River, such as the late summer or winter, in order to minimize sediment discharge to the river.

Construction

- Advance notice of construction and detours will be provided to airport users.
- Traffic will be re-routed around the construction area during construction to the extent feasible.
- Haul routes, staging, and stockpiling of construction materials will be planned to avoid or minimize impacts to users.
- Access via the Snake River will be coordinated locally and accommodated as much as possible during construction to allow continued local user access to areas upstream of the construction via boat and snowmachine (depending on time of construction).
- DOT&PF will coordinate with NMFS and ADF&G to establish appropriate mitigation for the temporary, construction-related impacts to EFH.
- DOT&PF is in consultation with ADEC to determine the most appropriate land-based dewatering method to avoid discharge of arsenic contaminated groundwater into the Snake River. If land-based methods are found to be impracticable, discharge would be in an ADEC-approved manner and may include a permitted mixing zone for arsenic and sediment to safely introduce the discharge into an existing mining dredge pond on site or other approved water body. Discharge of dewatered groundwater will not take place within a public drinking source or fish habitat.

Aircraft Operations

- An air traffic control plan will be developed and implemented during construction.
- The construction contractor will notify the DOT&PF Project Engineer of any activities that would change available landing surface or NAVAIDS so this information can be broadcast to airport users. The Project Engineer will inform the DOT&PF Airport Manager who will coordinate and issue all required Notices to Airmen (NOTAMs).
- Construction activities will be staged to minimize delays to aircraft or passengers.
- During construction periods that do not require partial runway closures, the construction contract will require the contractor to conform to FAA safety guidelines and avoid delays to aircraft or passengers.

Hazardous Waste, Pollution Prevention, and Solid Waste

- DOT&PF will require the construction contractor to develop a Hazardous Materials Control Plan (HMCP) to address storage and handling of hazardous materials, including fuel and lubricants, and spill response.
- Construction contracts will include a provision that if contaminated soil or groundwater is suspected or encountered during construction activities, the construction contractor will contact the DOT&PF Project Engineer and stop the work, so that the DOT&PF can coordinate with ADEC in accordance with 18 ACC 75.300. All contamination will be handled and disposed of in accordance with an ADEC-approved corrective action plan.
- All solid wastes generated during construction will be disposed of at a permitted landfill.
- Material excavated in previously mined areas will only be used in an upland, nonenvironmentally sensitive location and will not be placed within 100ft. of water wells, surface waters and drainage ditches.

Historical, Archaeological, and Cultural Resources

• The construction contract will contain the provision, "Should cultural or paleontological resources be discovered as a result of this activity, all work that could impact these resources will halt and the DOT&PF Project Engineer and SHPO will be notified immediately." Work will not resume at these sites until Section 106 consultation is conducted with FAA and SHPO.

Fish, Wildlife, Plants, and Subsistence

- DOT&PF will comply with the Migratory Bird Treaty Act by either adhering to the recommended bird timing window of May 20th to July 20th or by sufficiently altering vegetated sites before migratory birds arrive so that they do not provide nesting habitat or another method approved by the USFWS
- If an active eagle nest is encountered during construction, intrusive activities such as clearing will not proceed in the vicinity of the active nest until fledging occurs. If construction activities appear to disturb eagles, the USFWS Regional Office would be contacted. The proposed project will be conducted in compliance with the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act.
- Impacts to fish will be minimized by using ADF&G-stipulated timing windows, using only clean fill, and isolating work areas where practicable.

- The instream flow rates specified in the ADF&G Snake River water reservation would be adhered to, in order to protect fish, wildlife habitat, migration and propagation.
- Finished slopes would be stabilized with rock or seeded with native grasses or other vegetative plantings. Seeding with native grasses or other vegetative planting in disturbed areas would reduce the risk of bank erosion and mimic existing conditions of the floodplain.

Wetlands

- The project footprint will be staked prior to construction and maintained for the duration of the project to avoid additional impacts to wetlands from construction activities.
- Embankment fill material will be stockpiled within the project fill footprint or upland areas of the airport to avoid impacts to wetlands.
- Setbacks from water channels and standing water will be maintained for refueling and vehicle maintenance activities to avoid impacts to the water bodies from an accidental spill.
- DOT&PF will propose to the USACE fee in-lieu compensatory mitigation for the approximately 58.2 acres of wetland and waters of the U.S. impacts associated with the Proposed Action.

5.0 PUBLIC INVOLVEMENT AND AGENCY COORDINATION

The public, numerous agencies, and various tribal entities were consulted throughout the planning and design development phases of this project. Tables 5 and 6 outline the tasks and activities undertaken to ensure involvement and coordination. Project scoping correspondence and materials are included in Appendix D and F.

Date	Activity	Description
9/17/09	Public Meeting	DOT&PF holds a public meeting in Nome to discuss proposed
		airport improvements.
10/01/09	Website Posting	DOT&PF created a project website to be updated as the
		proposed project progresses so the public would have easy
		access to the latest information about the project.
10/05/09	Radio Interview	USKH representative gives interview on KNOM radio regarding
		the Snake River relocation option of the proposed project.
10/08/09	Newspaper Advertisement	DOT&PF issues a newspaper ad in the Nome Nugget
		announcing the project website, soliciting input and identifying
		the deadline for public comment.
10/30/09	Multi-Agency Task Force	DOT&PF hosts an agency meeting in Nome to discuss the two
	Meeting	potential Snake River relocation options for the proposed airport
		improvements. The meeting included a presentation, site-visit,
		and discussion period. Comments were received from all
		agencies in attendance: ADF&G, ADEC, Nome Port
		Commission, USACE, USFWS, and NMFS.
5/17/10	Website Posting	The webpage is updated to present the details of the Proposed
		Action and request comments.
5/27/10	Newspaper Advertisement	DOT&PF issues a newspaper ad in the Nome Nugget
		announcing a public open house that would present RSA
		improvement options and provide opportunity for public input,
		and inviting the public to visit the project website and provide
		online comment.
6/2/10	Public Meeting	DOT&PF holds a public meeting in the Village of Nome to
		discuss the preferred options of the proposed airport
		improvements.
5/24/11	Website Posting	The webpage is updated to present the details of the revised
		Proposed Action and request comments.
3/8/12	Website Posting	The webpage is updated to present details of the revised
		Proposed Action and request comments
05/3/12	Newspaper Advertisement	DOT&PF issues a newspaper ad in the Nome Nugget
		announcing the availability of the Draft EA, a public open
		house, and opportunity to comment.
5/16/12	Public Meeting	DOT&PF holds a public meeting in Nome to discuss the Draft
		EA and revised Proposed Action.

Table	5 - 1	Public	Involvement	Activity	Summary
	-				

Date	Activity	Description
10/30/09	Multi-Agency Task Force Meeting	DOT&PF hosts an agency meeting in Nome to discuss the two potential Snake River relocation options for the proposed airport improvements. The meeting included a presentation, site-visit, and discussion period. Comments were received from all agencies in attendance: ADF&G, ADEC, Nome Port Commission, USACE, USFWS, and NMFS.
11/17/10	Multi-Agency Task Force Meeting	DOT&PF hosts a meeting in Fairbanks, also via telephone and video conference, to gather comments regarding a new Snake River relocation option. The meeting included a presentation and discussion period. Comments were received from: ADEC, USFWS, and Nome Port Commission.
12/06/10	Agency Scoping Letters	DOT&PF issues letters to local governments and a landowner, Federal and State agencies, and staff describing the project and soliciting comments. Comments were received from ADF&G, DNR, EPA, NMFS, ADEC, USACE, USFWS and a landowner.
4/4/11	Endangered Species Act, Section 7 Informal Consultation	DOT&PF issues a letter to the USFWS describing the proposed project and known ESA-listed
4/4/11	Section 106 Consultation	DOT&PF issues a letter to SHPO initiating consultation under Section 106 of the National Historic Preservation Act.
4/5/11	Section 106 Consultation Initiation	DOT&PF issues a letter to the City of Nome, Kawerak Incorporated, and the Carrie M. McLain Memorial Museum initiating consultation under Section 106 of the National Historic Preservation Act.
5/9/11	Endangered Species Act, Section 7 Informal Consultation Response	The USFWS concurs with DOT&PF's determination that the proposed project is not likely to adversely affect listed species, candidate species, or polar bear critical habitat.
5/17/11	Multi-Agency Task Force, Fisheries Work Group Meeting	DOT&PF hosts an agency meeting in Anchorage to discuss fisheries concerns related to the Snake River relocation option for the proposed airport improvements. The meeting included a presentation and discussion period. Agencies in attendance: ADF&G, Nome Port Commission, and NMFS. Comments were received from NMFS.
2/01/12	Multi-Agency Task Force Letter	DOT&PF issues a letter to the participating agencies to notify them of changes to the Proposed Action and to request comments. Comments were received from ADEC, ADF&G, USFWS, Nome Port Commission, and NMFS.
2/28/12	SHPO Section 106 Determination of Resource Eligibility and Finding of No Historic Properties Adversely Affected	DOT&PF issues a letter to SHPO requesting concurrence of determinations of resource eligibility for inclusion in the NRHP and that the proposed project would not adversely affect historic properties.
2/28/12	Section 106 Finding of No Historic Properties Adversely Affected	DOT&PF issues a letter to the City of Nome, Kawerak Incorporated, and the Carrie M. McLain Memorial Museum requesting concurrence that the proposed project would not adversely affect historic properties.
3/22/12	Section 106 SHPO Concurrence of Resource Eligibility Determination	The SHPO concurs with DOT&PF's determinations of eligibility for resource for inclusion in the NRHP and requests information on the Samuelson Trail.

Table 6– Agency Coordi	ination Activity Summary
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March -	Additional Agency	DOT&PF completes additional coordination with ADF&G,	
April	Coordination	NMFS, ADEC and USFWS to address and clarify comments on	
2012		the new preferred alternative.	
5/3/12	Addendum to the Finding of	DOT&PF determines that the Samuelson Trail (NOM-244)	
	No Historic Properties	would not adversely affect the qualities that qualify it for	
	Adversely Affected	inclusion in the NRHP.	
5/04/2012	Notification of availability	DOT&PF sends an email to notify resource agency	
	of the Draft EA	representatives of the availability of the Draft EA and provides a	
		link to an electronic copy of the Draft EA. Comments were	
		received from ADEC, ADF&G, City of Nome, USACE, USDA,	
		and USFWS.	
5/14/2012	Section 106 SHPO	The SHPO concurs with DOT&PF's finding of no adverse	
	Concurrence of Finding of	effect for the proposed project and the intention to apply a de	
	Effect	minimis impact under the provisions of 49USC section 303(d).	
6/4/12	USFWS Recommendation	USFWS recommends that stockpile site 1 be re-evaluated as the	
		preferred site and suggests that site 2 would be the LEDPA.	
9/20/12	DOT&PF Response Letter	DOT&PF select stockpile site 2 as the preferred site, concurring	
	_	with the USFWS.	

Date	Activity	Description
4/5/11	Section 106 Consultation	DOT&PF issues a letter to the Bering Straits Native
	Initiation	Corporation, Sitnasuak Native Corporation, King Island Native
		Community, King Island Native Corporation, and the Nome
		Eskimo Community, initiating consultation under Section 106
		of the National Historic Preservation Act.
	Government to Government	FAA issues a letter to the Nome Eskimo Community, Bering
4/19/11	Consultation Initiation	Straits Native Corporation and Sitnasuak Native Corporation
		describing the project and requesting comments and input on
		future coordination. A response was received only from
		Sitnasuak Native Corporation.
2/28/12	Section 106 Finding of No	DOT&PF issues a letter to the Bering Straits Native
	Historic Properties Affected	Corporation, Sitnasuak Native Corporation, and the Nome
		Eskimo Community requesting concurrence that the proposed
		project would not affect historic properties.
3/8/12	Project Update Notification	Sitnasuak Native Corporation is notified that the project website
		has been updated with details of the revised Proposed Action. A
		response was received stating that Sitnasuak Native Corporation
		would review the information.
5/3/12	Addendum to the Finding of	DOT&PF determines that the Samuelson Trail (NOM-244)
	No Historic Properties	would not adversely affect the qualities that qualify it for
	Adversely Affected	inclusion in the NRHP.

Public comments were received throughout the project, and served to shape the development of the alternatives and the Proposed Action. Local residents shared knowledge of the area and its natural resources that contributed to descriptions of the affected environment, agency coordination discussions, and overall project design. Few written comments have been received for this project. Most comments obtained were received through public meeting discussions, and have been paraphrased in public meeting notes (see Appendix F).

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6.0 LIST OF PREPARERS

The following individuals were primarily responsible for the content of this EA, or for providing senior management leadership during the development and production of this document:

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8.0 FIGURES

- Figure 1. Location and Vicinity Map
 Figure 2. Existing Conditions
 Figure 3. Proposed Action
 Figure 4. Proposed River Realignment
 Figure 5. Proposed Property Acquisition
- Figure 6. Contaminated Areas
- Figure 7. Project Area Wetlands











1,500

Scale in Feet

0

extent of property that may be required for purchase. The final extents of property acquisition are dependent on the results of the appraisal process.

Nome Airport Runway Safety Area Expansion Nomé, Alaska DOT&PF Project No. 61413

2012

FIGURE



Truck Fill Stand

VUND RUNN

Proposed Stockpile Area and

Equipment Storage Area

Existing Airport Boundary **Snake River**

Notes:

- 1. Property Acquisition includes purchase of property required to construct all elements of the proposed action, including purchase of property to be used for future navigational aid relocation and existing and future avigation easements.
- 2. Where land is to be acquired within areas of known or suspected contamination for project improvements (not stockpile area), only avigation easements would be acquired. No construction impacts are anticipated within areas of known or suspected contamination. (See also Figure 6)
- 3. No Property Acquistion of homes or relocation of residences proposed.
- 4. Potential Property Acquisition includes maximum anticipated extent of property that may be required for purchase. The final extents of property acquisition are dependent on the results of the appraisal process.

Path:

MAIN RUNWAY 10-23



NORTON SOUND

0	1,600	3,200	
	Scale in Feet		

CONTAMINATED AREAS Nome Airport Runway Safety Area Expansion Nome, Alaska DOT&PF Project No. 61413



2012 FIGURE

