Environmental Assessment
for the
Construction of an Outdoor Running Track
at
Eielson Air Force Base, Alaska

June 2011

Prepared by:
354th Fighter Wing
354th Civil Engineer Squadron
Eielson Air Force Base, Alaska

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FINDING OF NO SIGNIFICANT IMPACT (FONSI)
and
FINDING OF NO PRACTICABLE ALTERNATIVE (FONPA)
for the
Construction of an Outdoor Running Track
at
Eielson Air Force Base (AFB), Alaska

Introduction

The United States Air Force (USAF) is proposing to construct an outdoor running track located on Eielson AFB, Alaska. The quarter-mile track will be asphalt-covered and will include signage to designate start and finish points for Air Force fitness testing. Currently, a linear stretch of roadway on Arctic Avenue is utilized for fitness testing and does not meet Air Force Instruction (AFI) 36-2905, *Fitness Program*, effective 1 July 2010 guidelines.

Proposed Action

The Proposed Action is to construct an outdoor running track adjacent to the Baker Field House. The project site will be excavated to remove existing sod and filled above existing grade and base flood level with reclaimed asphalt pavement from the Golf taxiway. The quarter-mile track will be covered in two inches of asphalt and will include signage to designate start and finish points for Air Force fitness testing. Topsoil and seed will be added once the track is built. Approximately 3.4 acres of vegetation and 1,400 cubic yards of soils would be impacted with this alternative.

Alternative 1

This alternative would have the same size as the Proposed Action, but would be located outside of the 100-year floodplain. This location is half a mile from the Baker Field House and would require additional parking to accommodate patrons. This alternative would be located approximately 0.5 miles north of the Field House. Approximately 3.8 acres of vegetation and 3,300 cubic yards of soils would be impacted with this alternative.

No Action Alternative

Under the No Action Alternative, construction of the running track would not occur.

Environmental Impacts of the Proposed Action

Resources identified as significant during scoping include 100-year floodplain resources.

Floodplain

The Proposed Action would result in the loss of 1.3 acres of land located within the 100-year floodplain. Design of the running track at this location would be in accordance with Alaska's requirements and the proposed footprint would need to be elevated approximately five feet to meet state requirements. There would be no real change in the risk of flood loss and its associated impacts on human health, safety, and welfare; therefore, there would be no impacts. Should a 100-year flood event occur, Eielson AFB's Emergency Management element (354 CES/CEX) will notify track patrons and evacuate accordingly.

Wetlands

The Proposed Action will not impact wetlands because no wetlands were found in the footprint of the site.

Biological Resources

Impacts to biological resources from the proposed project are expected to result mainly from the loss of 1.2 acres of vegetation, consisting of grasses that will be removed for the footprint of the project.

Threatened or Endangered Species

The proposed project area is not suitable habitat for any of the threatened or endangered species occurring in the Alaskan interior.

Historical or Cultural Resources

Most archeological sites on Eielson AFB lands have been identified and mapped. The proposed project is not associated with any known sites. In the event that historic or cultural sites are discovered during project construction, activities will be halted and a professional archeologist will evaluate the find.

Air Quality

The Proposed Action will have minor air quality impacts during construction due to fugitive dust and machinery exhaust. Such impacts will be highly localized and temporary in nature.

Best Management Practices (BMPs)

Standard best management practices are discussed in the environmental assessment (EA) and have been incorporated into the project design to minimize impacts to the

environment. These include using silt fences to prevent siltation of nearby wetland areas, avoiding construction during bird migration and nesting periods, incorporation of dust control measures to mitigate fugitive dust, and re-vegetating disturbed soils to prevent erosion.

Restrictions/Requirements

Construction activities under the Proposed Action are anticipated to disturb over one acre of land and would require an Alaska Pollutant Discharge Elimination System Permit for Construction Activities form the Alaska Department of Environmental Conservation.

Public Comment

The Draft EA/FONPA and FONSI was made available for a 30-day public review and comment period through publication of a notice of availability which ran in the Fairbanks Daily Newsminer (posted 26 June 2011 and 26 July 2011). A copy of the Draft EA/FONPA and FONSI was made available for review at the Noel Wien Public Library in Fairbanks, Alaska. No public comment was received from the public noticing of the EA/FONPA and FONSI for this project.

Procedural Requirements

Findings

Pursuant to the National Environmental Policy Act of 1969 (NEPA), the Council on Environmental Quality (CEQ) implementing regulations for NEPA (40 CFR Part 1500-1508), and Air Force Instruction 32-7061, *Environmental Impact Analysis Process* (32 CFR Part 989), the Air Force has conducted an EA for the construction of an outdoor running track adjacent to Baker Field House. This FONSI/FONPA has been developed pursuant to information provided in the accompanying EA.

Finding Of No Practicable Alternative: Eielson AFB is an Air Force facility that operates, maintains, and trains combat forces in close air support of military operations worldwide. Eielson AFB must have adequate physical fitness training and testing facilities available to base personnel as prescribed by AFI 36-2905, *Fitness Program*, effective 1 July 2010. AFI 36-2905 implements Air Force Policy Directive (AFPD) 36-29, *Military Standards*, dated 29 October 2009. Taking all the environmental, economic, safety, and other pertinent factors into account, pursuant to Executive Order 11988, and the authority vested in me by the Secretary of the Air Force Order 791.1, I find that there is no practicable alternative to the impacting of 1.3 acres of floodplains and that the Proposed Action includes all practical measures to minimize harm to the environment. This decision has been made after taking into account all submitted information and considering a full range of alternatives that are within the legal authority of the Air Force, and which would meet project requirements.

Finding Of No Significant Impact: Based on the accompanying EA which was conducted in accordance with the requirements of the National Environmental Policy Act, the Council on Environmental Quality, and Air Force Instructions, I conclude that the construction of an outdoor running track adjacent to Baker Field House will not result in significant impacts to the environment and that preparation of an environmental impact statement is not warranted.

EARL S. BOSWORTH, Colonel, USAF
Director, Installation and Mission Support

1 Aug 11
Date

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Appendices

Appendix A-
Public Involvement

1.0 Purpose and Need for Action

This Environmental Assessment (EA) examines the potential for impacts to the environment resulting from construction of an Outdoor Running Track on Eielson Air Force Base (AFB). As required by the National Environmental Policy Act (NEPA) of 1969, federal agencies must consider environmental consequences in their decision-making process. The EA provides analysis of the potential environmental impacts from both the Proposed Action and its alternatives.

1.1. Introduction

Eielson AFB is located in central Alaska within the Fairbanks North Star Borough (FNSB), approximately 120 miles south of the Arctic Circle and 26 miles southeast of Fairbanks. Eielson AFB is located in the Tanana River Valley on a low, relatively flat, floodplain terrace that is approximately 2 miles north of the active river channel (Figure 1-1, Area Map and Figure 1-2, Location Map).

The 354th Fighter Wing (354 FW), is the host unit at Eielson AFB and is assigned to the 11th Air Force, headquartered at Elmendorf AFB in Anchorage. The 354 FW with F-16 C/D Fighting Falcon aircraft operates, maintains, and trains combat forces in close air support and interdiction missions in support of the war plans of three operational theaters. In addition, the wing operates and maintains Pacific Air Forces (PACAF's) largest air-to-ground bombing range complex and conducts PACAF's premier large force exercise, RED FLAG-Alaska (RF-A). Eielson AFB supports the operations of the Alaska Air National Guard (AKANG) 168th Air Refueling Wing (168 ARW) which operates KC-135 Stratotanker aircraft in support of PACAF operations. The wing hosts the USAF Arctic Survival School, the AKANG Detachment 1, 210th Rescue Squadron, operating HH-60 helicopters, and Detachment 460 of the Air Force Technical Applications Center; Detachment 632, Air Force Office

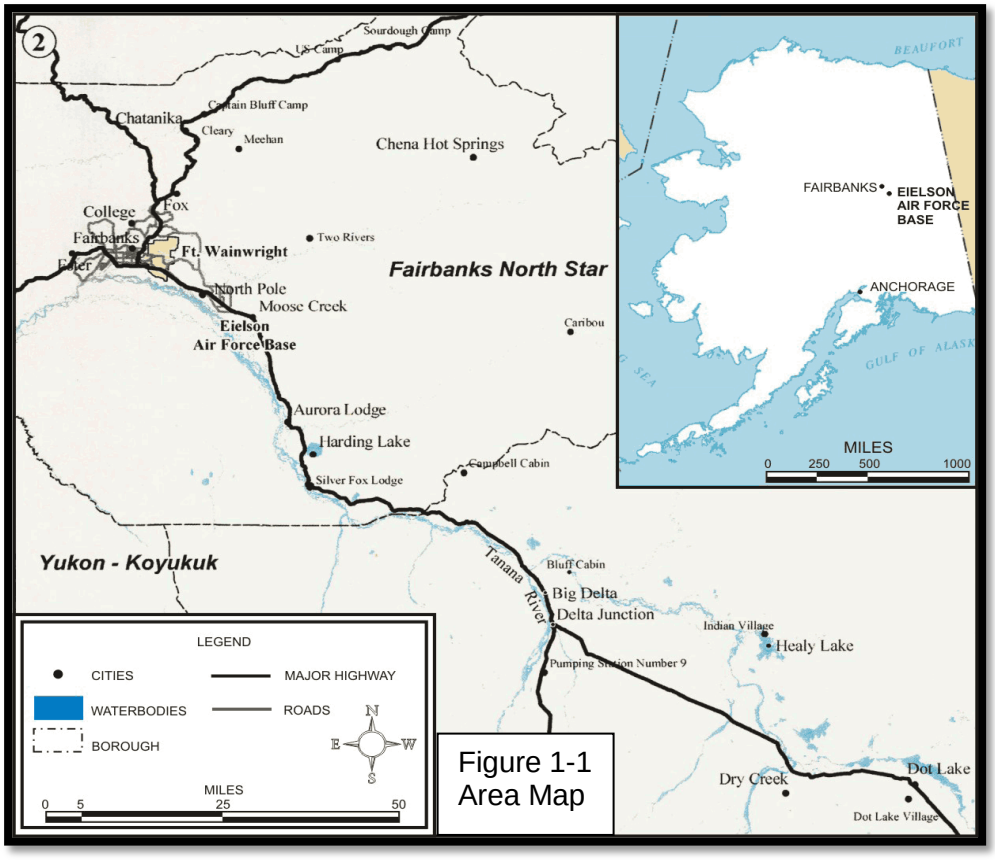

Figure 1-1
Area Map

of Special Investigations; Air Force 66th Training Squadron; 210th Rescue Squadron. Eielson AFB also supports the 13th Space Warning Squadron at Clear AFS.

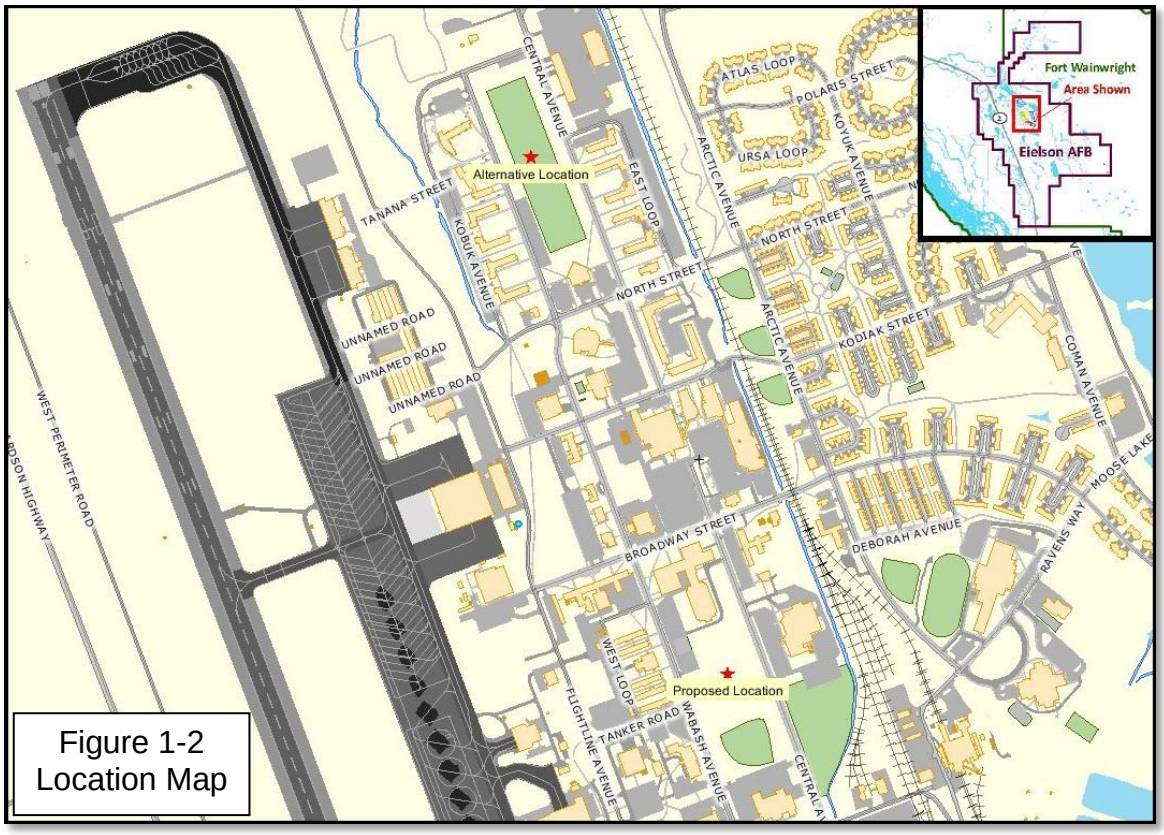

Figure 1-2
Location Map

1.2. Purpose and Need for the Action

The purpose of the action is to construct an outdoor running track. The quarter-mile track will be asphalt-covered and will include signage to designate start and finish points for Air Force fitness testing.

Currently, no outdoor running track exists for base personnel. AFI 36-2905, Attachment 8, paragraphs A8.1. and A8.2. require a testing location that includes: a track of accurate and level distance such as 440 yards times six (6) laps; or 6 laps on a 400-meter track plus an additional 46 feet, limited exposure to traffic, a safe shelter procedure, and communication/access for emergency medical services. AFI 36-2905, Attachment 8, paragraph 8.2.12. states, "Safety is the number one concern." Currently, fitness testing during non-inclement weather is primarily conducted on a linear stretch of roadway located on Arctic Avenue (Figure 1-3 Current testing location) which is over a mile away from the main developed portion of the base. Base personnel performing running tests must transport themselves to this location. Additionally, the current fitness testing location requires blocking access to road that offers primary emergency vehicle access (fire and ambulance) to the FamCamp, Outdoor Recreation pavilion, and Engineer Hill

Munitions Storage Area. Closing the road for fitness testing forces emergency vehicles to use a longer, secondary access route that delays emergency response times.

The proposed location is convenient to the Fitness Center at the corner of Broadway Street and Central Avenue, and to the 354 Medical Group Clinic located to the east directly across Central Avenue. The outdoor track would provide a place to time 1-½ mile fitness runs and other fitness tests, for general physical fitness for Base employees and families, for Base summer game activities, and for future track-related events. An outdoor running track allows for a permanent, seasonal outdoor Air Force Fitness Testing location and it will increase fitness of base personnel.

Locating the Proposed Action adjacent to the Fitness Center also allows patrons of the running track to utilize the gym for other aspects of physical fitness. The Fitness Center provides an established parking area and a convenient location for patrons to use locker room facilities (showers, restrooms, and changing area). The Alternative 1 location would need additional parking space to accommodate patrons of the running track.

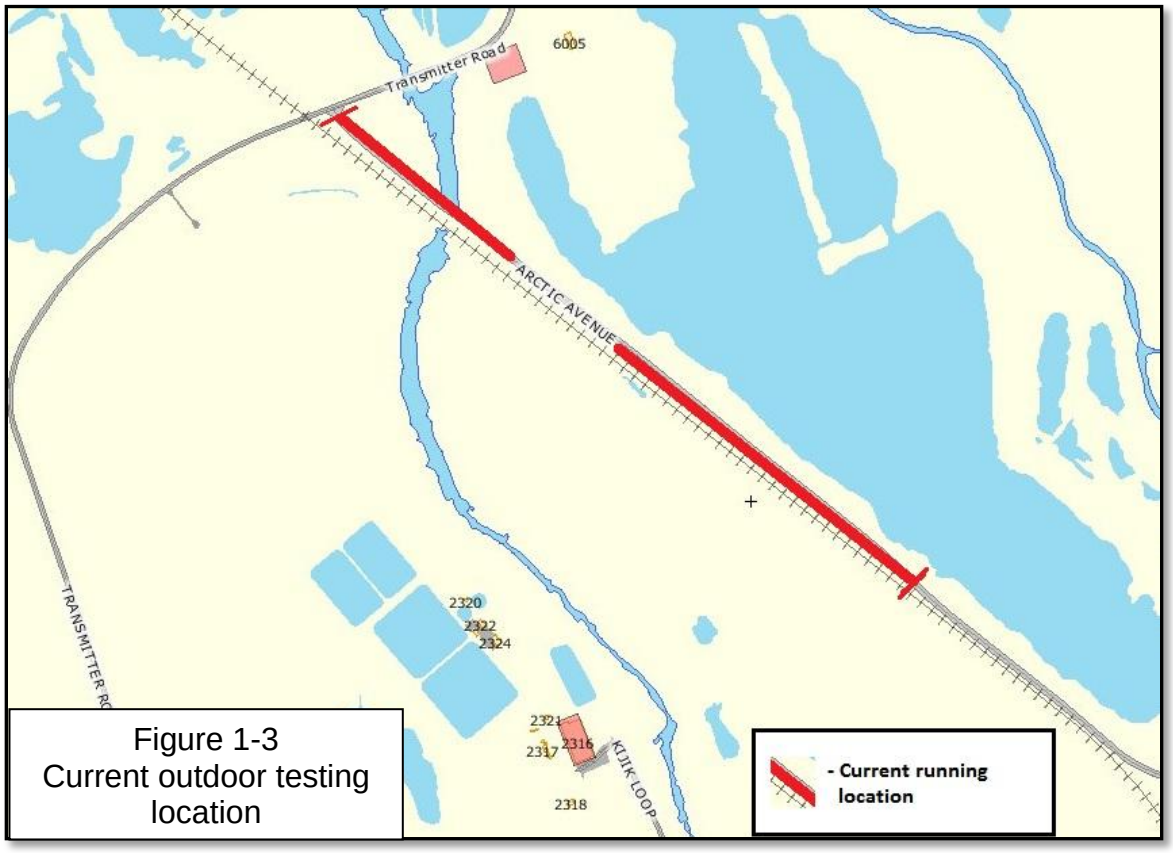

Figure 1-3
Current outdoor testing location

1.3. Scope of the Environmental Review

This EA identifies, describes, and evaluates the potential environmental impacts that may result from the construction of an outdoor running track on Eielson AFB. As

appropriate, the affected environment and environmental consequences of the Proposed Action and alternatives may be described in terms of site-specific descriptions or regional overview. Finally, the EA identifies measures that would prevent or minimize environmental impacts.

1.4. Applicable Regulatory Requirements

These regulations require federal agencies to analyze potential environmental impacts of proposed actions and alternatives and to use these analyses in making decisions on a proposed action. All cumulative effects and irretrievable commitment of resources must also be assessed during this process. The Council on Environmental Quality (CEQ) regulations declares that an EA is required to accomplish the following objectives:

- Briefly provide sufficient evidence and analysis for determining whether to prepare an EIS or a Finding of No Significant Impact (FONSI).
- Aid in an agency's compliance with NEPA when an EIS is not necessary, and facilitate preparation of an EIS when necessary.

The Clean Water Act, 33 U.S.C. §1251 et. seq. Sections 401 and 402, requires a state issued permit (State of Alaska Pollutant Discharge Elimination System permit), and compliance with provisions of permits regarding discharge of effluents to surface waters and additional wetland protection. A Storm Water Pollution Prevention Plan (SWPPP) would need to be developed and a Notice of Intent (NOI) would need to be filed prior to construction in accordance with the APDES General Permit for Discharges from Large and Small Construction Activities AKR100000.

EO 11988: Floodplain Management requires that where there is no practicable alternative to development in floodplains and wetlands, Federal agencies are required to prepare a floodplains and wetlands assessment and design mitigation measures.

EO 12088: Federal Compliance with Pollution Control Standards [43 FR 47707 October 17, 1978] requires Federal Agencies to consult with EPA and State Agencies regarding the best techniques and methods for the prevention, control, and abatement of environmental pollution.

EO 12898: Environmental Justice requires federal agencies to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations

Hazardous Communication Standard [29 CFR 1910.1200] requires compliance to ensure that works are informed of all chemical hazards in the workplace and are trained to handle them.

Hazardous Materials Transportation Law [49 USC 5105127 et seq.] requires compliance with the requirements governing hazardous materials and waste transportation which applies primarily to the construction phase.

Migratory Bird Treaty Act [16 USC 703 et seq.] requires consultation to determine whether construction or operation of project facilities has any impacts on migrating bird populations.

Endangered Species Act [16 USC 1531-1544] requires consultation to determine whether construction or operation of project facilities pose an impact on endangered or threatened species.

NEPA [42 USC 4321 et seq. 40 CFR 1500-1508] and AFI 32-7066 and 32-7061 directs all Federal agencies in the implementation of NEPA.

2.0 Description of the Proposed Action and Alternatives

This section describes the process used by the Air Force to formulate alternatives for implementing the Proposed Action and the No Action Alternative. These three alternatives provide the decision maker with a reasonable range of alternatives from which to choose.

2.1. Proposed Action- Construction of an Outdoor Running Track

The Proposed Action is to construct an outdoor running track adjacent to the Baker Field House (Fitness center) in an area of improved grounds (improved grounds receive routine mowing to keep grass height between 2-inches and 4-inches). The project site will be excavated to remove existing sod and filled above existing grade and base flood level with reclaimed asphalt pavement from the Golf taxiway. The quarter-mile track will be covered in two inches of asphalt and will include signage to designate start and finish points for Air Force fitness testing. Topsoil and seed will be added once the track is built.

The proposed location was previously utilized as an outdoor track area. Over the years the track was not maintained and was eventually re-seeded. The location is currently a vacant, grassy area. The Proposed Action would permanently establish an outdoor running track and serve as an extension of the Fitness Center.

2.2. Alternative 1

Under Alternative 1, construction of the outdoor running track would occur in an alternative location. The site would be located between Wabash and Central Avenues adjacent to Airmen dormitories in an area of improved grounds. The location is half a mile from the Fitness Center activities and an additional parking area would be required to accommodate personnel using the track.

2.3. No Action Alternative

Under the No Action Alternative, construction of the outdoor running track would not occur. Selection of the No Action Alternative would result in continued use of the current outdoor location and the indoor facility during inclement weather.

2.4. Other Alternatives Considered but Not Carried Forward for Analysis

The selection standards (requirements and constraints) used to determine reasonable alternatives included the following factors:

- Budget: as a result of fiscal constraints, the development/project costs associated with alternatives needed to be kept to a minimum; this limited the number of reasonable alternatives to areas requiring minimal construction

- Time: the need to provide an adequate facility for physical fitness training and testing during a short construction season limited the number of reasonable alternatives to areas requiring minimal construction

- Technical: the technical requirements established under AFI 36-2905 Attachment 8 (1.5-Mile Run and 1.0-Mile Walk Course Requirements) limited the number of reasonable alternatives to running/walking tracks, away from traffic, with access to emergency services

- Environmental: the significant volume of wetlands associated with semi-improved and un-improved grounds at Eielson AFB combined with budgetary and time requirements limited the number of reasonable alternatives

As a result of these requirements and constraints, only the reasonable alternatives (Proposed, Alternative 1, and No Action) received an assessment of the potential environmental impacts.

2.5. Alternatives Impacts Matrix

Table 2-1: Summary of Environmental Impacts			
	Proposed Action	**Alternative 1**	**No Action Alternative**
Geology, Soils, and Permafrost	Minor, short-term	Minor, short-term	None
Floodplains	Minor adverse, short-term	None	None
Climate	None	None	None
Air Quality	Minor, short-term	Minor, short-term	None
Ground and Surface Water	Minor, short-term	Minor, short-term	None
Noise	Minor, short-term	Minor, short-term	None
Vegetation	Minor, short-term	Minor, short-term	None
Wetlands	None	None	None
Aquatic/Fishery Resources	None	None	None
Wildlife Resources	Minor, short-term	Minor, short-term	None
Threatened and Endangered Species	None	None	None
Cultural and Historic Resources	None	None	None
Recreational Resources	Positive beneficial	Minor adverse, long-term	None
Socioeconomic Factors	Minor beneficial	Minor beneficial	
Environmental Justice	None	None	None

3.0 Affected Environment

This section describes the operational concerns and the environmental resources relevant to the decision that must be made concerning this Proposed Action. Environmental concerns and issues relevant to the decision to be made and attributes of the potentially affected environment are studied in greater detail in this section. This descriptive section, combined with the definitions of the alternatives in Section 2, and their predicted effects in Section 4, establish the scientific baseline against which the decision-maker and the public can compare and evaluate the activities and effects of all the alternatives.

3.1. Physical Resources

Eielson AFB encompasses approximately 19,790 acres and is isolated from major urban areas. The portion of Eielson AFB that contains the proposed project area lies on the abandoned floodplain of the Tanana River, with elevations ranging from 525 to 550 feet above Mean Sea Level (MSL). The surface of the floodplain is relatively smooth and slopes gently downward to the northwest at a gradient of about 6 feet per mile.

3.1.1. Geology, Soils, and Permafrost

The geology of the area is classified as Precambrian and Paleozoic-age metamorphic rocks of the Yukon-Tanana crystalline complex, formally known as the Birch Creek Schist. The rocks have been intruded by igneous rocks of Mesozoic and Cenozoic age referred to as the Eielson AFB plutons. The igneous and metamorphic rocks have been overlain by younger sedimentary Pleistocene and Holocene loess deposits. These deposits originated from the floodplain of the Tanana River and the foothills of the Alaska Range. The loess varies in depth from a few inches on the ridge tops to 40 to 100 feet in the valleys.

Soils in the Tanana River Valley consist of unconsolidated silty sands and gravels, organic and sandy silts, and clays. Floodplain soils nearest the active channels are sandy with a thin silt loam layer on the surface. On higher terraces, the soils become predominately silt from the Salchaket series. Along older river terraces, silt loam soils, which contain significant organic components, often dominate. These soils tend to be cold and wet and are generally underlain by permafrost. Approximately two-thirds of Eielson AFB is covered with soils containing discontinuous permafrost. This preponderance of permafrost soils contributes to the large percentage of vegetated wetlands occurring on undeveloped base lands.

3.1.2. Floodplains

Floodplains are a predominate feature on Eielson AFB lands. The developed portion of Eielson AFB is primarily an area filled by gravel to elevate potential building sites above the 100-year floodplain of nearby watersheds. Approximately 33 percent, or 6,444 acres, of Eielson AFB is designated as floodplain.

3.1.3. Climate

Eielson AFB has the northern continental climate of Interior Alaska, which is characterized by short, moderate summers, long cold winters, and low precipitation and humidity. The mean annual precipitation in the area is 11.2 inches, much of which comes as snow. The coldest month is January, with an average temperature of minus 10.3°F and an average minimum temperature of minus 19.2°F; the warmest month is July, with an average temperature of 61.7°F and an average maximum of 71.9°F. The minimum amount of daylight is shortest in December with 3 hours 47 minutes of available daylight.

May and June have the highest winds, with average wind speeds of 7.7 and 7.2 miles per hour, respectively. During most of the year, the prevailing wind direction is from the north at an average of 5.15 miles per hour. However, in June and July, the wind direction is typically from the southwest.

3.1.4. Air Quality

Air quality is generally good at Eielson AFB. The Fairbanks North Star Borough is in attainment for carbon monoxide (with a maintenance designation), but is in non-attainment for $PM_{2.5}$. The Proposed Action is outside the non-attainment boundary for $PM_{2.5.}$ The Clean Air Act designates areas as attainment, non-attainment, maintenance, or unclassified with respect to national ambient air quality standards (NAAQS). Non-attainment areas are locales that have recently violated one or more of the NAAQS and must satisfy the requirements of State or Federal Implementation Plans (SIPs or FIPs) to bring them back into conformity with the applicable air quality standards. Significant temperature inversions during winter, coupled with low winds and a restricted geographic basin often serve to concentrate air pollutants in the Fairbanks-North Pole area. Pollutants of concern include carbon monoxide, emitted primarily from motor vehicles, and particulates, which are the result of combustion of a variety of fossil fuel types. Major particulate emission sources include coal burning power plants, residential wood stoves, forest fires, vehicle emissions, and road dust.

The Environmental Protection Agency has indicated that particulate matter smaller than 2.5 microns are a potential concern for Eielson AFB. At EPA's direction the base is monitoring that parameter and will provide data to them on an annual basis.

3.1.5. Ground and Surface Water

Eielson AFB is located over a shallow unconfined aquifer. The aquifer is approximately 250 feet thick, extends to bedrock, and has a regional gradient of about 5 feet per mile flowing to the north-northwest. The water table varies from the surface in adjacent wetlands to 10 feet below ground level in developed areas. The base uses the local aquifer for its drinking water and monitors groundwater quality in a number of locations as part of its Installation Restoration Program. Localized contamination of the aquifer has been identified in the industrial area of the base, but the overall quality of groundwater at Eielson AFB is good.

Aquatic bodies on Eielson AFB include streams, wetlands, and lakes. There are approximately 28 miles of streams; 10,133 acres of wetlands; 12 lakes (11 are man-made); 80 ponds (10 are naturally-occurring and 70 man-made) totaling 560 acres. There are 6,770 acres of land within the 100-year floodplain on the main base. The man-made lakes and ponds were created during the excavation of gravel deposits for use as fill material for construction projects on base.

Approximately 51 percent, or 10,133 acres, of Eielson AFB is classified as wetlands, with 9,391 acres being vegetated wetlands and the remainder being lakes, ponds, and streams. Wetlands and low gradient alluvial streams comprise most of the surface water resources on Eielson AFB, with wetlands dominating the low-lying areas within and surrounding the installation. Most wetland areas were created as a result of surface waters becoming trapped in the thawed layer over the permanently frozen subsurface (permafrost). Flood periods tend to occur during spring snowmelt and during the middle to late summer, when heavy rains or warm air quickly brings glacier fed mountain streams to flood capacity. Several lakes and extensive wetlands surround the airfield in the cantonment area. Among these are Bear, Polaris, Moose, Hidden, Pike, Rainbow, Scout, Grayling, and Tar Kettle lakes. Creeks that can be found in the vicinity of the airfield include French and Moose creeks.

Piledriver and Garrison sloughs are the two largest streams in the vicinity of the airfield. Piledriver Slough, which discharges into the Tanana River, is located along the western edge of Eielson AFB and approximately 4,000 feet west of the airfield and parallel to the runways. Approximately 12 miles of Piledriver Slough occurs on Eielson AFB lands. The slough receives no runoff from the urban developed area of the base and has good water quality.

3.1.6. Noise

Aircraft generate by far the most noise on Eielson AFB. Noise levels associated with aircraft during flying hours can exceed 80 decibels (dB) in the vicinity of the flight line; however, the decibel level drops off to a maximum of 70-dB in the closest residential area, Moose Creek, just north of the base. A 65-dB level is not recommended for housing areas by EPA standards (Noise Effects Handbook, US EPA, 1981). Construction noise is potentially another source of noise, but it is not considered to be a concern due to its temporary nature and relatively low dB level. Figure 3-2 is a chart that provides a scale of noise levels associated with typical daily activities.

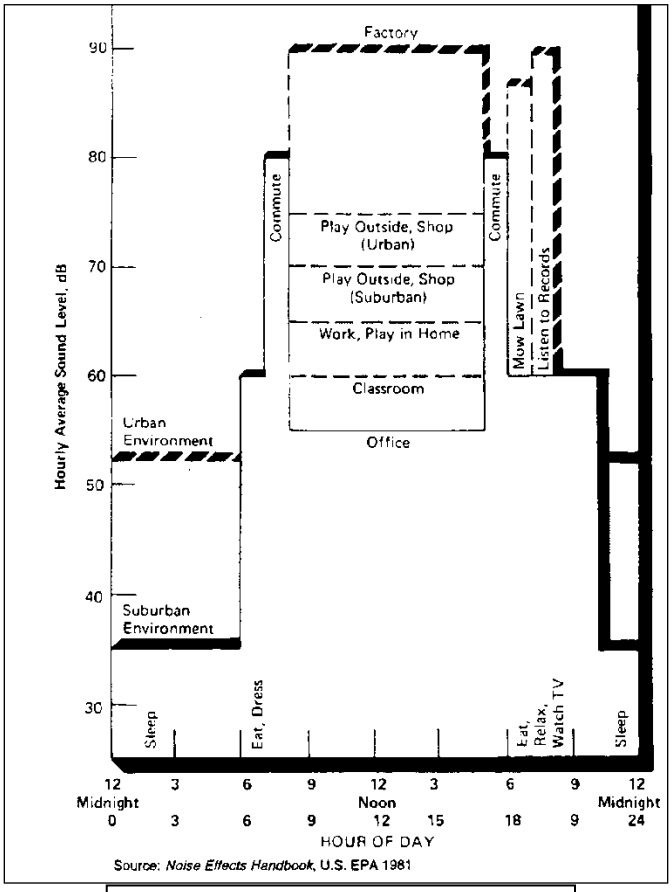

Figure 3-2 Noise Levels

3.2. Biological Resources

3.2.1. Vegetation

The vegetation of the Tanana River Valley in the vicinity of Eielson AFB is typical of boreal forest or taiga habitats. The boreal forests of Eielson AFB are predominantly evergreen forests dominated by black spruce and white spruce (*Picea glauca*), but also include extensive stands of deciduous forests containing paper birch (*Betula papyrifera*), quaking aspen (*Populus tremuloides*), and balsam poplar (*P. balsamifera*). Extensive areas of shrub and herbaceous vegetation are found in wetlands, lowland areas, and the active floodplain, and are dominated by willows and other shrubs, sedges, and grasses. Bog areas are dominated by black spruce stands intermixed with peat moss (*Sphagnum* spp.) and cottongrass (*Eriophorum vaginatum)*.

The northern boreal forest of Interior Alaska is a fire dependent ecosystem. It is a mosaic of vegetation types made up of a few primary species of wide ecological amplitude that respond to specific combinations of physical site characteristics. These characteristics are mainly topographical and include slope and aspect and other physical characteristics such as microclimate, soil temperature, and moisture regimes. These in turn influence the type of vegetation that will be found there.

3.2.2. Wetlands

Wetlands are a predominant physical feature of Eielson AFB lands. For the most part, the developed portion of the base, and portions of the elevated hills to the east, are classified as uplands. However, some portions of the developed area of the base, as well as major portions of the undeveloped areas, are designated Section 404 wetlands by the Corps of Engineers. Based on current delineation figures for wetlands on Eielson AFB, 51 percent of the undeveloped portion of the base are wetlands. This includes about 10,133 acres of vegetated wetlands and 723 acres of lakes, ponds, and streams.

3.2.3. Wildlife Resources

The surrounding Tanana Valley provides breeding habitat for a wide variety of migratory bird species. Bird species found on Eielson AFB include spruce grouse *(Dendragapus canadensis*), ruffed grouse (*Bonasa umbellus*), northern goshawk (*Accipiter gentilis*), sharp-shinned hawk (*A. striatus*), great horned owl (*Bubo virginianus*), red-tailed hawk (*Buteo jamaicensis*), and American kestrel (*Falco sparverius*). During winter, willow ptarmigan (*Lagopus lagopus*) and rock ptarmigan (*L. mutus*) are common on Eielson AFB. Over 20 species of waterfowl, including geese, ducks, loons, grebes, and scoters, use aquatic habitats on the installation.

There are 32 species of mammals found on Eielson AFB. Common species include moose (*Alces alces*), black bear (*Ursus americanus*), grizzly bear (*U. arctos*), snowshoe

hare (*Lepus americanus*), marten (*Martes americana*), red squirrel (*Tamiasciurus hudsonicus*), beaver (*Castor canadensis*), muskrat (*Ondatra zibethicus*), mink (*Mustela vison*), meadow vole (*Microtus pennsylvanicus*), red-back vole (*Clethrionomys rutilus*), and meadow jumping mice (*Zapus hudsonius*).

3.2.4. Threatened and Endangered Species

No threatened or endangered species, as designated by the US Fish and Wildlife Service (USFWS), typically occur in any of the project areas included in the two action alternatives. This was the conclusion of an Eielson AFB contract study entitled *Biological Survey, Final Report 1994,* that addressed the potential for the presence of endangered species on base lands. As of 2009, the USFWS has not listed any new federal species or critical habitat that may occur on Eielson AFB or its training lands. The State of Alaska has not listed any new threatened or endangered species that may occur on Eielson AFB or its training lands. Should any threatened or endangered species become resident to Eielson managed lands, a formal consultation with USFWS will be initiated. The 354th Civil Engineer Squadron's Natural Resource Manager (Mr. R. Gunderson) maintains open communication with the USFWS; he conducted an informal consultation on 14 April 2010 to check on changes to the presence of endangered or threatened species on base lands.

3.3. Cultural and Historic Resources

In 1994, Eielson AFB contracted for the preparation of a predictive model for the discovery of prehistoric cultural resources on base lands. The predictive model was then used to conduct an evaluation of cultural resources on Eielson AFB as required by Section 110 of the National Historic Preservation Act. The areas associated with the Proposed Action and Alternative 1 has been determined to not contain cultural or archeological resources. In the event that during project excavation/construction any cultural resources were encountered, activities would cease until the resources were evaluated.

3.4. Recreational Resources

Recreation within Eielson AFB managed lands includes hunting, trapping, off-road vehicle use, snowmobile use, fishing, and outdoor physical fitness areas.

3.5. Socioeconomic Factors and Environmental Justice

Environmental justice, as it pertains to the NEPA process, requires federal agencies to identify and address disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations.

The area surrounding the proposed project is utilized primarily by the military to support the military function. The closest residential area to this site is Moose Creek, approximately 5 miles to the northwest This residential area does not exhibit characteristics of low-income or minority populations that are not exhibited in the Fairbanks area population as a whole. Similarly, no native claims or allotments are located within a 10-mile radius of the project area. Based on the environmental impacts identified in this EA and on a corresponding environmental justice analysis, it is felt that no disproportionate impact to minority or low-income populations would occur from implementation of this project.

4.0 Environmental Consequences

Section 4.0 is organized by resources, with the environmental consequences evaluated for each alternative. This discussion will provide a scientific and analytic basis for the comparisons of the alternatives and describes the probable consequences (impacts and effects) of each alternative on selected environmental resources.

4.1. Physical Resources

4.1.1. Geology, Soils, and Permafrost

Proposed Action: Construction of the project would alter the physical environment mainly by the removal of sod in the footprint of the proposed running track. The material would be stockpiled and eventually disposed of at an acceptable site (for example, as cover for the installation's permitted landfill). Approximately 1,400 cubic yards of soils would be excavated resulting in minor impact to soils. Exposed soils within the project area will be re-vegetated to minimize soil erosion after construction.

Alternative 1: Construction of the project would alter the physical environment mainly by the removal of sod in the footprint of the proposed running track. The material would be stockpiled and eventually disposed of at an acceptable site (for example, as cover for the installation's permitted landfill). An additional parking area would also be required to accommodate base personnel utilizing the running track. Approximately 1,400 cubic yards of soils for the track area and 1,900 cubic yards of soils for the parking area would be excavated resulting in minor impact to soils. Exposed soils within the project area will be re-vegetated to minimize soil erosion after construction.

No Action Alternative: There would be no impacts to soils from this alternative.

4.1.2. Floodplains

Proposed Action: The Proposed Action would result in the loss of 1.3 acres of land located within the 100-year floodplain. Design of the running track at this location would be in accordance with Alaska's requirements. The proposed footprint would need to be elevated approximately five feet to meet state requirements. There would be no real change in the risk of flood loss and its associated impacts on human health, safety, and welfare; therefore, there would be no impacts. Should a 100-year flood event occur, Eielson AFB's Emergency Management element (354 CES/CEX) will notify users and evacuate accordingly.

Alternative 1: There would be no impacts to floodplains from this alternative.

No Action Alternative: There would be no impacts to floodplains from this alternative.

4.1.3. Climate

There would be no impacts to climate under any of the alternatives.

4.1.4. Air Quality

Proposed Action: Some minor, short-term impacts from emissions associated with the operation of construction machinery would result from the Proposed Action.

Alternative 1: Impacts to air quality from this alternative would be similar to those for the Proposed Action.

No action alternative: No impacts to air quality would result from this alternative.

4.1.5. Ground and Surface Water

Proposed Action and Alternative 1: There would be no impacts to groundwater with the construction of the running track and few if any impacts to surface waters. During construction, minor localized siltation could occur, however, silt fences would be used if needed to minimize siltation.

Since activities would result in disturbance of more than one acre of land, an Alaska Pollutant Discharge Elimination System Permit for Construction activities from the Alaska Department of Environmental Conservation would be required. As part of the permitting process, the developer would need to submit an erosion and sedimentation control plan (Stormwater Pollution Prevention Plan) that incorporates specific conservation and engineering practices or mitigations. After construction has been completed, all disturbed areas would be stabilized by re-seeding which would minimize erosion and improve infiltration of precipitation.

No action alternative: No impacts to ground and surface water would result from this alternative.

4.1.6. Noise

Proposed Action and Alternative 1: Noise impacts associated with implementation of this action would be short-term and relatively low decibel compared to ambient noise levels that occur with nearby flight line aircraft operations. Noise would be associated with operation of heavy equipment, and would last only for the duration of the summer construction season.

No action alternative: No impacts to air quality would result from this alternative.

4.2. Biological Resources

4.2.1. Vegetation

Proposed Action: Approximately 3.4 acres of improved grounds vegetation, consisting primarily of grasses, would be lost during the construction of the running track. Best Management Practices and control measures, including silt fences and keeping construction equipment in construction areas would be implemented to ensure that impacts to biological resources and the amount of vegetation disturbed would be kept to the minimum required to complete the action. Once construction is complete, approximately 2.2 acres would be re-seeded thus resulting in short-term minimal loss of vegetation.

Alternative 1: Approximately 3.8 acres of improved grounds vegetation, consisting primarily of grasses, would be lost during the construction of the running track and adjacent parking area. Best Management Practices and control measures, including silt fences and keeping construction equipment in construction areas would be implemented to ensure that impacts to biological resources and the amount of vegetation disturbed would be kept to the minimum required to complete the action. Once construction is complete, approximately 2.2 acres would be re-seeded thus resulting in short-term minimal loss of vegetation

No Action Alternative: No impacts to vegetation would result from this alternative.

4.2.2. Wetlands

There would be no impact to wetlands with the Proposed Action and alternatives.

4.2.3. Aquatic/Fishery Resources

There would be no impact to fish and other aquatic resources with the Proposed Action or alternatives.

4.2.4. Wildlife Resources

Proposed Action and Alternative 1: In interior Alaska, the U.S. Fish and Wildlife Service has designated primary migratory bird breeding and nesting season to be between May 1 and July 15 (*The Integrated Natural Resource Management Plan 2003-2008)*. The proposed and alternative 1 locations are improved grounds that receive routine maintenance (mowing) to keep the grass height in a range between 2-inches and 4-inches; improved grounds exhibit a very low probability of providing bird breeding and nesting. Construction personnel would also adhere to Migratory Bird Treaty Act guidelines for the duration of the project.

Selection of the Proposed Action or Alternative 1 represent a low probability of losing even a small amount of bird habitat with the clearing of the vegetation. The Proposed Action and Alternative 1 locations receive regular mowing throughout the summer (May - September). There may be the possibility of minor disruptions to wildlife movement in the area during construction phase. Increased activities such as operation of heavy equipment could result in temporary displacement of wildlife. However, these impacts would be limited in duration and scope.

No action alternative: No impacts to wildlife resources would occur with this alternative.

4.2.5. Threatened and Endangered Species

No impacts to threatened and endangered species will result from any of the alternatives considered in this EA.

4.3. Cultural and Historic Resources

Proposed Action and Alternative 1: No impacts to cultural resources would likely result from the Proposed Action or Alternative 1 as cultural resources on base lands have been fairly well surveyed. Under any circumstances where cultural resources were discovered on base lands, all activities would cease until a cultural resource specialist evaluated the find.

No Action Alternative: No impacts to cultural resources would occur with this alternative.

4.4. Recreational Resources

Proposed Action: Positive impacts would likely result from the Proposed Action as the running track. The track would serve as an extension of the Fitness Center in providing base personnel a centralized area for physical activities.

Alternative 1: Construction of project would pose minor adverse impacts to secondary recreation as the location is utilized as an after duty hours soccer/T-ball area for base children. Several soccer/T-ball fields would be removed to accommodate the footprint of the running track.

No action alternative: No impacts to recreational resources would result from this alternative

4.5. Socioeconomic Factors

Proposed Action and Alternative 1: EO 12898 required federal agencies to identify and address, as appropriate, disproportionately high and adverse human health or

environmental effects of their programs, policies, and activities on minority and low-income populations. The area surrounding the Proposed Action and alternative locations is utilized primarily by the military to support the military function.

No Action Alternative: This alternative would not impact environmental justice.

4.6. Environmental Justice

Proposed Action and Alternative 1: EO 12898 required federal agencies to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations. The area surrounding the Proposed Action and alternative locations is utilized primarily by the military to support the military function.

No Action Alternative: This alternative would not impact environmental justice.

4.7. Unavoidable Adverse Impacts

Table 4-6 - Unavoidable Adverse Impacts

Action	Unavoidable Adverse Impact	Cumulative Effect
Proposed Action	Construction will result in loss of 1.3 acres of floodplain and disturb 1,400 cubic yards of native soils. Site clearing will result in loss of 3.4 acres of improved grounds vegetation.	Cumulative actions are anticipated to result in minor impacts on geologic resources, particularly floodplain and soils. Proposed Action would make negligible adverse contribution.
Alternative 1	Construction will disturb 3,300 cubic yards of native soils. Site clearing will result in loss of 3.8 acres of improved grounds vegetation. Increase foot and vehicle traffic in dormitory area.	Cumulative actions are anticipated to result in minor impacts on geologic resources, particularly soils. Possible adverse risk to safety due to proximity to dormitory areas. Alternative 1 would make negligible adverse contribution.
No Action Alternative	There would be no unavoidable adverse impacts associated with this alternative.	None

4.8. Best Management Practices (BMP)

The project design for the proposed construction of the outdoor running track would incorporate best management practices that are designed to mitigate impacts to the environment. Design aspects include:

- Filter fabric would be placed on ground surface prior to placement of gravel fill;

- Use of silt fences and other construction techniques to prevent siltation into adjacent wetlands during construction;
- Construction would occur before May 1 and after July 15 to avoid potential disruption to migratory and nesting birds;
- Construction activities would include typical dust control measures to prevent fugitive dust problems;
- There will be no equipment encroachment outside the project boundary; and,
- In the event any signs of cultural or historic resources were encountered during construction, the cultural resource specialist would be notified immediately and all activities would cease until a professional archeologist evaluated the finding.

5.0 Cumulative Impacts and Irreversible and Irretrievable Commitments of Resources

5.1. Cumulative Impacts

The short-term increases in air emissions and noise during construction and the impacts predicted for other resource areas, would not be significant when considered cumulatively with other ongoing and planned activities at Eielson AFB and nearby off-base areas. The cumulative impact of the Proposed Action or Alternative 1 with other ongoing activities in the area would produce an increase in solid waste generation; however, the increase would be limited to the timeframe of each project. The area landfills used for construction and construction debris do not have capacity concerns, and could handle the solid waste generated by the various projects.

Other future actions in the region were evaluated to determine whether cumulative environmental impacts could result due to the construction of the running track in conjunction with other past, present, or reasonably foreseeable future actions. None of the future activities are anticipated to result in cumulative impacts when added to potential impacts of the Proposed Project or Alternative 1.

Furthermore, cumulative impacts with regard to occupational health would be minor due to short-term risks associated with construction activity; however, the Proposed Project and Alternative 1 would be required to adhere with appropriate regulations and BMPs to minimize these risks. Neither project will result in cumulatively significant impacts to the environment on Eielson AFB lands.

5.2. Irreversible and Irretrievable Commitments of Resources

Under the Proposed Action, fuels, manpower, economic resources, and other recovery materials related to the construction of an outdoor running track would be irreversibly lost.

The NEPA CEQ regulations require environmental analyses to identify "...any irreversible and irretrievable commitments of resources which would be involved in the Proposed Action should it be implemented" (40 CFR Section 1502.16). Irreversible and irretrievable resource commitments are related to the use of nonrenewable resources and the effects the uses of these resources have on future generations. Irreversible effects primarily result from the use or destruction of a specific resource (e.g., energy and minerals) which cannot be replaced within a reasonable time frame. Construction material such as gravel and the gasoline usage for construction equipment would constitute the consumption of nonrenewable resources. These resources are currently plentiful and the amount of these resources required by this project would be minimal. Irreversible resource commitments associated with the Proposed Action is the loss of 1.3 acres of 100-year floodplain and associated vegetation that will be impacted from construction.

Glossary

5.3. List of Preparers

Ruth B. Forrester wrote all sections of this EA. Ruth has 5 years of experience in environmental planning and natural resource management.

5.4. Persons and Agencies Contacted

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APPENDIX A

Public Involvement

PUBLIC NOTICE
UNITED STATES AIR FORCE

NOTICE OF AVAILABILITY

ENVIRONMENTAL ASSESSMENT (EA):
CONSTRUCTION of an OUTDOOR RUNNING TRACK at EIELSON AIR FORCE BASE (AFB), ALASKA

In accordance with the National Environmental Policy Act and Air Force regulations, Eielson Air Force Base has completed an Environmental Assessment (EA) and Finding of No Significant Impact/Finding of No Practicable Alternative (FONSI/FONPA) to evaluate the potential effects of constructing an outdoor running track at Eielson AFB, Alaska. The quarter-mile running track will be asphalt covered and include signage to designate start and finish points for Air Force fitness testing. The outdoor track would provide a place to time 1-½ mile fitness runs and other fitness tests, for general physical fitness for Base employees and families, for Base summer game activities, and for future track-related events

The analysis considered, in detail, potential environmental effects of the Proposed Action and the No Action Alternative. The results, as found in the EA, show that the Proposed Action would not have a significant adverse impact on the environment, indicating that FONSI/FONPA would be appropriate. An Environmental Impact Statement would not be necessary to implement the Proposed Action.

A copy of the draft EA and FONSI/FONPA is available for review at the Noel Wien Library in Fairbanks. The public is invited to review these documents and make comments during the 30-day comment period from now until July 26, 2011. To comment or for more information, contact Ruth B. Forrester, Base Environmental Planner, by mail at 354 CES/CEAO, 2310 Central Ave, Suite 100, Eielson AFB, AK 99702 or call at (907)377-3365.