

AK-040-07-EA-002  
Case File No.: AA-086833



## **U.S. Department of the Interior Bureau of Land Management**

Anchorage Field Office  
6881 Abbott Loop Road  
Anchorage, Alaska 99507  
<http://www.anchorage.ak.blm.gov>

---

**Environmental Assessment  
Right-of-way  
Anchorage Fire Department  
AA-086833  
AK-040-07-EA-002**



**Location:**  
T. 12 N., R. 3 W., Sec. 3, Seward Meridian  
Campbell Tract, Anchorage, Alaska

**Prepared By:**  
Jefferson D. Johnson  
Realty Specialist  
January 4, 2007

## 1.0 INTRODUCTION

The Bureau of Land Management (BLM), Anchorage Field Office (AFO) has prepared this Environmental Assessment (EA) in response to a land use authorization request from the Anchorage Fire Department (AFD). The AFD wants to install a Fire Weather Station (FWS) on the BLM's Campbell Tract (CT) in the City of Anchorage, Alaska.

The FWS is a Remote Automated Weather Station.

It is a solar-powered unit that gathers weather information on an hourly basis and it monitors:

- Wind speed and direction
- Wind gusts
- Precipitation
- Solar radiation
- Relative humidity
- Fuel moisture
- Soil moisture and temperature



The FWS will collect, store, and forward data hourly (by satellite relay) to a computer system located at the National Interagency Fire Center in Boise, Idaho. The FWS is a complete, self contained system. Everything required to collect, manage, analyze and transmit fire weather data is attached to the frame.

The system is fully operational within 10-15 minutes once deployed. The system automatically self-restarts, has no field programming or calibration, and has a waterproof data logger and a sealed battery recharged by a single solar panel. The unit can be broken down and hand-carried in two parts. It operates on eight to 10 watts of power, roughly equivalent to the power needed to operate a hand-held radio.

AFD purchased four weather stations to collect data in four major geographic areas of the Municipality that are in primary high fire exposure areas: Eagle River valley, Upper Anchorage Hillside (Rabbit Creek), Lower Anchorage Hillside (Campbell Creek) and Girdwood.

## 1.2 PURPOSE AND NEED FOR THE PROPOSED ACTION

### 1.2.1 Purpose of Action

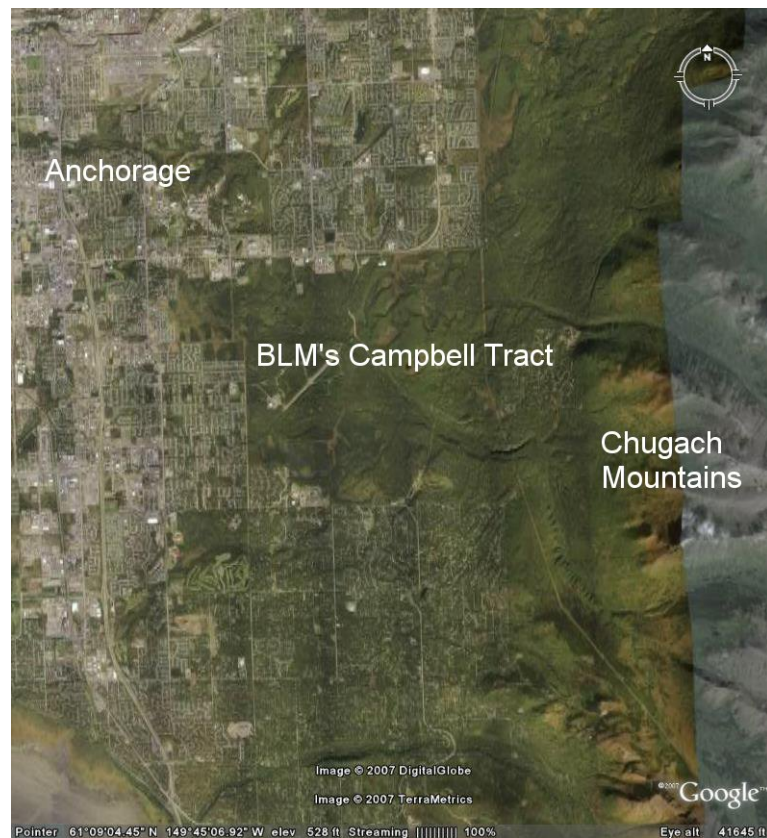
The AFD wants to increase its ability to forecast fire hazards (wildfire risks) by placing FWSs throughout the Municipality of Anchorage (MOA).

### 1.2.2 Need for Action

Half of Alaska's population lives in the MOA. In 2001, Anchorage was declared a community at risk for wildfire by the U.S. Forest Service.

Campbell Tract is adjacent to the municipally owned 4,000 acre Far North Bicentennial Park (FNBP). Campbell Tract and FNBP form a contiguous band of forest between the MOA and the Chugach Mountains. The forest is in a state of transition. Many of the birch and spruce trees are over mature and the forest is going through a succession stage as older trees die out.

The recent spruce bark beetle epidemic created additional forest debris (fuel) by killing thousands of spruce trees. The condition of the forest poses a threat of wildfire to MOA as the debris (fuel) continues to accumulate.



By monitoring specific weather conditions, the AFD would be able to:

- Improve the predictability of high fire danger days through the tracking of variables, which contribute to high fire risk.
- Establish “burn approval days.” Burning brush and trees is used by homeowners to reduce the risk of wildfire property damage.
- Plan for prescribed burning. Prescribed burning is used by the AFD to mitigate wildfire risks.
- Model fire exposure and fire behavior.
- Adequately staff AFD brush rigs and helicopters. Aid the Division of Forestry to staff and pre-position resources. For example, on high fire danger days, AFD would staff two brush rigs and one helicopter. The Division of Forestry would route one or more wildland fire engines to the MOA and provide additional surveillance to the MOA Fire Department.
- Chose to keep airborne resources in the area instead of deploying them to another region. Such actions provide augmented fire suppression resources to AFD if a brush fire occurs in the MOA.

Sitting the FWS on CT would provide gated security for the unit.

**1.3 LAND STATUS**

The FWS will be located on CT. The CT is a 730 acre parcel of land on the southeast edge of the city of Anchorage which has been withdrawn from the Federal public domain for administrative use by the Bureau of Land Management. The withdrawal was renewed in October 2000 and will expire in 2022, Public Land Order 7471, dated 2/11/2002.

**1.4 CONFORMANCE WITH LAND USE PLAN**

The proposed FWS installation on CT is in conformance with BLM’s CT management plan entitled: *Public Use and Resource Management on the Bureau of Land Management Campbell Tract Facility*, dated June 1988:

Limit utility corridors and other rights-of-way to alignments where any impacts on existing natural conditions can be avoided or corrected. Primarily limit these alignments to previously disturbed areas.

[Part IV: The Management Program, Paragraph D.  
1. Action OR-1: Rights-of-way]

**1.5 RELATIONSHIP TO STATUTES, REGULATIONS, POLICIES, PLANS OR OTHER ENVIRONMENTAL ANALYSES**

The Proposed Action and the No Action Alternative are subject to section 302 of the Federal Land Policy and Management Act (FLPMA) of 1976, 43 U.S.C. §§1701 *et. seq.* and the regulations found at 43 CFR Part 2800, which authorize the Secretary of the

Interior to provide for the use, occupancy, and development of the public lands through the issuances of permits, easements, and rights of ways.

The Anchorage Field Office has a precedent in its jurisdiction where if a proponent has adequate land to meet its need, use of the public domain is denied, *Janet Read, BLM Case file No: AA-081642*. In this instance, use of the public land will provide a direct benefit to the BLM, through monitoring of its forest's condition. Installation of the weather station on CT will provide a level of security that is absent on the municipality's lands. Finally, installation of the weather station on CT will provide a public service provided to the Anchorage Community.

## **1.6 SCOPING AND ISSUE IDENTIFICATION**

### **1.6.1 Current Scoping, Issue Identification and Critical and Non-Critical Elements of the Human Environment**

Issues of concern are grouped into categories to facilitate analysis of environmental consequences and to allow for comparison of alternatives. The impact categories are based on federal laws, regulations and institutional resource knowledge. Table 1-6 identifies the critical and non-critical elements of the human environment that were examined to determine whether they may be affected by the proposed action. The rationale used for selecting or dismissing the elements from further consideration is provided in Sections 1.7 and 1.8.

**Table 1-6 Critical and Non-Critical Elements**

Element	Potential Impact	No Impact	Not Present	Element	Potential Impact	No Impact	Not Present
Air Quality *		✓		Native American Religious Concerns *			✓
Aquatic Ecosystem		✓		Recreation		✓	
Area of Critical Environmental Concerns *			✓	Sensitive Species		✓	
Arctic and Sub-arctic Environments		✓		Socioeconomic		✓	
Cultural Resources *		✓		Human Health and Safety	✓		
Environmental Justice *		✓		Soils		✓	
Farm Lands (Prime or Unique) *			✓	Subsistence ANILCA Section 810 *		✓	
Fisheries/anadromous Streams			✓	Surface Protection		✓	
Floodplains *			✓	Threatened or Endangered Species *			✓
Forestry	✓			Vegetation	✓		
Hazardous Material (Wastes/Solids) *		✓		Visual Resources	✓		
Hydrology and Water Rights *		✓		Wetlands/Riparian Zones *		✓	
Iditarod Trail		✓		Wildlife		✓	
Invasive, Non-Native Plants *	✓			Wild and Scenic Rivers *			✓
Minerals		✓		Wilderness Values *			✓

\* DOI Critical Elements

## 1.7 ISSUES SELECTED FOR DETAILED ANALYSIS

### 1.7.1 Forestry

The project will not only benefit the MOA in providing a means to manage wildfire it may also aid in forest management and aid in facilitating the establishment of prescribed burns to eliminate excessive fuels.

### 1.7.2 Human Health and Safety

The project may assist the MOA in reducing its wildfire risks.

### **1.7.3 Invasive, Non-Native Plants**

Vehicular or human traffic to either the preferred installation site or the alternate site (map of proposed sites, page 11.) during installation and maintenance has the potential of introducing invasive or undesirable plant species into the site.

### **1.7.4 Vegetation**

- CCSC Meadow Site (map page 11.) – An amount of grass will be removed to accommodate installation of the FWS, its protective fencing and a treed screening treatment. Installation of fence posts will result in the loss of approximately six one foot square patches of meadow grass. The FWS sets on a frame with four points of contact that will kill the grass under each point of contact. Installation of the fence posts will require excavation by posthole digger of six post holes. Various areas will be excavated to transplant trees to screen the FWS installation from the public. During installation of the FWS, its fencing and the screening treatment, personnel will trample the meadows grass. Maintenance and upkeep of the FWS site will affect the grass in the immediate vicinity of the FWS.
- CT Airstrip Site (map page 11.) – A few trees would need to be removed to accommodate installation of the FWS at this site. The airstrip site is largely graveled.

### **1.7.5 Visual Resources**

- CCSC Meadow Site (for a map of proposed sites, see page 11.) - Installation of the Fire Weather Station will affect the scenic quality of CT. Visitors hiking through the area will see the station tower, solar panel, equipment and screening treatment.
- CT Airstrip Site (for a map of proposed sites, see page 11.) – The FWS installation at this location will cause minimal effects to scenic quality.

## **1.8 ISSUES CONSIDERED BUT DISMISSED FROM FURTHER ANALYSIS 40 CFR §1502.2(b)**

### **1.8.1 Air Quality**

The FWS would not cause any measurable changes to air quality. There would not be any emissions from the monitoring equipment. With the exception of transplanting trees, development of the site will be by hand tools brought in by foot. The equipment used to transplant trees at the meadow site will emit small amounts of gases in an urban environment.

**1.8.2 Aquatic or Riparian Ecosystems**

While Campbell Creek traverses CT, neither proposed site for the FWS is within sufficient proximity to the creek to impact aquatic or riparian ecosystems.

**1.8.3 Area of Critical Environmental Concern (ACEC)**

CT is not an ACEC.

**1.8.4 Arctic and Sub Arctic**

Anchorage and the CT are outside of the Arctic and Sub-arctic ecoregions. Anchorage and CT are located within the Cook Inlet Taiga, an area influenced by the Pacific current.

**1.8.5 Cultural Resources.**

The CT contains scattered World War II relics dating back to 1942 when a 5,000 foot military airstrip and support facilities were constructed on CT. War related improvements included an airstrip, taxiways, and revetments for aircraft use and various structures for housing and administrative functions including quarters, a kitchen and mess hall, latrines, and guard posts. These facilities were constructed from sod and locally available materials due to a shortage of building supplies and now appear as shallow pits and earth mounds covered with vegetation and overgrown concrete foundations. Most of these cultural sites and relics lie off the north end of the existing Campbell Airstrip.

The installation of the FWS at either proposed site requires a minimal amount of surface disturbance and is a reversible.

**1.8.6 Environmental Justice**

Executive Order 12898, dated February 11, 1994, requires federal agencies to identify and address any disproportionately high and adverse human health or environmental effects their proposed actions might have on minority or low-income communities.

Campbell Tract is an administrative and recreation site maintained by the BLM. It is located on the southeast side of Anchorage and borders middle class neighborhoods.

**1.8.7 Farm Lands (Prime or Unique)**

There are no farmlands in the vicinity of CT. The closest farmlands are located across Knik Arm on Point McKenzie and in the Matanuska-Susitna Valley approximately 45 miles to the north.

**1.8.8 Fisheries/Anadromous Streams**

While Campbell Creek traverses CT, neither proposed site for installation of the FWS is within sufficient proximity to the creek to impact fisheries.



**1.8.9 Floodplains**

While Campbell Creek traverses CT, neither proposed site for installation of the FWS is within the floodplain of Campbell Creek.

**1.8.10 Hazardous Materials and Solid Wastes**

There are no known solid waste sites located within or adjacent to either of the proposed FWS installation locations. The FWS operates on a single sealed rechargeable battery. Used/replaced batteries will be recycled under provision of the Resource Conservation and Recovery Act (40 CFR 261).

**1.8.11 Hydrology and Water Rights**

Both proposed sites for installation of the FWS are well drained and neither is in proximity to Campbell Creek. The small footprint of the installation, its open design and the minor surface disturbance associated with installation of the FWS will result in no alteration of the surface water discharge characteristics of the proposed sites.

**1.8.12 Iditarod Trail**

The ceremonial start of the Iditarod Sled Dog Race occasionally terminates at CT. Neither site proposed for installation of the FWS is within the vicinity of the trails or operation sites associated with this event.

**1.8.13 Minerals**

CT is closed to mineral entry of any kind.

**1.8.14 Native American Religious Concerns**

The Bureau of Land Management is unaware of the existence of any site on CT that is identified by a Native tribe as sacred within the meaning of Executive Order 13007 or 42 USC §1996.

**1.8.16 Recreation**

Both proposed sites for installation of the FWS are off the trail system on CT. Trail use is the primary recreational use of CT by the public.

**1.8.17 Sensitive Species**

There are no known sensitive species on CT.

**1.8.18 Socioeconomic**

The FWS installation and maintenance will be performed by personnel from the AFD. The project is of such a small scale that no appreciable socioeconomic impact is anticipated.

#### **1.8.19 Soils**

There will be six holes dug for installation of four-inch fence posts and numerous holes dug to accommodate the transplantation of trees. Excavated soils will be spread so as to naturally dissipate into the surrounding soils.

#### **1.8.20 Subsistence ANILCA Section 810**

The CT lands are Federal Public Land as defined in the Alaska National Interest Lands Conservation Act (ANILCA), Section 102 and fall under the authority of the Federal Subsistence Board and the Subsistence Regulations for the Harvest of Fish and Wildlife on Federal Public Lands in Alaska.

The CT lies within the MOA unit of Game Management Unit 14C and is closed to the taking of wildlife under both State, hunting and trapping, and Federal Subsistence Regulations.

CT has no documented consistent use of fish or game by rural Alaskans and no knowledge of such use has become available since the inception of the Federal Subsistence Program.

#### **1.8.21 Surface Protection**

There will be six holes dug for installation of four-inch fence posts. The small footprint of the installation, its open design and minor ground disturbance will result in no alteration of the surface water discharge characteristics of the proposed sites. There will be numerous holes dug to accommodate the transplantation of trees. Excavated soils will be spread so as to naturally dissipate into the surrounding soils.

#### **1.8.22 Threatened and Endangered (T&E) Species**

There are no known Federal T&E animal or plant species found at the CT.

#### **1.8.23 Wetlands/Riparian Zones**

The MOA published its wetlands plan in 1996. The plan designates and provides data on wetlands within the MOA. Lands along Campbell Creek and in the general area are designated Class A and are considered to have the highest resource value among MOA wetlands. This is based on their hydrologic, habitat and social functions, and their importance to the health of the stream systems which they feed.

Neither proposed site for installation of the FWS is within sufficient proximity to wetlands or riparian zones to have an impact.

#### **1.8.24 Wildlife**

While wildlife are in residence on the CT, the small footprint of the FWS and its enclosure coupled with the proposed site locations will result in negligible if any impact on wildlife. The proposed sites are in developed areas of the 730 acre CT.

#### **1.8.25 Wild and Scenic Rivers**

There are no Wild and Scenic Rivers designated on or adjacent to CT.

#### **1.8.26 Wilderness**

There are no areas on CT designated as wilderness.

**Note:** See attached Clearance Sheets for the following:

- Cultural Resources - National Historic Preservation Act 1966 as amended, Pub. L. No. 102-575 (1992).
- Subsistence - Alaska National Interest Lands Conservation Act of 1980, Pub. L. No. 96-487 (1980).
- Threatened or Endangered Species of Concern - Endangered Species Act of 1973, Pub. L. 100-478 (1988).

## **2.0 PROPOSED ACTION AND ALTERNATIVES**

The Council of Environmental Quality (CEQ) regulations for implementing NEPA requires federal agencies to explore and objectively evaluate all reasonable alternatives to the Preferred Alternative, and to briefly discuss the rationale for eliminating any alternative not considered in detail. This section describes the No Action Alternative, the Preferred Alternative, and the alternatives considered but eliminated from further analysis.

### **2.1 No Action Alternative**

Under the No Action Alternative, BLM-AFO would not authorize AFD's proposal to install a FWS on CT. The Anchorage Fire Department may need to find an alternate site for this component of its Fire Weather Station System. BLM-AFO would continue its present management practices for its land and resources.

### **2.2 Preferred Alternative: Installation of a Fire Weather Station at Campbell Creek Science Center Meadow.**

Under this alternative, the BLM-AFO would issue a right-of-way grant for a FWS to the AFD. AFD would install, operate and maintain the station on CT.

### **2.3 Secondary Alternative: Installation of a Fire Weather Station at CT Airstrip**

Under this alternative, the BLM-AFO would issue a right-of-way grant for a FWS to the AFD. AFD would install, operate and maintain the station on CT.

## 2.4 Discussion

The preferred site is located in a meadow adjacent to the Campbell Creek Science Center (CCSC) Road (Figure 1). The alternative to the Meadow site is along the Campbell airstrip next to the windsock (Figure 1).

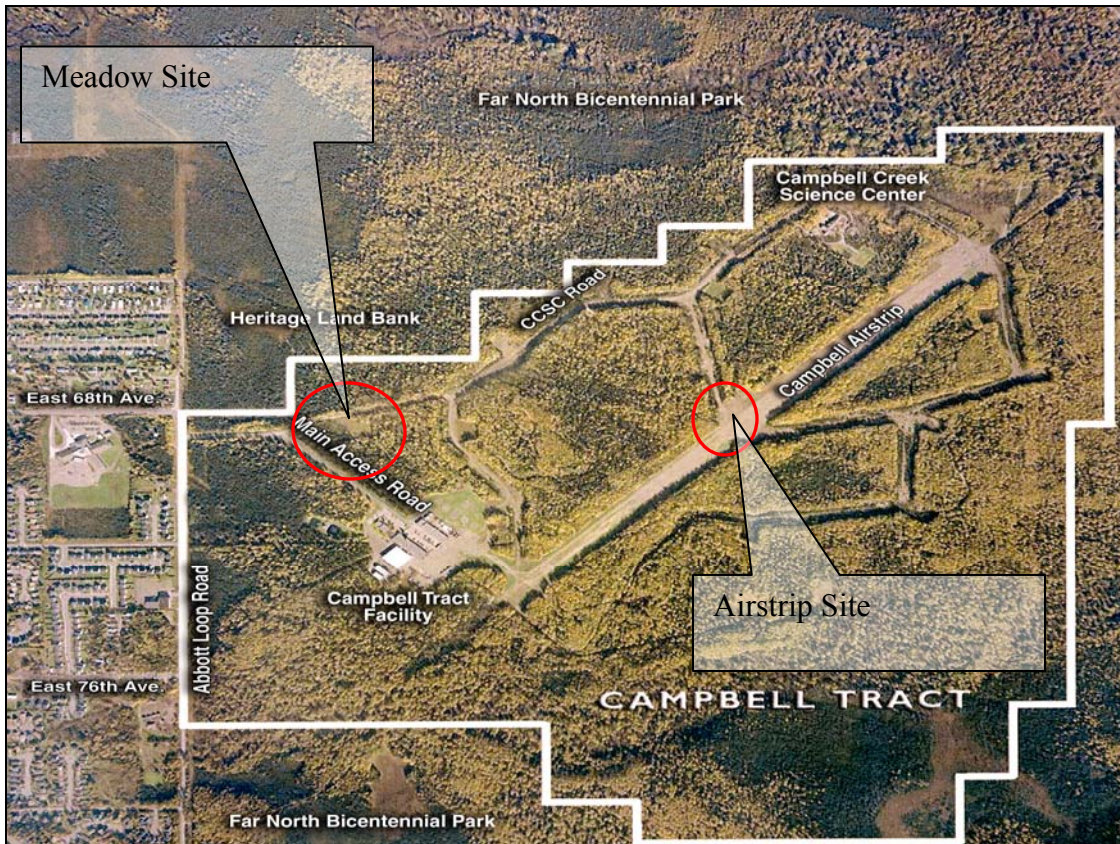


Figure 1

The footprint of the station will be approximately 12 feet by 12 feet. AFD will install a protective fence around the unit to discourage vandalism and wildlife damage. The fence will encompass a total area of 256 feet squared (or, 16 feet by 16 feet). Installation of the FWS at the Meadow site will include the transplantation of trees to screen the FWS from the public view.



**Rabbit Creek Location**

To the left is an example of the fence and the FWS. The fence is made of a wooden framework with galvanized metal mesh fencing. The fence is secured to 4 x 4 posts, driven 4 feet into the ground. The height of the fence is approximately 6 feet. The gate will be locked and a set of keys will be issued to BLM.

To the right is an example of how the FWS is secured to the ground. It is secured by driving 4 foot rebar stakes into the ground through openings on base plates which are attached to leg extensions.



## 2.4 COMPARISON OF ALTERNATIVES

**Table 2-4 Comparison of Alternatives**

<b>Elements of Concern</b>	<b>No Action Alternative</b>	<b>Installation of a FWS at Meadow</b>	<b>Installation of a FWS at Airstrip</b>
Forestry	Continued risk of wildfire. AFD may seek sites off of CT.	Enhanced forestry management regardless of site.	Enhanced forestry management regardless of site.
Human Health and Safety	Continued risk of wildfire. AFD may seek sites off of CT.	Enhanced human and community safety capability regardless of site.	Enhanced human and community safety capability regardless of site.
Invasive, Non-Native Plants	No increased risk of invasion	Slight risk of noxious weed infestation from human intrusion and ground disturbance.	Slight risk of noxious weed infestation from human intrusion and ground disturbance.
Vegetation	No change	Temporary impact to grasses. Minor impacts to surrounding woodland configuration due to the planting of additional trees to screen the FWS	Impact to trees and airstrip tree line from tree removal. Little risk to ground cover as the area is graveled.
Visual Resources	No change	Moderate changes will occur with FWS. Transplanted trees will mitigate.	Minor impact, FWS will blend in with other airstrip equipment

## 2.5 Mitigation for Preferred Alternative: (Meadow Installation)

### 2.5.1 Forestry

None required.

### 2.5.2 Human Health and Safety

None required.

### 2.5.3 Invasive, Non-Native Plants

Clearing and soil disturbance will be minimized to limit opportunities for invasive, non-native species to become established. Mud, dirt, and plant material will be removed from project equipment, footwear and clothing prior to entering CT and the project area.

Reclamation will begin with installation of the FWS and only native plants and seeds certified free of invasive, non-native species will be used. Following installation of the FWS, disturbed areas will be monitored for invasive, non-native species, which will be eradicated by hand or mechanical means.

#### 2.5.4 Vegetation

The project site will be reseeded with grass mixtures approved by BLM. If possible, native area grasses/sod from the FWS site would be salvaged and reused.

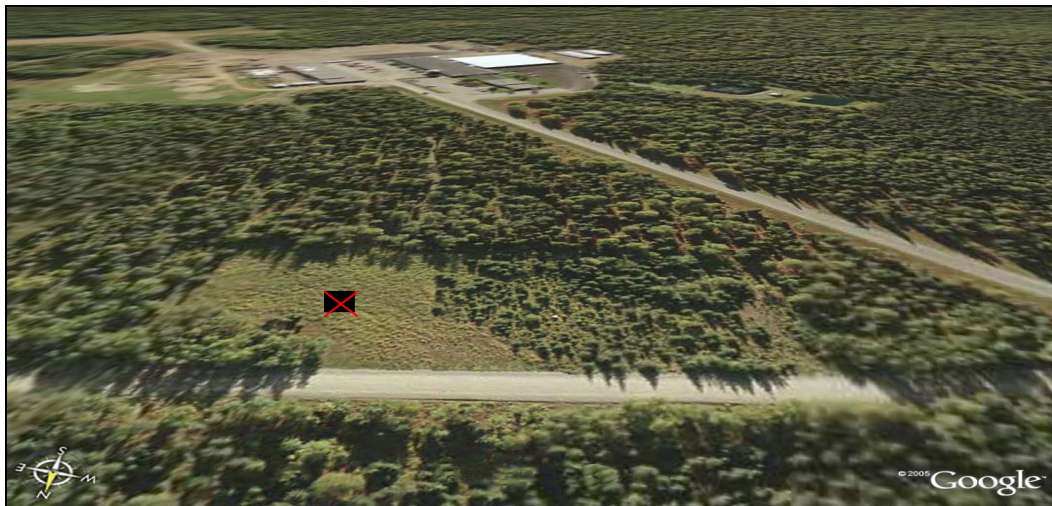
The Anchorage Fire Department will manage the vegetation at the FWS site. They will keep the site clear of over grown grass and weeds while preserving and blending the site in with the natural surroundings.

#### 2.5.5 Visual Resources

In order to keep the project area visually acceptable, the AFD will work with BLM's Recreation Planner using BLM's Visual Resource Management (VRM) techniques.

Medium to small spruce saplings will be transplanted from areas of CT that need thinning. The saplings will be placed in strategic locations along the Campbell Creek Science Center Road and on the road side of the FWS.

Renditions of the Meadow as it looks currently and what the meadow might look like with transplanted trees can be seen in the following images.



**Before**



**After**

The arrangement of trees should screen the FWS from the on-looker while driving by the station. For the person (s) walking the road, the trees may not completely hide the FWS, but they will mask it enough to make it unobtrusive. AFD will also paint the components and the fence using BLM VRM techniques. Camouflaging and blending the FWS with the surrounding environment will be completed under the guidance of BLM's Outdoor Recreation Specialist.

**Close-up Rendition (Summer)**





### **Rendition – Winter**



#### **2.6 Mitigation for the Airstrip Installation:**

With the exception of screening and camouflaging, the same mitigation measures should be followed for the airstrip as for Meadow site.

#### **2.7 Alternatives Considered, but Eliminated from Further Consideration**

AFD considered several locations within the FNBP. Those sites were rejected due to the following reasons:

- Major roadways and facilities would interfere with the weather patterns monitored by the weather station.
- Many of the open areas that would lend themselves to installation of the FWS showed evidence of heavy public uses introducing the possibility of vandalism.

BLM, AFD and Alaska Fire Service also considered using an existing Alaska Meteor Burst Communication site located on BLM Campbell Tract. It was determined that the FWS would not work on or near the Alaska Meteor Burst Communication site due to the specific communication requirements AFD needs for their particular unit.

#### **3.0 AFFECTED ENVIRONMENT**

This section describes the existing environmental conditions of the area that would affect or be affected by the Proposed Action and alternatives.

### **3.1 Forestry**

The Cook Inlet Taiga ecoregion surrounds the upper reaches of Cook Inlet in south central Alaska, and is surrounded by the mountains. Its relatively mild climate, level to rolling topography, and coastal position have contributed to the wide variety of vegetation communities found in the ecoregion. The most widespread are coniferous, broadleaf, and mixed forests, dominated in differing combinations by black spruce (*Picea mariana*), white spruce (*P. glauca*), Sitka spruce (*P. sitchensis*), quaking aspen (*Populus tremuloides*), balsam poplar (*P. balsamifera*), black cottonwood (*P. trichocarpa*) and paper birch (*Betula papyrifera*) (Gallant et al. 1995). Other important communities include low scrub, tall scrub, low scrub bog, mesic graminoid, graminoid herbaceous, and wet forb herbaceous communities.

Wildfire occurrence is moderate to high (especially in dry years), and fires range in area from 1 ha to 22.7 km<sup>2</sup>, averaging 1.6 km<sup>2</sup> (Gallant et al. 1995). Spruce bark beetle is also a common disturbance in the forests of this ecoregion. A current infestation has reached all parts of the ecoregion with up to 80 percent of the mature spruce in many stands killed. The spruce bark beetle is naturally occurring and may be the most important cause of stand renewal in the ecoregion.

There is a band of forest between the Chugach Mountains and the city of Anchorage that has suffered considerable beetle kill along with the accumulation of other fuels. Campbell Tract is part of that band.

### **3.2 Human Health and Safety**

In the event of wildfire, the MOA is serviced by the AFD and the Alaska Fire Service.

### **3.3 Invasive, Non-Native Plants**

CT has a total of 136 infestations, with 20 Alaska BLM listed invasive plants. An additional 11 non-native plant species can be found as well. Weed infestations occupy an estimated 165 acres of CT. The most commonly encountered invasive plants can be found along the Meadow road which consists of white clover (*Trifolium repens*), alsike clover (*Trifolium hybridum*), narrow leaf hawkbeard (*Crepis tectorum*), white sweetclover (*Melilotus Alba*), and timothy (*Phleum pratense*). These species are also present along the airstrip, other roadsides, most trails, and in a few cases in woodland habitats.<sup>1</sup>

### **3.4 Vegetation**

The native vegetation on CT is a result of the maritime subarctic climate, soil types and previous disturbance. Plant communities that are typical of south central Alaska and the subarctic environment are found on the CT. The vegetation mosaic is the result of human activities, consisting primarily of military use during the 1940's and 1950's that disturbed

---

<sup>1</sup> Campbell Tract Weed Inventory – Invasive Non-Native Plant Survey - 2006

existing native plant communities. Abandoned, disturbed areas are gradually following a successional pattern back to climax forest conditions.

Most of the area around the existing administrative complex and airstrip is developed or disturbed and to a lesser degree around the preferred AFD site. In these upland areas, the dominate vegetation type is spruce birch forest. This consists of white spruce and paper birch as the dominate species with some aspen and black spruce. A tall understory of willow and alder are present.

Labrador tea, low bush cranberry, dwarf dogwood and bluejoint grass are present in the low understory. A wide variety of forbs, mosses and lichens are also present.

A high percentage of the mature white spruce trees on CT have been killed by spruce bark beetles. Many trees greater than eight inches in diameter will eventually die as a result of beetle attacks. As these trees fall, less susceptible younger spruce and birch will tend to replace the spruce. Mixed spruce/hardwood stands will tend to become dominated by birch or other hardwoods.

### **3.5 Visual Resources**

Scenic quality is best described as the overall impression retained after traveling through or being within the CT area. The visual resources can be divided into two categories of scenic quality.

The area surrounding the administrative compound/airstrip is Class III scenic quality and the lands in and around the area selected for the FWS is Class II. The management objective of the Meadow is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low.

The area selected by AFD near the airstrip is managed under a Class III objective; to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate.

## **4.0 ENVIRONMENTAL CONSEQUENCES**

This section addresses the nature of impacts to the elements of the human environment anticipated to be affected by the proposed action and its alternatives.

### **4.1 Definitions**

#### **4.1.1 Duration of Impact**

*Temporary* – Impact would occur only during the installation, upgrade or maintenance of the project. During the time period between these activities, conditions would return to pre-activity conditions.

**Short-Term** – The impact would extend beyond the time of installation, upgrade or maintenance activities, but would not last more than two years.

**Long-Term** – The impact is expected to last more than two years, and may continue beyond the lifetime of the project.

#### **4.1.2 Extent of Impact**

**Localized** – Impacts are anticipated to be appreciable at the project site or its immediate surroundings but would not extend beyond the installation site or CT.

**Regional** – Impacts are anticipated to be appreciable on CT and would extend well beyond the immediate vicinity of CT.

**National** – Impacts are anticipated to be appreciable at a national level, extending well beyond the Municipality Of Anchorage.

#### **4.1.3 Intensity of Impact**

**Negligible** – Minimal or no impacts are anticipated; any change would not be noticeable or measurable. Where natural resource integrity is a concern, it is preserved.

**Minor** – Some impacts are anticipated, but are barely perceptible and not substantial. Where natural resource integrity is a concern, it is preserved.

**Moderate** – Noticeable change would alter present conditions. Where natural resource integrity is a concern, it is altered but the resource is conserved.

**Major** – Substantial impacts would occur, they are easily defined, highly noticeable and measurably alter present conditions. Where natural resource integrity is a concern, it may be altered beyond conservation measures such as sustained yield.

**4.1.4 Cumulative Impact** - Cumulative impacts were assessed by combining the potential environmental impacts of the alternatives with the impacts of current, previous, and reasonably foreseeable future projects on CT. Known past, present and reasonably foreseeable future projects and actions within CT boundary can be seen on the following map:

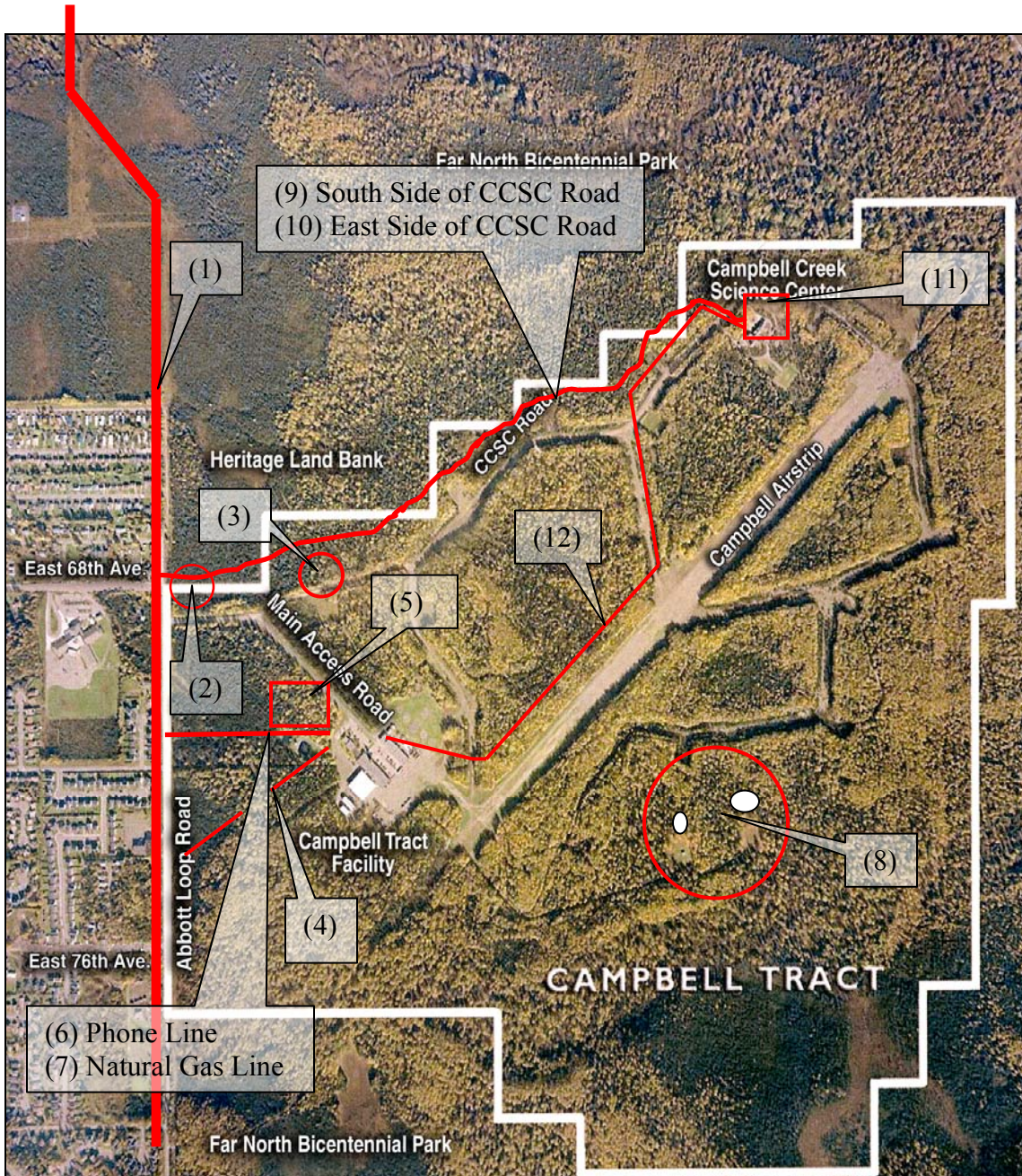


Figure 2

**Legend:**

- |                                    |                                     |
|------------------------------------|-------------------------------------|
| (1) Bragaw Street Extension        | (7) Natural Gas Line, AA-077727     |
| (2) Future Water Vault – AA086851  | (8) Radio Com Site, AA-077728       |
| (3) AFD, Fire Weather Station      | (9) Buried Electric Line, AA-077730 |
| (4) Electric Power line, AA-077724 | (10) Natural Gas Line, AA-077731    |
| (5) Water & Sewage, AA-077725      | (11) CCSC Water & Sewage, AA-077732 |
| (6) Telephone, AA-077726           | (12) Telephone, AA-077733           |

## **4.2 Impact analysis**

### **4.2.1 No Action alternative:**

Under the No Action Alternative, the AFD would not be granted a ROW to install a FWS on CT.

#### **4.2.1.1 Forestry**

Denial of the ROW may reduce the AFD's ability to effectively monitor the condition of the forest and reduce its ability to manage the forest through proscribed burns. The AFD could rectify the situation by siting the FWS on MOA lands. Therefore, the impact may be temporary and pose a minor inconvenience at the local level.

#### **4.2.1.2 Human Safety**

Denial of the ROW may increase the risk of wildfire. The increased risk would extend beyond CT to the Anchorage Community. The AFD could rectify the situation by siting the FWS on MOA lands. Therefore, the impact may be temporary and pose a minor inconvenience at the local level.

#### **4.2.1.3 Invasive, Non-Native Plants**

The risk of introducing Invasive, Non-Native Plant species would not increase as a consequence of introducing the proposed action.

#### **4.2.1.4 Vegetation**

Vegetation in and around the Meadow or Airstrip installation site would not be disturbed by the proposed action.

#### **4.2.1.5 Visual Resources**

The visual quality of the Meadow or Airstrip installation site would be unaffected by the proposed action.

### **4.2.2 Preferred Alternative (Meadow Installation):**

Under this alternative, the BLM-AFO would issue a right-of-way grant for a FWS to be installed, operated and maintained on CT.

The Meadow was disturbed by the United States Army Air Corps during World War II. Campbell Tract was used for ammunition bunkers, aircraft staging areas, aircrafts parking, maintenance, taxiways, anti-aircraft gun emplacements and an airstrip.

#### **4.2.2.1 Forestry**

Granting a ROW to the AFD may increase the AFD's ability to monitor the condition of the forest and increase its ability to manage the forest through prescribed burns. The increased ability to monitor forest conditions and perhaps engage in forestry management

would be local in nature and it may pose a moderate but positive change in human activity for some time.

#### **4.2.2.2 Human Health and Safety**

Granting a ROW to the AFD may decrease the risk of wildfire to the Anchorage Community and to CT. The increased ability to monitor forest conditions and perhaps engage in forestry management would be local in nature and it may pose a moderate but positive change in human activity for some time.

#### **4.2.2.3 Invasive, Non-Native Plants**

The installation of the FWS on CT may pose a minor risk of introducing Invasive, Non-Native Plants to the area. However, the mitigation measure of monitoring the site and removing offensive plants should eliminate the risk altogether. Removing the offensive plants before they germinate should limit the risk to one growing season and to the immediate vicinity of the installation site.

#### **4.2.2.4 Vegetation**

The FWS project would cause a slight temporary disturbance during installation of the FWS. Approximately six and one half square feet of grasses will be removed to accommodate the installation of the FWS. The loss would be long term but minor and limited to the installation site only.

#### **4.2.2.5 Visual Resources**

Installation of the FWS in the meadow will result in a moderate visual disturbance; however, the visual disturbance will be screened from the public with the introduction of screening.

#### **4.2.3 Installation of a Fire Weather Station on CT Airstrip**

Under this alternative, the BLM-AFO would issue a right-of-way grant for a FWS to be installed, operated and maintained on CT land.

The CT Airstrip has been impacted in the past due to the area being disturbed by the Army Air Corps. during World War II. The grounds were used for aircraft staging areas, aircrafts parking, maintenance, taxiways, anti-aircraft gun emplacements and an airstrip that served a variety of large to small war planes.

Currently, the airstrip has the characteristics of any small to medium Alaskan bush airstrip.

#### **4.2.3.1 Forestry**

Granting a ROW to the AFD may increase the AFD's ability to monitor the condition of the forest and increase its ability to manage the forest through prescribed burns. The increased ability to monitor forest conditions and perhaps engage in forestry management

would be local in nature and it may pose a moderate but positive change in human activity for some time.

#### **4.2.3.2 Human Health and Safety**

Granting a ROW to the AFD may increase the AFD's ability to monitor the condition of the forest and increase its ability to manage the forest through prescribed burns. The increased ability to monitor forest conditions and perhaps engage in forestry management would be local in nature and it may pose a moderate but positive change in human activity for some time.

#### **4.2.3.3 Invasive, Non-Native Plants**

In the past, and currently, the CT Airstrip location has had disturbances caused by vehicle and aircraft use during the spring, summer and fall months. Currently, the airstrip has been identified as having a high infestation of invasive plants.<sup>2</sup>

As with the meadow installation site, an airstrip site installation may pose a minor risk of introducing additional Invasive, Non-Native Plants to the area. However, the mitigation measure of monitoring the site and removing offensive plants should eliminate the risk altogether. Removing the offensive plants before they germinate should limit the risk to one growing season and to the immediate vicinity of the installation site.

#### **4.2.3.4 Vegetation**

A few trees in the immediate area would have to be either trimmed or cut down to allow the FWS' instruments to function properly. The elimination of more trees would add to the ever decreasing canopy in the Anchorage bowl and it would be long term.

#### **4.2.3.5 Visual Resources**

Although the addition of the FWS to the airstrip site might cause the equipment to blend in with rest of the equipment and treatments about the airstrip, the addition would add to the cumulative affect. As the equipment is designed to remain in place for some time the affect would be long term although localized.

### **5.0 CONCLUSION**

The Fire Weather Station coupled with the other stations being placed in the area would provide the AFD with an additional tool to manage fire in the Anchorage Bowl and may provide the State with a tool that aids in the management of the forested lands surrounding the community.

However, the installation of the FWS on CT adds to the ever expanding development that is occurring along the CT's western boundary.

---

2 Campbell Tract Weed Inventory – Invasive Non-Native Plant Survey - 2006



## **6.0 CONSULTATION AND COORDINATION**

### **6.1 Persons and Agencies Consulted**

Sharon Alden, Alaska Fire Service  
Sue Barkwood, Wildfire Mitigation Office, Alaska Fire Department Station 7-1  
John W. See, Regional Fire Mgt. Officer, Alaska Division of Forestry  
Linnea Keating, USFS Program Manager  
Herb Arnold, BLM Remote Sensing Fire Weather Support, Unit Manager  
Rachael L. Soverns, BLM Anchorage Field Office, Cadastral Electronics  
Doug Dickinson, BLM Anchorage Field Office, Communication  
Steve Politsh, BLM Anchorage State Office, Communication  
Richard Brown, Micro Specialties, Inc.  
Kehli Hohmann, BLM Campbell Creek Science Center, Science Instructor

### **6.2 List of Preparers:**

Jefferson D. Johnson, BLM Anchorage Field Office, Realty Specialist  
Jeff Denton, BLM Anchorage Field Office, Subsistence Specialist  
Bruce Seppi, BLM Anchorage Field Office, Wildlife Biologist  
Donna Redding, BLM Anchorage Field Office, Archaeologist  
Doug Ballou, BLM Anchorage Field Office, Recreation Planner