Draft Environmental Assessment for

Campbell Tract Recreation Area Management Plan

DOI-BLM-AK-A010-2021-0016-EA

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1 Introduction

1.0 Background

Starting in the 1940's, Campbell Tract (CT) and Far North Bicentennial Park (FNBP) were used as a military installation during the Second World War. Many of the roads and trails in use today were used during those U.S. wartime efforts. Many land transfers have occurred between the U.S. Army, Bureau of Land Management (BLM), State of Alaska, and the Municipality of Anchorage (MOA) since the 1960's to establish and protect CT and FNBP for public use for many generations to come.

The CT now consists of 730-acres of BLM administered public land located in the heart of Anchorage, Alaska. The area is set aside as an administrative site, which the BLM maintains for Federal interagency office facilities, maintenance shop, warehouse, aviation resources (multi-pad heliport and 5,000-foot gravel airstrip), communication sites, and the Campbell Creek Science Center (CCSC).

Secondary to the administrative functions, CT is also designated as a Special Recreation Management Area (SRMA), providing year-round outdoor recreation opportunities in a natural setting for nearly 500,000 urban visitors annually. The SRMA currently hosts a 12-mile non-motorized trail system that supports recreation activities including walking, running, mountain and fat tire biking, orienteering, horseback riding, Nordic skiing, sled dog mushing, ski-joring, nature study and wildlife viewing. Portions of the CT trail system includes a 3.8-mile Campbell Tract Loop, which is part of the National Recreation Trail system.

CT trails connect to a broader network of city trails on the adjacent FNBP maintained by the MOA Parks and Recreation Department. By mutual agreement the BLM and FNBP staff closely coordinate and manage these areas to provide a seamless recreation visitor experience and have worked towards this goal for over 30 years.

The CT also hosts the CCSC, a BLM environmental education facility that provides educational programs and curriculum to approximately 40,000 local and virtual school children and adults annually.

Numerous public volunteer events and permitted races and activities occur on the CT every year providing additional recreation opportunities to the public and continuing the BLM's commitment to offering a wide variety of recreation opportunities to a diverse audience.

This environmental assessment (EA) documents the environmental analysis the BLM conducted to estimate the potential site-specific effects on the natural and human environments that may result from implementation of the proposed. The EA will provide the BLM's Authorized Officer (Anchorage Field Office Manager) with current information to aid in the decision-making process.

This EA complies with the Council on Environmental Quality's (CEQ) Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (NEPA; 40 Code of Federal Regulations [CFR] Parts 1500-1508) and the Department of the Interior's 3 regulations on Implementation of the National Environmental Policy Act of 1969 (43 CFR part 46).

Chapter 1 of this EA describes the action proposed by the BLM, why the BLM is proposing this action, and the location of the Proposed Action. It also identifies the factors the decision maker will use for choosing the alternative that will best meet the purpose of and need for this project.

1.1 Summary of Proposed Project

The BLM Anchorage Field Office (AFO) has prepared a Draft Recreation Area Management Plan (BLM 2022) for the CT SRMA. The RAMP would provide direction for the overall management of recreation for the CT SRMA into the future. (Map of CT, Appendix E: Map #1)

1.2 Purpose and Need

The purpose of this action is to draft and finalize a RAMP as a stepdown plan from the Land Use Plan (LUP) *Management Plan for Public Use and Resource Management on the Bureau of Land Management Campbell Tract Facility* (CT 1988 Management Plan). The RAMP and associated proposed actions in Section 2.2 would guide the daily and long-term management of the 730-acre CT SRMA in the AFO.

The need to develop a RAMP for the CT SRMA is to provide a long-term vision and commitment for improved recreational day-use activities within the area that addresses contemporary issues. The existing CT 1988 Management Plan did not anticipate many of the recreation activities that now occur, more than 30 years after the CT 1988 Management Plan was approved. The proposed action is necessitated by an increase in recreation use trends; public demand; changes in both the numbers and types of users, and; changing recreation use patterns and technology. The action aims to develop a long-term comprehensive plan to guide and improve recreation visitor opportunities at CT into the future resulting in an amenity near the urban center of Anchorage that is highly valued.

This CT SRMA RAMP also aims to decrease future conflicts, minimize resource impacts, and provide a safer visitor experience. The current configuration of the trail network, maintenance activities, public parking, trailhead access, and systemic information and education is insufficient for the volume of vehicular and trail recreational use at peak daily and seasonal demand. The RAMP is necessary to protect and improve visitor safety, the resource conditions of the CT administrative site, and the overall recreation experience, while providing an accessible public resource. Also included are actions to address trail and fire and fuels safety, necessitated by changes to the type and amounts of vegetation now present on areas of CT.

1.3 Decision to be Made

The decision to be made is whether to implement the proposed actions in the CT RAMP as outlined in Section 2.2 as proposed, as proposed with modifications, or neither. in This decision would help meet the goals and objectives of the LUP, while providing high quality safe recreational experiences within an urban and heavily used SRMA.

In making its decision, the BLM must determine and consider the environmental impact of all on-the-ground activities described in Section 2.2 on the BLM-administered public land. In its decision to approve the proposed action, the BLM must also consider existing Resource Management Plans (RMPs) and other BLM plans in terms of how the authorizations and actions conform to existing BLM land use plans. This EA analyzes the Proposed Action and the No Action Alternative. This EA analyzes site-specific impacts associated with the implementation of each alternative, identifies project design features and stipulations to potentially reduce or eliminate those impacts, and provides the BLM with detailed analyses with which to inform its decision. The deciding Authorized Officer (AO) for the proposed project is the Anchorage Field Office Manager.

Based on the information provided in this EA, the AO will decide whether to select the Proposed Action; select the Proposed Action with modifications; or deny the Proposed Action.

1.4 RAMP Planning Process

The BLM followed a six-step planning process in developing the CT RAMP and associated EA. The results of these steps have been incorporated throughout the proposed RAMP and EA and are outlined below.

- Step 1. Identify Planning Issues—Recreation issues and concerns were identified through external informal scoping and internal Interdisciplinary Team (IDT) meetings.
- Step 2. Formulate Alternatives—A range of reasonable management potential alternatives was developed that address issues identified in Step 1. Potential alternatives were eliminated that did not resolve resource conflicts.
- Step 3. Analyze Effects of Alternatives—The environmental effects of each alternative were estimated and analyzed.
- Step 4. Identify Preferred Alternative—The alternative that best resolved the planning issues was identified as the Preferred Alternative. The Preferred Alternative is defined and addressed in this document as the Proposed Action.
- Step 5. Develop RAMP—A Draft RAMP/EA is issued and made available to the public for a review period of 30 calendar days. After comments to the draft document have been received and analyzed, the Draft RAMP/EA is revised and modified, as necessary, and a Final RAMP and Final EA is published. If there are no significant impacts from the Preferred Alternative, a Finding of No Significant Impact (FONSI) is prepared, and a decision record (DR) is signed to approve the Final RAMP and Final EA.
- Step 6. Implement the RAMP and Monitor the Results—Upon approval of the DR, management actions outlined in the Final RAMP are effective immediately and require no additional formal planning or NEPA analysis. Site specific resource surveys would be completed prior to implementation of ground disturbing activities. Implementation activities will follow the Project Design Features and Best Management Practices set forth in Appendix H. Following the implementation, the effectiveness of the management actions toward meeting goals and objectives would be tracked.

1.5 Land Use Plan Conformance

Management actions identified in this plan would be designed to conform to the following documents, statutes, and planning documents, which provide the legal framework for management of BLM lands within the Anchorage District:

- Ring of Fire Record of Decision and Approved Management Plan, March 2008: Retention of the existing Campbell Tract SRMA. Management of this administrative site would continue to be guided by *A Management Plan for Public Use and Resource Management on the Bureau of Land Management Campbell Tract Facility* (BLM 1988), and any future amendments to this plan.
- *A Management Plan for Public Use and Resource Management on the Bureau of Land Management Campbell Tract Facility* (BLM 1988).

The area within which any future proposed action on CT would take place is with the larger Ring of Fire Record of Decision and Approved Resource Management Plan (BLM, 2008). This plan directs management of the Campbell Tract Facility (CTF) SRMA to continue to be guided by a more targeted Land Use Plan, A Management Plan for Public Use and Resource Management at the Bureau of Land Management Campbell Tract Facility (CT 1988 Management Plan) (BLM, 2008 p. l0). The CT RAMP is an implementation level plan that stems from the targeted CT 1988 Management Plan. As such, all future proposed actions on CT must conform to the CT 1988 Management Plan as well as this CT RAMP and EA. All future management actions must reference and conform to the goals, objectives, desired recreation setting and characteristics (RSC's) in the CT RAMP and EA.

1.6 Relationship to Statutes, Regulations, Other NEPA Documents

This EA has been prepared in conformance with BLM regulations for implementing the management decision set forth in the CT 1988 Management Plan and ROD and in accordance with NEPA and its implementing regulations. This EA has been prepared in accordance with the BLM NEPA Handbook (H-1790-1) (BLM 2008).

- **Existing Closure Orders in effect on the BLM CT SRMA** – all actions listed below are prohibited on CT and have remained unchanged as part of this process (pursuant to 43 CFR 2920.1, 5462.2, 8341.1, 8351.2, 8360.0-7, 8364.1, and 8365.1-2):
    1. Use of motor vehicles except on designated roads
    2. Use of firearms, air guns, paint guns, archery equipment, traps, or snares
    3. Dogs and domesticated animals not on a leash
    4. Building fires
    5. Camping
    6. Consumption of alcohol
    7. Use or possession of fireworks
    8. Building structures or shelters

9. Constructing trails
10. Use of dog mushing wheeled carts or vehicles during the snow free season
11. Public or private entry onto the Campbell Tract airstrip, heliport, aircraft ramp, and taxiway between the airstrip and the aircraft ramp areas
12. Collection of any amount of flowers, berries, nuts, seeds, cones, leaves, or other forest products (43 CFR 8365.1-5)
13. Molesting or impeding spawning or the natural movement of fish contrary to lawful methods and means of sport fishing is prohibited (ADF&G (a) 2022)

- **Migratory Bird Treaty Act of 1918**–implements the convention for the protection of migratory birds between the US and Great Britain (acting on behalf of Canada). The statute makes it unlawful without a waiver to pursue, hunt, take, capture, kill, or sell birds listed therein as migratory birds. The law also prohibits the destruction of active migratory bird nests.
- **Bald and Golden Eagle Protection Act of 1940** – Prohibits anyone, without a permit issued by the Secretary of the Interior, from "taking" bald or golden eagles, including their parts, nest (active or not), or eggs.
- **National Historic Preservation Act (NHPA) 1966, as amended–**Provides for the management, protection and enhancement of historic buildings and places, as well as consultation procedures with the local State Historic Preservation Office.
- **National Environmental Policy Act (NEPA) of 1969**–Requires the preparation of EAs or Environmental Impact Statements (EISs) on federal actions. These documents describe the environmental effects of these actions and determine whether the actions have a significant effect on the human environment.
- **Federal Land Policy and Management Act (FLPMA) 1976** –Defines BLM's organization and provides the basic policy guidance for BLM's management of public lands.
- **Archaeological Resources Protection Act (ARPA) 1979**–Protects archeological resources and sites on federally administered lands. Imposes criminal and civil penalties for removing archaeological items from federal lands without a permit.
- **Federal Noxious Weed Act (Public Law 93-629-November 28, 1990)-**provides for the management of undesirable plants on federal lands.
- **Land Use Plan Amendment for Wildfire and Fuels Management for Alaska (BLM 2005)-**Identifies land use and resource objectives, wildland fire suppression options, and fuels(vegetation) management activities that achieve those objectives.
- **BLM Finding of No Significant Impact and Proposed Land Use Plan Amendment EA (AK-313-04-EA-001) (July 6, 2004)** for Wildland Fire and Fuels Management for Alaska.

- **Department of the Interior (DOI) Secretary Order 3366 – Increasing Recreational Opportunities on Lands and Waters Managed by the U.S. Department of the Interior**
- **Secretarial Order 3376 on Electronic Bicycles (e-Bikes)** –On August 29, 2019, the Secretary of the Interior issued Secretarial Order (S.O. 3376), which states, "This Order is intended to increase recreational opportunities for all Americans, especially those with physical limitations, and to encourage the enjoyment of lands and waters managed by the Department of the Interior (Department). This Orders simplifies and unifies regulation of electric bicycles (e-bikes) on Federal lands managed by the Department and decreases regulatory burden." The S.O. defines the associated policy as "Consistent with governing laws and regulations:

  a) For the purpose of the Order, "e-bikes" shall mean "low-speed electric bicycle" as defined by 15 U.S.C.§ 2085 and falling within one of the following classifications:

     (i) "Class 1 electric bicycle" shall mean an electric bicycle equipped with a motor that provides assistance only when the rider is pedaling, and that ceases to provide assistance when the bicycle reaches the speed of 20 miles per hour;

     (ii) "Class 2 electric bicycle" shall mean an electric bicycle equipped with a motor that may be used exclusively to propel the bicycle, and that is not capable of providing assistance when the bicycle reaches the speed of 20 miles per hour; and,

     (iii)"Class 3 electric bicycle" shall mean an electric bicycle equipped with a motor that provides assistance only when the rider is pedaling, and that ceases to provide assistance when the bicycle reaches the speed of 28 miles per hour.

  b) E-Bikes shall be allowed where other types of bicycles are allowed; and

  c) E-bikes shall not be allowed where other types of bicycles are prohibited. The proposed implementation action in Section 2.2.3 is consistent with SO 3376 as it does not consider E-bikes differently than non-E-bikes.

BLMs E-bike final policy:

Federal Register: Increasing Recreational Opportunities Through the Use of Electric Bikes

43 CFR 8340.0-5 to define E-bikes, which are limited to Class 1, 2, and 3 E-bikes.

The rule provides that authorized officers may authorize, through subsequent land-use planning or implementation-level decisions, the use of Class 1, 2, and 3 E-bikes on non-motorized roads and trails.

The rule provides managers the ability to exclude E-bikes that meet certain criteria from the definition of off-road vehicle (otherwise known as an off-highway vehicle (OHV)) at 43 CFR 8340.0-5(a).

The rule, however, does not result in any immediate on-the-ground changes or site-specific allowances for E-bike usage on BLM-administered public lands. In other words, the rule does not, by itself, open any non-motorized trails to E-bike use. Before any on-the-ground changes can occur, an authorized officer must issue a land use planning or

implementation -level decision that complies with NEPA and other applicable legal requirements.

1.7 Issues Identified for Analysis

Preliminary issues are frequently identified during the development of the proposed action through internal and external scoping (Sections 4.2.1 and 4.2.4, respectively). This section includes those issues that were carried forward for further analysis and incorporated into the proposed action. The issues are organized under their larger respective resource category. The issues that were identified but eliminated from further analysis are provided in Section 1.8.

1.7.1 Recreation and Visitor Services

- Should the recreational trail network be expanded or modified, and how could this expansion affect the recreational opportunities or experiences of all visitors?
- Should the BLM analyze and authorize routine trail system maintenance activities on Campbell Tract?
- How would the use of E-bikes on Campbell Tract affect overall visitor experiences?
- What are the impacts of the existing unmanaged winter only single-track trails?
- What are the recreational impacts from applying the Fuels Management proposed treatments and how could this removal affect the recreational opportunities or experiences of visitors?
- What are the recreational impacts of expanding and/or improving the Campbell Airstrip Trailhead (CAT) Parking Area?
- What commercial activities, competitive activities, and private events should BLM permit on Campbell Tract?

1.7.2 Forest Health and Fire/Fuels Management

- What are the impacts from applying the proposed fuels treatments to CT to reduce hazards as well as manage wildfire fuel loading into the future?

1.7.3 Wildlife

- What are the potential impacts to wildlife, and potential wildlife and/or human conflicts that may arise from increased trail mileage, ground disturbing activities associated with the proposed action, and authorizing new forms of recreational transport?

1.7.4 Historical, Cultural, & Paleontological Resources

- What are the potential impacts to cultural resources as a result of the proposed action? The proposed action is located within the boundaries of ANC-1385, which has been determined eligible for inclusion in the National Register of Historic Places.

1.7.5 Vegetation

- What impacts would the proposed action have on vegetation and BLM sensitive plant species? What is the potential for introduction and spread of non-native invasive species as a result of these activities?

1.7.6 Hydrology

- What potential impacts could the proposed action have on water quality and quantity. What is the potential for additional sediment from proposed activities to be delivered to surface water?

1.7.7 Fisheries

- What is the potential impact of the proposed action on fisheries and aquatic species? What is the potential for introduction of aquatic invasive species as a result of these actions?

1.7.8 Visitor Safety & Security

- What impacts could the proposed action have on visitor safety and BLM security?

1.8 Issues Identified but Eliminated from Further Analysis

This section lists the issues that were identified but not carried forward for further analysis and the rationale why.

1.8.1 Visual Resources

The lands in the project area have already been designated a Visual Resource Management (VRM) Class IV and therefore, visual resources do not need to be addressed as part of this effort. The 2008 BLM Ring of Fire Resource Management Plan designated CT lands as VRM Class IV, which provides for management activities that require major modifications to the existing character of the landscape. Short term impacts to visual resources are related to construction activities. Long term impacts are related to the potential for increased trail and parking lot use by recreational users. These impacts are consistent with a VRM Class IV rating and therefore do not require further detailed analysis.

1.8.2 Air Quality (AQ)

Any AQ effects resulting from the proposed action will be temporary in nature and not expected to exceed the local air quality standards. Additionally, no prescribed burning is proposed with the fuel's treatment actions and therefore AQ requires no further detailed analysis.

1.8.3 Administrative (Lands, Aviation, Warehouse, Maintenance)

The 730-acre CT was withdrawn from settlement, sale, location, or entry under the general land laws, including the United States mining laws, and from selection under Section 6 of the Alaska Statehood Act for the protection of the CT as an administrative site by Public Land Order (PLO) 7905 which extends the duration of the withdrawal created by PLO 6127 as extended by PLO 7471. PLO 7905 took effect February 11, 2022 and expires on February 10, 2042. No other land use designations exist beyond the SRMA.

There are several rights-of-way (ROW) grants and leases on CT. The ROW grants and leases support telephone and internet lines, powerlines, a water system, sewage lines, gas lines, a wind profiler, a communication site, roads, and paved and unpaved parking lots. Most of these grants and leases are in place to help recreational users of the CTF, or are buried lines, or located outside of the CTF recreational areas. Grant and lease holders are informed that grants and leases do not authorize proprietary uses, grants or leases that could be dangerous to CTF recreational users are fenced and clearly marked. Since none of the grants or leases have issues identified for analysis no further detailed analysis is required.

1.8.4 *Areas of Critical Environmental Concern (ACEC)*

There are no ACECs present on CT so no further detailed analysis is required.

1.8.5 Environmental Justice

Fees charged in association with recreation access can exclude disadvantaged and low-income populations from recreation opportunities. There are no fees currently required for access to the recreation opportunities publicly available at the BLM Campbell Tract and no new fees are associated with the proposed actions in this plan. No environmental justice population, as defined by Executive Order 12898 (U.S. Environmental Protection Agency 1994), would be disproportionately affected by the proposed actions therefore, no further detailed analysis is required. Any public who chooses to recreate at the BLM CT has equal access to the project area.

1.8.6 Subsistence

CT lies within the Anchorage Management Area and is closed to subsistence hunting and fishing under federal subsistence regulations. The collection of any number of flowers, berries, nuts, seeds, cones, leaves, or other forest products for subsistence, or any other reason, is prohibited at

the CT Special Recreation Management Area (SRMA) (43 CFR 8365.1-5). For both these reasons, no further detailed Subsistence analysis is required.

1.8.7 Threatened and Endangered Species

No Threatened, Endangered, or Candidate Plant or Animal Species are present in or near the project area, so no further detailed analysis is required.

1.8.8 Campbell Creek Science Center (CCSC)

The specific uses, programs, signage, and the campus of the CCSC will not be analyzed as part of this proposed action. The general location and area of use will be identified and described as part of the current physical setting and landscape of CT (Appendix E: Map #2). For the CT RAMP, the CCSC is recognized as a facility within the Environmental Education Facility Zone (EEFZ), to include the classrooms and buildings, roads and parking lots, sidewalks and trails, and outdoor activity sites and activity fields associated with the operation of the CCSC, a world-class environmental education facility. The EEFZ is more commonly referred to as the CCSC and encompasses all support and activity areas that provide outdoor and environmental education programs to the public

Within the EEFZ and the AZ (Appendix E: Map #10), recreational and public use is discouraged, as these zones are designated for official BLM and Interagency core administrative use and is not managed for safe recreational use. The AZ includes the developed or disturbed land associated with the access roads, employee parking areas, administrative buildings, and aviation resources. The BLM's use and occupation of the AZ has been used to carry out the BLM's core land management mission since the 1960's. The administrative use by the BLM is necessary for all BLM Alaska Offices, as it serves many locations and land management functions for BLM across Alaska. All of CT is available for administrative use at any time, however the day-to-day administrative uses of the tract are centered within the AZ. The public does sometimes travel through these zones via several travel methods, to access the other recreation zones of CT. Visitors passing through these areas often prefer these wide-open spacious areas due to wildlife concerns and field of view, such as the recreation trail adjacent to the airstrip corridor and the CCSC Road.

Further background and details about the CCSC are included in the RAMP document, Chapters 1, 5, and 4 regarding Information & Education, and the collaboration with AFO for educational support to develop future interpretive and educational displays around CT (BLM 2022).

The majority of CCSC visitor use is directly related to CCSC-sponsored educational school and public programs and activities, not directly related to wider CT recreation use. The CCSC facility and the CCSC parking area were closed to in-person visitor use for most of 2020 and all of 2021 due to the Pandemic. Based on 2021 BLM visitation counter data, approximately half of all users entered CT at either the SJ Trailhead (23%) or CAT Trailhead (25%), usually arriving by vehicle and parking in either trailhead parking lot. The other half of CT recreation users tend to enter on trail connections from adjacent neighborhoods and the greater FNBP trail network. The gate to access the CCSC road and parking lot is closed to public traffic from 6pm to 6am Monday through Friday and during the weekends. The proposed CCSC parking area, therefore, has

limited potential to affect recreation visitation numbers as an additional new form of CT recreational access during the peak times of use. BLM has not incorporated a trail counter to assess the number of trail users coming from the CCSC parking lot, so recreation use data from CCSC is unknown. Over the past 15 years, BLM recreation staff have however observed and recognized a regular pattern of CCSC parking lot use for recreational trail access during normal business hours when the road gate is open, often at lunchtime. The number of these recreational users is limited.

A future CCSC project under recent development is a proposal to develop a new parking area and increase spaces that would be designed to provide safer access for school busses dropping off and/or picking up children and pedestrians walking from their vehicle to the CCSC. The alternatives are still under development. The current construction and redesign proposal seeks safer footpaths and parking, an increase in parking spaces, a designed turnaround and waiting area for school busses and improved lighting and winter snow removal design. Due to the increase in parking spaces, the proposal may have the potential to minimally increase recreation visitation from the CCSC during normal business hours when the road gate is open.

1.8.9 Wildland Fire (Fuels and New Fuel Breaks)

A component of the Fuel Management Treatments that was considered was the creation of additional shaded fuel breaks on CT to address the fuel loading along key administrative sites including roadways and ingress and/or egress access areas. The BLM wants to plan for a more comprehensive look at fuels management around CT with neighboring MOA and CSP partners. This portion of the proposed action was removed from further detailed analysis due to the scope of the project and to best incorporate it into a more wholistic future fire and fuels management plan that considers input and actions of the MOA and CSP to comprehensively manage wildfire risk and fuel-loading in the Wildland Urban Interface of CT. The hazard tree and existing fuel break treatments proposed in this effort address safety impacts to facilities and trail users while addressing some of the existing fuel load but also demonstrate why future fuels treatments should be considered.

2 Proposed Actions and Alternatives

This chapter provides an overview of the goals and objectives of the CT 1988 Management Plan, how those were incorporated into the objectives of the RAMP, and then provides an overview of two alternatives: the no action and the proposed action. The proposed action represents seven Implementation Actions or Future Implementation Actions from the RAMP that are detailed under Section 2.2 Alternative 2 – The Proposed Action.

2.1.1 Goals and Objectives from CT 1988 Management Plan

The primary objective, as outlined in the CT 1988 Management Plan, for management of the CTF is to continue to facilitate the use as a BLM administrative site. Administrative facilities are also available, to a limited extent, for the use of cooperating federal and state agencies. BLM

anticipates continued use of the administrative site, including the airstrip and communications sites, into the foreseeable future.

The secondary objectives for management of the CTF per the guiding CT 1988 Management Plan are to:

- Provide for public uses that are compatible with the operation of the administrative facility. On portions of the CTF, away from the central administrative facility and the airstrip, public recreation use is considered compatible within the general framework of the Bicentennial Park plan. Specific objectives are the following (BLM 1988):
    1. Allow dispersed, non-motorized recreation uses compatible with administrative purposes.
    2. Enhance non-motorized trail recreation opportunities.
    3. Provide recreation experiences with a minimum of restriction. Attempt to minimize conflicts among outdoor recreators through CT/FNBP User Group cooperation prior to establishing restrictions.
    4. Maintain the natural setting of portions of the tract where these conditions now exist.
    5. Expand environmental education opportunities, including development of appropriate facilities.

The 1988 Plan Management Decision (BLM 1988, Part IV, page 39) contained 20 actions that were divided into three categories: Recreation Management; Environmental Education; Other Resources. These actions are in conformance with the CT 1988 Management Plan objectives, and many of the CT 1988 Management Plan actions have been completed including the construction of the Campbell Creek Science Center environmental education facility. All future proposed actions would be evaluated for their conformance with the CT 1988 Management Plan objectives and the more modern CT RAMP objectives listed in section 2.1.2.

2.1.2 CT RAMP Objectives

As a stepdown plan to the original CT 1988 Management Plan, the CT RAMP was developed to incorporate the original CT 1988 Management Plan objectives (Section 2.1.1), as well as incorporate more modern objectives to address the more recent issues experienced at CT.

In keeping in line with the original primary objective for management of the CTF to maintain and facilitate its use as a Federal interagency administrative site, related objectives include providing office facilities, warehouse services, equipment storage, pre-positioned emergency supplies, and open-ground training sites for other federal interagency purposes. CTF supports office facilities as well as equipment storage for the U.S. Fish and Wildlife Service, US Forest Service, and National Park Service. In addition, the Federal Emergency Management Agency stages pre-loaded trucks with emergency supplies and the warehouse stores a mobile hospital unit. Administrative facilities are also available to a limited extent for the use of cooperating state and local agencies for law enforcement, fire, search & rescue, and resource management

training and field exercises. BLM anticipates continued use of the administrative site, including the airstrip and communications sites, into the foreseeable future.

Outside of the administrative site functions however, the CT receives ever-increasing recreation visits that numbered nearly 500,000 in 2021. Significant financial and capital improvement investments have been made to continue to maintain and expand recreational opportunities in this unique urban setting.

The objectives in the CT RAMP are intended to provide overall management direction and guidance for CT recreation program management for current and future managers to reference for appropriate decision making as recreational use and technologies continue to change and grow. The RAMP is intended to guide land managers to document and adapt to the current recreational uses and predict future changes and growth. The implementation objectives and proposed actions in the RAMP document align with the CT 1988 Management Plan goals and objectives and provide greater detail related to the current and future anticipated environmental settings and recreational growth and use. Through this planning process the BLM seeks to address changes occurring in the natural environment (e.g., insect and disease – killed trees) that are creating resource impacts and visitor safety concerns; issues related to increased recreational use, diversity, and types of recreation use, and the evolving challenge of managing the many types of recreational resources on CT.

2.1.2.1 Development of Facilities – Implementation Objective

The objective is to provide a recreation area and trail system that can accommodate and support the current and future anticipated upward trend of recreational use at CT. CT RAMP Sections 2.2.1 & 2.2.2 outline proposals to meet this objective.

2.1.2.2 Access – Implementation Objective

The objective is to provide for current and new recreational opportunities in this unique urban setting. CT RAMP Sections 2.3.1 & 2.3.2 outline proposals to meet this objective.

2.1.2.3 Visitor Health & Safety – Implementation Objective

The objective is to maintain safe trails, trailheads, road corridors, and utilize fuels management treatments to minimize user risk to provide for safe and enjoyable recreational opportunities. CT RAMP Sections 2.4.1 & 2.4.2 outline proposals to meet this objective.

2.1.2.4 Recreation Permits – Implementation Objective

The objective is to authorize commercial and competitive SRP activities and events on Campbell Tract at the discretion of the BLM, and in accordance with BLM H-2930-1 Recreation Permit and Fee Administration Handbook. CT RAMP Section 3.0.1 outlines a proposal to meet this objective.

2.1 Alternative 1 – No Action Alternative

Alternative one is the No Action alternative and under it, the BLM would not approve the proposed action and would not implement the proposed activities. The associated surface disturbance would not occur. Management would continue managing CT with the direction provided from the CT 1988 Management Plan as described in Section 2.1.1. Much of the existing CT recreational use and management has been working well for most users over the years. Current management that was set forth in the CT 1988 Management Plan will be carried forward.

The goal of describing the No Action alternative is to allow the reader to clearly see the difference between taking no action and implementing the proposed action. It provides a basis for comparison to the Proposed Action detailed in Section 2.2 and consists of current management summarized in the table in Section 2.4 and is analyzed in detail in Chapter 3.

2.2 Alternative 2 – Proposed Action

Alternative two is the Proposed Action and is the Preferred Alternative. It includes all seven management actions contained in this Section 2.2 to address the resource issues identified in Section 1.7. Specific project design details that would apply to all seven management actions are listed in Appendix H: Project Design Features (PDF's) and Best Management Practices (BMP's).

2.2.1 Future Implementation Action – Year-Round Single-Track Trail

The proposal is to design and build a narrow year-round multi-use single-track trail from the Birch Knob Trail and Four Corners area that travels south between the Viewpoint Trail and P-38 to the Viewpoint and Coyote trail intersection area (Appendix E, Map #3). During winter this trail would serve as a trail loop opportunity to the existing unmanaged winter only single-track trails "Stranger" and "Rambone".

The trail would be approximately 1 mile in length and approximately 2 feet to 3 feet wide. Approximately ½ acre would be disturbed for the construction of this trail. The trail surface would remain a natural surface, as much as possible. Some gravel may be needed for maintenance or to hardened portions of the trail over time. The exact footprint of this future project is unknown and existing snow coverage are both prohibiting a full resource analysis currently. The intent for including the action in this document without the final design footprint, is to: 1) allow consideration of cumulative resource effects of this future foreseeable action related to other developments included in this plan, and 2) to provide as much resource analysis as possible under this document so that upon completion of the final design, a separate future NEPA document would tier to the analysis already completed in this document. This future NEPA document would allow additional resource analysis to occur during the snow-free months of 2022 and aim for a signed NEPA decision October 2022.

Table 1: Year-Round Single Track Trail Alternatives

RAMP Implementation Action	Alternative 1 No Action	Alternative 2 Proposed Action (Preferred Alternative)
Year-Round Single-Track Trail	• Continued congestion and conflict potential between different user groups and authorized activities along Viewpoint Trail.	• New trail provides alternative routing around Viewpoint Trail reducing user congestion and conflicts during times of winter high use and scheduled races and events. • New trail expands existing trail network and enhances recreation opportunities on CT. • Approximately 1 mile long and 2 – 3 feet wide. • Approximately ½ acre.

2.2.2 Implementation Action – Trail System Maintenance

The proposal is to conduct routine maintenance (as staff and funding allow) on existing trails and roads within existing disturbance such as; vegetation trimming to maintain the trail corridor width and sightlines; install drainage features such as French drains, culverts, water bars, drain dips, etc. (as necessary and practicable) to resolve trail drainage issues; resurfacing trails to improve trail tread durability; and trail grooming during winter months utilizing snowmachine groomers or other similar equipment. Additionally, the proposal is to expand routine maintenance to include trails that have not previously been groomed (Salmon Run, Birch Meadow, Speedway) and groom the existing unmanaged winter only single-track trails. Stand-up single-track groomers and narrow tracked snow machines like the SnowDog have proven to be an effective tool to maintain trails in other locations of winter recreation, specifically in locations where winter fat tire biking has dramatically increased. Single Track Advocates (STA), a local bicycle user group, recently received a donated Snow Dog groomer to use on STA maintained trails. STA has contacted BLM and MOA about assisting with future grooming activities.

Trail maintenance and associated trail work (such as limbing or lopping tree limbs) would be completed by staff, partnerships groups, volunteers, or contractors utilizing hand tools, chainsaws, or other gas-powered handheld equipment. Larger equipment such as dump trucks, skid steers, Bobcats and other large earth moving equipment (dump trucks, front end loaders, graders, logging truck and trailer, etc.) may be used for larger project work (fuels management projects, trail projects, etc.) that could not be completed by hand tools.

These maintenance actions are not new to CT trail system, as this work has been conducted using similar equipment for many years. The trail surface material used for trail projects would remain a porous gravel surface. The finer gravel material compacts and bonds better than larger

diameter gravel (3/4in minus), creating a more durable and longer lasting trail surface. Using larger diameter gravel does not compact or bond with the trail tread surface which can create a buildup of loose gravel along the sides and corners of trails. This unanticipated buildup can create a safety hazard of loose gravel and detract from the quality of the CT trail system.

No pavement or asphalt is proposed or planned for the greater trail system. A hard surface material such as pavement would be used in future trail projects related to parking accessibility and accommodating for Americans with Disabilities Act (ADA) or handicap access from Campbell Airstrip Trailhead to the larger Campbell Creek bridge (See Section 2.2.6).

BLM would conduct routine maintenance around administrative facilities, trailheads, along roads and trails within existing disturbance areas, as needed, such as mowing of grasses or other herbaceous vegetation along pavement edges; cutting hazard trees which pose a hazard to the area; regular pavement maintenance such as graveling, sweeping, striping, or resurfacing; and snow removal. General traffic, road, and informational type signs are also included under these general maintenance activities. Other routine maintenance includes painting of buildings, moving or maintaining security gates, and posting of temporary signs.

Table 2: Trail System Maintenance Alternatives

RAMP Implementation Action	**Alternative 1** **No Action**	**Alternative 2** **Proposed Action (Preferred Alternative)**
Trail System Maintenance	• Determine NEPA adequacy or use Categorical Exclusion for routine or annual projects and maintenance requiring no new ground disturbance. • Continue winter grooming of existing hardened trail plan. • Continue coordinated grooming with MOA, ASDRA, and NSAA partners.	• Allow for routine or annual projects and maintenance requiring no new ground disturbance. • Expand winter grooming to narrow multi-use trails previously not groomed including, but not limited to Birch Meadow Trail and Salmon Run Trail, as well as existing unmanaged winter only single-track trails. • Expand partnerships with other entities for cooperative grooming services

2.2.3 Implementation Action – E-Bike Types and Authorized Use Areas

The proposal is to adopt and authorize the Class 1 pedal assist (functional pedals are required) E-bike non-motorized classification from Department of Interior Secretarial Order 3376 and authorize their use on the identified multi-use trails on CT (Appendix E: Maps #4 & #5). By adopting these E-bike classifications as authorized recreation activities, BLM would provide a

seamless E-bike recreation experience with adjacent FNBP trails as E-bikes are currently authorized on MOA trails. Appendix D provides further E-bike classification descriptions.

Class 2 non-pedal assist E-bikes and/or full throttle E-bike use would continue to not be authorized on CT because they have the option to be full throttle without pedal assist. Full throttle E-bikes are not authorized on CT. Additionally, the non-pedal assist, or full throttle E-bikes, do not conform with the desired user benefit outcome sought for the non-motorized trail designation and desired experience identified in Section 1.3.2 in the trail recreation zone. Similarly, motorized skateboards (such as one wheel) are not authorized as they are fully motorized.

Class 3 pedal assist E-bikes are very similar to Class 1 but can travel at higher speeds, up to 28 m.p.h. The MOA does not authorize this faster type of E-bikes on the surrounding trail system. For consistent management, and visitor safety related to the higher speed of travel, the BLM would not authorize Class 3 E-bikes on CT.

Since the S.O. 3376 (EA Sec. 1.5), in August of 2019, many of the E-bike class definitions do not match the current technological changes being seen in the ever-evolving industry of E-bikes and battery-operated recreation technology. After market alterations can change a bike's speed and performance, making a Class 1 E-bike much faster than normally authorized. As E-bike technology changes and evolves, BLM would need to consider the impacts to the Recreation Setting Characteristics (RSCs) before adjusting or changing class definitions.

BLM's E-bike final policy:

Federal Register: Increasing Recreational Opportunities Through the Use of Electric Bikes

43 CFR 8340.0-5 to define E-bikes, which are limited to Class 1, 2, and 3 E-bikes.

The rule provides that authorized officers may authorize, through subsequent land-use planning or implementation-level decisions, the use of Class 1, 2, and 3 E-bikes on non-motorized roads and trails.

The rule provides managers the ability to exclude E-bikes that meet certain criteria from the definition of off-road vehicle (otherwise known as an off-highway vehicle (OHV)) at 43 CFR 8340.0-5(a).

The rule, however, does not result in any immediate on-the-ground changes or site-specific allowances for E-bike usage on BLM-administered public lands. In other words, the rule does not, by itself, open any non-motorized trails to E-bike use. Before any on-the-ground changes can occur, an authorized officer must issue a land use planning or implementation -level decision that complies with NEPA and other applicable legal requirements.

Table 3: E-Bike Types and Authorized Use Areas Alternatives

RAMP Implementation Action	Alternative 1 No Action	Alternative 2 Proposed Action (Preferred Alternative)
E-bikes – Authorize Class 1 E-bikes on all system trails (excluding designated winter sled dog trails during winter use)	• E-bikes are not authorized on CT. • E-bikes are classified as a motorized vehicle • Law Enforcement could ticket E-bike users	• Class 1 E-bikes would be authorized on all system trails (excluding designated winter sled dog trails during winter use) • Class 1 E-bike use provides additional recreation opportunities to new users

2.2.4 Implementation Action - Winter Only Single-Track Trails

The proposal is to authorize and manage seasonal development of the existing unmanaged winter only single-track trails in designated corridors to allow for a unique winter recreational setting, character, and opportunity you cannot find on the wider year-round trails on CT. The winter trail corridor prescription would outline how to manage and maintain the desired RSCs. BLM and MOA coordinate on the seamless management of the conjoining trail network. BLM would not implement any future development and grooming actions on shared trails until the MOA has time to go through their public processes and come to a determination on how they would manage the existing unmanaged winter only single-track trails throughout MOA managed park lands.

The prescription for the authorization and management of the existing unmanaged winter only single-track trails, to include the locally referred to trails named "Stranger Trail", "Slow Way Trail", "Shaggy Trail", Scooby Trail", "Rambone Trail", "Scary Tree Trail" and MOA's Blue Dot Trail (also summer trail) (Appendix E: Maps #1 & #5), would be over snow travel only when the trail surface is frozen with sufficient snow (approximately 6 inches of snow) to protect vegetation. No surface trail maintenance, ground disturbance, or tread improvements would be authorized for the winter only single-track trails. At times, the trail may require limited corridor maintenance such as removal of fallen trees as well as minor brushing, lopping, and trimming limbs and fallen trees that are dead and down. A 30-foot-wide corridor would be identified as a general trail corridor for the narrow (approximately 2 feet wide) winter-only single-track trails to be located within. Due to fallen trees or changes in ground conditions (e.g., ponding of water in low lying areas) during the summer, some of the winter trails may meander or slightly change from one winter season to another. The intention of this trail management prescription is to allow for some flexibility year to year but limit this type and amount of use in any given area.

The current existing unmanaged winter only single-track trails cross one designated winter sled dog trail on CT near the dog mushing bridge. Conflicts between fat bike users and dog mushers have also existed on the MOA's "Blue Dot" trail that lies north of Smoke Jumper parking area. Currently the "Blue Dot" trail crosses a single designated winter sled dog trail seven times. BLM has recommended to the MOA the relocation of "Blue Dot" trail to the west of its current location. Another location of conflict, on MOA managed lands, is the Muldoon Curve area on

the NE corner of FNBP. Both the sled dog (ASDRA) and biker (STA) user groups have worked together for better signing and re-routed existing unmanaged winter only single-track trails around conflict areas and spread the message on social media platforms. BLM has worked collaboratively with the Alaskan Sled Dog & Racing Association (ASDRA) and MOA to increase constant seasonal winter sign placement to help educate users about potential conflicts.

Public comments have been made at CT/FNBP User Group meetings as well as public scoping comments submitted that claim all these existing unmanaged winter only single-track trails will eventually turn into summer trails. BLM has been and will continue to monitor these winter trails for summer use. No summer use or resource impacts have been noted on CT from winter activity since 2018. Many of these winter trails travel through frozen bogs or marshes that cannot be traversed during summer. Planning and layout of winter routes through these bogs or swamps can be used as a management control to avoid summer use of the winter only single-track trails.

Table 4: Winter Only Single-Track Trails Alternatives

RAMP Implementation Action	**Alternative 1** **No Action**	**Alternative 2** **Proposed Action (Preferred Alternative)**
Winter Only Single-Track Trails	• Existing unmanaged winter only single-track trails remain unmanaged • BLM has limited control over trail placement, maintenance, and impacts to other CT resources	• Authorize and manage seasonal development of the existing unmanaged winter only single-track trails. • Classified into BLM trail system. (BLM 2022) • BLM collaborates with winter fat bike community in trail design and, placement, enhancing user satisfaction, user safety, and conflict reduction

2.2.5 Implementation Action – Fuels Management Treatments

The CT is identified as a Wildland Urban Interface (WUI) in past fire and fuels related projects with its location bordering neighborhoods and homes in Anchorage (BLM 2001). There are two proposed actions under the Fuels Management Treatments in the CT RAMP project area: to remove hazard trees (Section 2.2.5.1) and to perform maintenance on an existing fuel break (2.2.5.2). The hazard tree treatment would reduce the current fuel load and help maintain the safety of administrative sites and recreational trails at CT for user safety. The fuel break treatment would maintain the existing 33-acre fuel break so that it remains effective for fire suppression personnel in slowing or stopping the spread of wildfire to and from CT and surrounding neighborhood subdivisions.

Both actions would utilize on the ground site-specific discretion of the Project Manager (PM) or Authorized Officer (AO) to authorize removal of fewer trees and less than the full extent of the buffer being treated based on conditions, observations during implementation, and staff and/or funding availability. The AO or PM would use the hazard tree criteria as described in Section 2.2.5.1 to determine which hazard trees to fell or retain to accomplish the overall objective and desired outcome while maintaining flexibility to authorize a smaller project footprint.

The project manager would be required to consult with the AFO Resources & Fuels Staff when developing any future fuels project treatment plan to address tree marking and removal for retention of the RSC's as well as to avoid or minimize negative surface impacts, such as degrading habitat, disturbing soils, and vegetation. The only trees that would be marked would be the ones slated for removal and would be marked in a manner that would not be highly visible to the recreating public. That could be a paint mark close to the ground on the bole of the tree or on the back side of the tree facing away from trails and roads, and parking areas.

In addition to all applicable Best Management Practices (BMPs) from Appendix H, both proposed actions would include the following three Project Design Features for managing slash, coarse woody debris, and disposal. All treatments would aim to avoid or minimize negative surface impacts such as degraded habitat, soil disturbance, and damage to remaining vegetation and trails.

Slash

Slash is defined as debris on the ground resulting from natural events (ex. wind, insect infestation, snow breakage, etc.) or human activities (pruning, thinning, brush cutting, etc.). It includes logs, chunks, branches, broken brush, or understory brush (NWCG 2022). Where hazard tree densities are low and horizontal fuel loading is low, tree boles and limbs may be lopped and scattered if doing so does not create an additional fuel hazard. If scattering debris, limbs would be removed from tree boles. If fuels cannot be effectively dispersed, then a combination of scatter and disposal could be used to mitigate dense fuel accumulations. Where hazard tree densities are high, tree boles and limbs generated from hazard tree treatments should be removed in their entirety.

Coarse Woody Debris

In riparian areas, Coarse Woody Debris (CWD), and shoreline vegetation is an important component of freshwater, estuarine, and marine systems. It provides shade, streambank, and shoreline stability, and allochthonous inputs. Riparian vegetation also influences groundwater conveyance and storage, and the condition and complexity of aquatic habitats (Knutson and Naef 1997; Murphy and Meehan 1991). Course woody debris at CT mostly refers to streambank and riparian vegetation that would be retained in place, if practicable, in riparian areas within 100 feet of either side of stream bank to provide for aquatic habitat and natural stream dynamics.

In terrestrial areas, - CWD is also important. Many mammals, including serval rodent species, utilize downed wood as refuge, and forage. Terrestrial CWD adds to overall habitat complexity that benefits a suite of wildlife species.

Coarse woody debris is greater than 3-inch diameter and is beneficial to the health of soil and forest ecosystems. Unless the pre-existing density of CWD is already high in riparian areas within the project area, the equivalent of one log (12 in. diameter, 20 ft. long) can be left within the 100-foot buffer. However, the limbs must be disposed of or scattered to reduce fuel loading.

Disposal of Trees and Slash

The method for disposal of felled trees, slash, and other woody surface fuels would take into consideration: concentration of material, the proximity to road or trail access, and accessibility by different equipment types. Whole trees, sections of trees, and/or limbs may be hauled, forwarded, and, in some cases, skidded from the treatment area to a central location where they can be removed off site, chipped or processed in other ways and disposed of. Material may also be chipped on-site into a chip truck or trailer and hauled offsite. The equipment used for these activities may include, but is not limited to, mini excavators, skid steers, ATVs, UTVs, snow machines, chippers, pickup trucks, chip trucks, and trailers. Where feasible, project activities would occur over frozen ground in the winter to reduce ground disturbance. Equipment must not exceed the tread width for any segment of trail or road that it would travel on.

2.2.5.1 Hazard Tree Removal

This proposed treatment would entail routine hazard tree removal within a 100-foot buffer (277 acres) along trails, roads, parking areas, and facilities (Appendix E: Map #6) to increase user safety. The treatment would reduce the hazard of falling trees, the related resource impacts of social trails created to travel around fallen trees, and hazardous fuel buildup from fallen trees. This routine action would occur on an as-needed basis into the future.

The goal of this treatment is to reduce the potential hazard of falling trees into the trails, roads, parking areas, or a facility's area of use while minimizing impacts such as increasing fuel hazards, degraded habitat, disturbance to soils and vegetation, and trail damage.

The felling and removal of hazard trees is proposed within a 100-foot buffer from either side of the centerline of trails, and 100 feet from the edges of roads, parking areas, and building facilities (Appendix E: Map #6). The hazard trees within the specified treatment areas would be felled with chainsaws or mechanized equipment. For the purposes of this plan, a hazard tree is defined as any tree that is infested, damaged, dead, or dying and if it falls naturally, has the potential to be a hazard and directly impact the following features: trails, roads, parking areas or an administrative asset.

The criteria to remove a hazard tree are:

- infested, damaged, dead, or dying and leaning such that if it were to fall naturally, it has the potential to directly impact trails, roads, parking areas or an administrative asset.

- infested, damaged, dead, or dying and with no obvious lean but a height tall enough to impact features.

The criteria to retain and not fell a tree are:

- infested, damaged, dead, or dying and leaning such that if it were to fall naturally, would not directly impact trails, roads, parking areas or an administrative asset.
- Infested, damaged, dead, or dying and not tall enough to impact trails, roads, parking areas or an administrative asset.
- A minimum of 2-5 wildlife retention trees per acre would be met by following the wildlife retention prescription to retain trees with:
    - 6" DBH or greater preferred
    - Evidence of use (nests, cavities, foraging, squirrel caches, etc.)
    - Soundness based on evidence from increment bore analysis

Trees or portions of trees that have already fallen naturally (due to wind events or to being infested, damaged, or dying) and are hung up and pose a risk to trails, roads, parking areas or a facility's area of use would also be removed for safety and disposed of.

Table 5: Fuels Management Treatments – Hazard Tree Removal Alternatives

RAMP Implementation Action	Alternative 1 No Action	Alternative 2 Proposed Action (Preferred Alternative)
Fuels Management Treatments – Hazard Tree Removal	• Risk to trail and facility users would increase due to hazard trees remaining. • No hazard tree removal treatments along trails, roads, parking areas, facilities, or ingress and/or egress routes.	• Hazard trees would be removed along 18 miles of roads, trails, parking areas, facilities, and ingress and/or egress routes up to 277 acres. Decreased fuel loading by removing hazard trees.

2.2.5.2 Maintenance of Existing Fuel Break

This proposed treatment would perform maintenance to the existing 33-acre (1.95-mile long) CT fuel break corridor beginning in Summer 2022 as well as into the future (Appendix E: Map #7). The corridor was originally designated through the Campbell Tract Fuel Break & Defensible Space Construction Environmental Assessment (AK-040-01-EA-021), August 7, 2001. The current routine proposed action would occur on an as-needed basis into the future to continue to meet the intent of the fuel break.

The goal of the maintenance is to ensure the existing, cooperative shaded fuel break that was established in 2001 by the MOA and BLM remains effective for fire suppression personnel in

slowing or stopping the spread of wildfire to CT and surrounding communities. The 1.95-mile long, 33-acre fuel break sits along the southern and eastern borders of Campbell Tract and the adjacent MOA FNBP park boundary. In the 20 years since the fuel break was established, many coniferous trees have encroached and grown into the fuel break. The proposed action would remove all coniferous species and retain only deciduous hardwood tree species. The initial treatment would occur in Summer 2022 and continue as funds and staffing allow to address current conifer encroachment and prevent future conifer establishment. The BLM and/or the MOA would conduct the fuel break maintenance activities. Removal would occur with the use of hand and power saws.

Table 6: Fuels Management Treatments – Maintenance of Existing Fuel Break Alternatives

RAMP Implementation Action	**Alternative 1** **No Action**	**Alternative 2** **Proposed Action (Preferred Alternative)**
Fuels Management Treatments – Maintenance of Existing Fuel Break	• Continue to maintain the existing BLM/MOA shaded fuel break sporadically as funding and resources allow. • Increased social trailing and resource impacts as users detour around downed trees on trails.	• The existing 1.95-mile, 33- acre BLM/MOA shaded fuel break, would be maintained to remove existing conifer encroachment and continue to prevent future establishment

2.2.6 Future Implementation Action - Campbell Airstrip Trailhead (CAT) Parking Area

The BLM has applied for funds through The Great American Outdoor Act (GAOA) for a future project to rehabilitate and expand the Campbell Airstrip Trailhead (CAT) parking area located off Campbell Airstrip Road on the northern boundary of CT. There is currently 0.6-acre gravel parking lot that, under the Proposed Action, would be expanded and paved to a total size of approximately 2.2 acres. This would account for approximately 1.6 acres of new disturbance. The development would increase safety with pavement striping including identified parking spaces (100-120 spaces) and new directional signs, new sidewalks, security lighting, security cameras, parking bollards or boulders, and gates for traffic flow or local emergencies. To improve future parking area drainage, culverts could be added or replaced, installation of drainage ditches and bio swales would be placed to best manage drainage. (Appendix E: Maps #8 & #9). As covered in the Trail System Maintenance proposed action Section 2.2.2, this CAT development would include hard trail surface pavement and/or to support an ADA compliant handicap accessible trail from Campbell Airstrip Trailhead to the larger Campbell Creek bridge.

The intent for including the proposed action in this document without the final design footprint, is to: 1) allow consideration of cumulative resource effects of this future foreseeable action related to other developments included in this plan, and; 2) to provide as much resource analysis

as possible under this document so that upon completion of the future concept design, a separate future NEPA document would tier to and consider the analysis already completed in this document while evaluating the conceptual design prior to creating a final design. This future NEPA document would allow additional resource analysis to occur.

For many decades this parking area has been jointly managed by the MOA and BLM. The MOA has provided snow and trash removal and summer grading of the parking area, as needed. BLM has maintained the signs, dog waste bags, and limited infrastructure at the trailhead, and will continue to do so into the future. The MOA is supportive of these proposed changes and continued partnership with BLM. (Appendix E: Maps #8 & #9).

Table 7: Campbell Airstrip Trailhead (CAT) Parking Area Alternatives

RAMP Implementation Action	Alternative 1 No Action	Alternative 2 Proposed Action (Preferred Alternative)
Expand and develop the CAT Parking Lot	• 20-25 unorganized, unmarked gravel parking spaces • 0.6 acres gravel parking lot footprint • No safety street lights • No security cameras • Limited directional signs • Year-round pothole and water/ice management issues require regular maintenance	• 100-120 striped paved parking spaces that reduce maintenance and make snow plowing easier • 2.2 total acres of paved parking lot footprint, an increase of 1.6 acres from porous gravel to impermeable pavement. • Safety lights (motion and timed) • Security cameras • Directional signage and gates that provide for emergency closures • Improved drainage, fewer potholes, no more grading maintenance • Modern parking lot design increases visitor capacity, enhances user experience and safe access to trails, promotes trailhead safety and security

2.2.7 Implementation Action – Recreation Permit Authorizations

The proposal is to authorize BLM to manage commercial and competitive SRP activities and events and continue to authorize these activities and events at the discretion of the BLM, in accordance with BLM SRP policy.

The BLM authorizes recreation use of the public lands through the issuance of special recreation permits (SRPs). The BLM's authority to issue permits is described in the Federal Land Policy and Management Act of 1976, the Federal Land Recreation Enhancement Act, 16 U.S.C. 6801 et seq and 43 Code of Federal Regulations (CFR) 2930. The issuance and administration of permits must adhere to the BLM policy contained in Manual 2930 Recreation Permits and Fees and Handbook H-2930-1 Recreation Permit Administration.

The CT 1988 Management Plan addresses the management program which consisted of 20 actions organized within three categories: Recreation Management, Environmental Education, and Other Resource Actions (BLM 1988, Part IV, page 39). The CT 1988 Management Plan does authorize competitive events in cooperative management with the Municipality of Anchorage (Action RM-9, page 44) and environmental education (Action EE-2, page 47). It didn't address commercial SRP events except for measuring any future proposal not covered in the management program with the management objectives in Part III to determine compatibility with the CT 1988 Management Plan. In 1988, the need to address commercial SRP use was not recognized as there were limited opportunities for commercial recreation ventures. In the Other Resource Actions section of the CT 1988 Management Plan, it allows for Rights-of-Way but excluded commercial use activities that had been proposed such as gravel extraction and timber harvest would conflict with semi-primitive recreation experiences. The CT 1988 Management Plan also anticipated continued use of the administrative site, including the airstrip and communication sites.

The proposed SRP management strategy into the future would carefully consider the increased public use of CT and weigh concern as to not displace or impact public users with an increased number of events or commercial groups that would impair the recreation setting and characteristics (BLM 2022, Draft CT RAMP, Section 1.4). The goal of this action is to continue to authorize SRPs by ensuring the proposal meets the following conditions:

1. Conforms with the CT 1988 Management Plan Management Objectives & Constraints (BLM 1988, Part III, page 31);
2. Conforms to the CT RAMP Objectives (BLM 2022, Draft CT RAMP, Section 2.1.2);
3. Conforms to the CT RAMP Recreation Setting Characteristics (BLM 2022, Draft CT RAMP, Section 1.4);

As recreation use continues to increase and the BLM and/or public users feel that the recreation setting character is threatened or there are negative impacts to recreational opportunities or facilities, BLM would follow the recreation setting characteristics description to guide SRP decisions.

Table 8: Recreation Permit Authorizations Alternatives

RAMP Implementation Action	Alternative 1 No Action	Alternative 2 Proposed Action (Preferred Alternative)
Recreation Permit Authorizations	• Continued authorization of permitted activities and events measured against the management decisions and objectives of the CT 1988 Management Plan	• Manage SRPs to not displace or degrade casual recreation uses on CT or facilities • Manage the number and span of permitted activities and events on a given day to maximize user experience and minimize potential for conflicts and resource impacts • Follow RSCs to establish on a case by case basis, the optimum group size limits for permitted activities and events to maximize user experience and minimize potential for conflicts and resource impacts

2.3 Alternatives Considered but not Analyzed in Detail

Alternatives to the Proposed Action are developed to explore different ways to accomplish the purpose and need while minimizing environmental impacts and resource conflicts, as well as meeting other objectives of the RMP and/or CT LUP. Consistent with BLM NEPA Handbook H-1790-1, the agency "need only analyze alternatives that would have a lesser effect than the proposed action" (BLM 2008, page 80).

The need for updated recreation management actions, related to the recreational growth and changes, were identified during informal and formal external scoping. The BLM reviewed comments from the public scoping period. The Proposed Actions were able to avoid impacts to resource conflicts wherever possible; projects that could not avoid known resources were dismissed from analysis in this EA (Section 1.8 Issues Identified but Eliminated from Further Analysis). No alternatives, other than the proposed action, were considered.

2.4 Summary Comparison of Alternatives

Table 9: Summary Comparison of all proposed actions Alternatives

RAMP Implementation Action	Alternative 1 No Action	Alternative 2 Proposed Action (Preferred Alternative)
Year-Round Single-Track Trail	• Continued congestion and conflict potential between different user groups and authorized activities along Viewpoint Trail.	• New trail provides alternative routing around Viewpoint Trail reducing user congestion and conflicts during winter times of high use and scheduled races and events. • New trail expands existing trail network and enhances recreation opportunities on CT. • Approximately 1 mile long and 2 – 3 feet wide. • Approximately ½ acre.
Trail System Maintenance	• Determine NEPA adequacy or use Categorical Exclusion for routine or annual projects and maintenance requiring no new ground disturbance. • Continue winter grooming of existing hardened trail plan. • Continue coordinated grooming with MOA, ASDRA, and NSAA partners.	• Allows for routine or annual projects and maintenance requiring no new ground disturbance. • Expand winter grooming to narrow multi-use trails previously not groomed including, but not limited to Birch Meadow Trail and Salmon Run Trail, as well as winter only single-track trails. • Expand partnerships with other entities for cooperative grooming services
E-bikes – Authorize Class 1 E-bikes on all system trails (excluding designated winter sled dog trails during winter use)	• E-bikes are not authorized on CT. • E-bikes are classified as a motorized vehicle • Law Enforcement could ticket E-bike users	• Class 1 E-bikes would be authorized on all system trails (excluding designated winter sled dog trails during winter use) • Class 1 E-bike use provides additional recreation opportunities to new users

RAMP Implementation Action	Alternative 1 No Action	Alternative 2 Proposed Action (Preferred Alternative)
Winter Only Single-Track Trails	• Existing unmanaged winter only single-track trails remain unmanaged • BLM has limited control over trail placement, maintenance, and impacts to other CT resources	• Authorize and manage seasonal development of the existing unmanaged winter only single-track trails • Classified into BLM trail system. (BLM 2022) • BLM collaborates with winter fat bike community in trail design and placement, enhancing user satisfaction, user safety, and conflict reduction
Fuels Management Treatments – Hazard Tree Removal	• Risk to trail and facility users will increase due to hazard trees remaining. • No hazard tree removal treatments along trails, roads, parking areas, facilities, or ingress and/or egress routes.	• Hazard trees would be removed along 18 miles of roads, trails, parking areas, facilities, and ingress and/or egress routes up to 277 acres. Decreased fuel loading by removing hazard trees.
Fuels Management Treatments – Maintenance of Existing Fuel Break	• Continue to maintain the existing BLM/MOA shaded fuel break sporadically as funding and resources allow. • Increased social trailing and resource impacts as users detour around downed trees on trails.	• The existing 1.95-mile, 33- acre BLM/MOA shaded fuel break, would be maintained to remove existing conifer encroachment and continue to prevent future establishment
Expand and develop the CAT Parking Lot	• 20-25 unorganized, unmarked gravel parking spaces • .6 acres gravel parking lot footprint • No safety street lights • No security cameras	• 100-120 striped paved parking spaces that reduce maintenance and make snow plowing easier • 2.2 total acres of paved parking lot footprint, an increase of 1.6 acres from porous gravel to impermeable pavement.

RAMP Implementation Action	Alternative 1 No Action	Alternative 2 Proposed Action (Preferred Alternative)
	• Limited directional signs • Year-round pothole and water/ice management issues require regular maintenance	• Safety lights (motion and timed) • Security cameras • Directional signage and gates that provide for emergency closures • Improved drainage, fewer potholes, no more grading maintenance • Modern parking lot design increases visitor capacity, enhances user experience and safe access to trails, promotes trailhead safety and security
Recreation Permit Authorizations	• Continued authorization of permitted activities and events measured against the management objectives within the CT 1988 Management Plan	• Manage SRPs to not displace or degrade casual recreation uses on CT or facilities • Manage the number and span of permitted activities and events on a given day to maximize user experience and minimize potential for conflicts and resource impacts • Follow RSCs to establish on a case-by-case basis, the optimum group size limits for permitted activities and events to maximize user experience and minimize potential for conflicts and resource impacts

3 Affected Environment and Environmental Consequences

3.0 General Setting of the Campbell Tract

The 730-acre CT landscape has been heavily used, altered, and manipulated since the 1940's military use. The BLM has maintained administrative use of the CT since 1965 and is an important administrative site for management of public lands in Alaska for a variety of federal, state, and local agencies.

CT serves as the administrative site for the BLM's Anchorage District Office (ADO), Anchorage Field Office (AFO), US Fish & Wildlife Service, and portions of the BLM's Alaska State Office. Other organizations such as USFS, USGS, US AID, Disaster Relief and Emergency supplies are also housed at CT. The administrative site consists of office buildings, shop buildings and warehouse complex, aviation resources (5,000 ft airstrip, airstrip taxiway and/or ramp, and helicopter landing pads), access roads, trails, parking areas, communications sites, utility easements and rights of way. (See Appendix E: Map #10). Additionally, CT hosts the CCSC, which is an onsite environmental education facility (Appendix E: Map #2).

Secondary to the administrative functions, CT is also designated as a Special Recreation Management Area (SRMA), providing year-round outdoor recreation opportunities in a natural setting for nearly 500,000 urban visitors annually. The CT recreation environment is best described in terms of two seasons and two zones; the trail and dispersed (non-trail) zones and related activities that occur in each zone during the snow and non-snow seasons. The SRMA currently hosts a 12-mile non-motorized trail system that supports recreation activities including walking, running, mountain and fat tire biking, orienteering, horseback riding, Nordic skiing, sled dog mushing, ski-joring, nature study and wildlife viewing. Portions of the CT trail system includes a 3.8-mile Campbell Tract Loop, which is part of the National Recreation Trail system.

CT trails connect to a broader network of city trails on the adjacent FNBP maintained by the MOA Parks and Recreation Department. By mutual agreement the BLM and FNBP staff closely coordinate and manage these areas to provide a seamless recreation visitor experience and have worked towards this goal for over 30 years.

CT is in the Cook Inlet Basin ecoregion, characterized by interior and coastal boreal forests. Open and closed forests of Alaska paper birch (*Betula neoalaskana*), white spruce (*Picea glauca*), black spruce (*Picea mariana*), and Balsam poplar (*Populus balsamifera*) occur in a mosaic pattern and dominate the recreational setting. The CT forest environment has experienced an increased amount of beetle killed trees and other forest fuel buildup over the years. The existing and future increase in tree mortality will continue to increase the trail, road, and administrative area staff workload needed to address to standing dead hazard trees and downed trees.

CT lands lie in the lower portion of the South Fork Campbell Creek watershed that is almost entirely unurbanized. CT lands within the Little Campbell Creek watershed are drained by the North Fork Little Campbell Creek that is tributary to Little Campbell Creek. The Little Campbell Creek watershed is mostly urbanized but CT lands make up the headwaters of the North Fork catchment and are still forested. Since drainage from, and through both, CT parcels is almost entirely unurbanized natural hydrologic functions are unimpaired.

The South Fork of Campbell Creek supports resident populations of rainbow trout, Dolly Varden, and slimy sculpin. Five species of anadromous salmon are also present in the creek. Chinook salmon are typically the first to migrate up the creek and spawn from late-June through July, Sockeye salmon migrate up the creek from mid-June to mid-August, and coho salmon from late-August through October. Pink and chum salmon maybe present but this portion of the creek is not identified as a spawning or rearing location. The creek is stocked annually with rainbow trout and coho salmon by the Alaska Department of Fish & Game. This section of creek is closed year around to all salmon fishing, open for catch-and-release only rainbow trout fishing,

and Arctic char/Dolly Varden retention and is a popular fishery during the summer months. Salmon are an important food source for bears when they are present, particularly brown bears,

Wildlife viewing is a popular recreational use of the area and provides many opportunities for researchers and the public alike to enjoy sightings of migratory birds, salmon, and numerous mammalian species. Biodiversity is higher, relative to other parcels of land in Anchorage because of the semi-primitive, natural setting.

3.1 Resource Issue 1: Recreation & Visitor Services

3.1.1 Affected Environment

The BLM Campbell Tract provides a full range of year-round trail and non-trail recreation opportunities to the urban population of Anchorage. Users routinely commute to CT from across the Municipality to take advantage of the nearby natural environment, with well-designed and hardened trails, and excellent opportunities to encounter wildlife.

With the 2010 completion of Elmore Road from Tudor to Abbott Road, CT became more visible and accessible to more of Anchorage where most previous use came from neighboring areas with trail access. Elmore Road and the new MOA Abbott Loop Community Park now provide enhanced vehicle and bike access. The already approved realignment of 68th Avenue with the main CTF entrance at BLM Road would increase Smokejumper Trailhead parking and delayed construction is now planned to occur in Summer of 2022.

Trends in recreation visitation and public demand on CT have shown a ten-fold increase between 2003 and 2022, according to BLM's Recreation Management Information System (RMIS), and all indications point to continued growth. Future trends in recreational use data show a growing trend not just in Anchorage but nationwide, specifically since the start of Covid-19. A recent recreational survey showed a 30% increase of use from 2019 to 2020 (2021 Outdoor Participation Trends Report). The use of E-bikes specifically, has grown exceptionally fast in the last few years. As battery technology continues to advance, the cost will decrease and make E-bikes increasingly available and overall use of E-bikes would increase at a compound annual growth rate of 16% from 2021 through 2028 as predicted by Fortune Business Insights E-bike Market analysis report (Fortune Business Insights, 2021). With future technology change, it is important to maintain the goals and objectives of keeping CT a non-motorized area.

3.1.1.1 Reasonably Foreseeable Actions

Reasonably foreseeable future actions that may impact recreation access and participation numbers on CT include increased usage over time if current recreation trends continue and the Campbell Airstrip Trailhead Parking Area Improvement Action presented in Section 2.2.6. Additionally, a future CCSC project under recent development is a proposal to develop and increase available parking to provide safer access for public pedestrians, dropping off/picking up children, and school busses with improved and redesigned pathways from a better designed parking lot to the CCSC facility. The alternatives are still under development. Based on 2021 BLM visitation counter data, approximately half of all users enter CT at either the SJ Trailhead (23%) or CAT Trailhead (25%), usually arriving by vehicle and parking in either trailhead

parking lot. The other half of CT recreation users tend to enter on trail connections from adjacent neighborhoods and the greater FNBP trail network. The gate and access to the CCSC parking lot is closed to public traffic after hours and on weekends therefore, it would not have the potential to increase recreational access during the CT peak weekend times of use. The number of outdoor recreators who utilize the CCSC parking lot is unknown as BLM has not incorporated the CCSC parking into the trail counter plan that is used to identify the number of visitors throughout CT. BLM recreation staff have observed and recognized a regular pattern of outdoor recreational use of the CCSC parking lot during normal business hours, often at lunchtime, over the past fifteen years. The number of recreation visitors during normal business hours is limited, but with the improvements and an increase in available parking that is part of the CCSC parking lot proposal this could have the potential to increase recreation visitation to CT.

Additionally, a 2016 Environmental Analysis (EA) analyzed a proposal to realign the BLM Road with East 68th Avenue and expand parking at the Smokejumper Trailhead. The construction has experienced delays and is now slated for construction this Summer, 2022.

There is a proposal to develop and increase the available parking at CAT. This CAT project is proposed for future construction and the proposed acreages and parking spaces are conceptual predictions to provide something for analysis until the snow free season allows more site inventory to occur.

While the CCSC alternatives are still under development, cumulatively, these three construction projects have the potential to account for an increase in 175 parking spaces and create 6.85 new acres of surface disturbance and vegetation removal. The proposed CAT project and CCSC projects are still in the conceptual phases and would likely change in size. Cumulatively, the CCSC parking lot, Smokejumper trailhead and CAT trailhead developments have the potential to increase visitation numbers at CT.

3.1.1.2 Snow Season - Trail Recreation Zone

The CT recreation environment is best described in terms of two seasons and two zones; the trail and dispersed (non-trail) zones and related activities that occur in each zone during the snow and non-snow seasons. Additionally, there are designated trails, which are officially authorized and maintained by the BLM, and there are user-created trails, which are unofficial and not recognized or maintained by BLM.

CT is perhaps best loved as a venue for trail-based snow season activities. With over 12 miles of designated multiple use groomed trails winding through boreal forest and along frozen anadromous streams, the CT snow season trail network provides excellent loop opportunities from nearby neighborhoods as well as BLM's CAT and SJ trailheads and the MOA's Abbott Loop and Hillside trailheads. CT trails connect seamlessly to the greater MOA trail system on FNBP and are groomed throughout the snow season in partnership with the MOA and local CT/FNBP user groups. CT is well established as the coldest pocket in the Anchorage Bowl and is known for receiving and retaining reliable snow throughout the winter.

Historically, ski-based recreation has been the mainstay of winter trail recreation on CT as fast-moving skate skiers and ski-jorers dominate the wider trails, and classic (cross-country) skiers utilize the narrower trails. The winter grooming of snow trails has traditionally accommodated both uses with classic tracks set next to wide corduroy for the skate skiers. Additional snow

season trail use includes hikers and dog walkers, snowshoers, equestrians, neighborhood walkers, and nature enthusiasts.

From about 2017 until now, low snow has discouraged skiers while evolving new recreation technology - Fat Bike use on existing unmanaged winter only single-track trails - has exploded and has become a dominant snow season trail use. Winter fat bike technology continues to evolve in conjunction with E-bikes. Like mountain E-bikes, winter fat bikes can also be an E-bike of varying classes. Unlike traditional skiing and snowshoeing, fat bikers generally prefer flattened or groomed trails which often results in increased competition for trail space and increased user conflict potential.

One result of this increased use and trail space competition has been the proliferation of temporary, existing unmanaged winter only single-track trails branching off the established trail network. Designed and packed out by trail users, these temporary seasonal routes provide additional miles of unregulated recreation opportunity into natural areas that have been generally considered dispersed recreation zones. Many outdoor recreators express enjoyment from using the narrower existing unmanaged winter only single-track trails.

In addition to the over 12 miles of multiple use snow season trails described above, CT also has approximately six miles of a 22-mile greater municipal designated winter sled dog trail network that supports local, National, and International Class sled dog races. Due to the fast speeds (20+ mph), the inability to stop quickly, and the quiet nature of mushing sports, the designated winter sled dog trail system is dedicated to a single use during the mushing season unlike all other trails on CT which are considered multi-use. Unexpected interactions between sled dogs and mushers with other pedestrian users (skiers, snowshoers, walkers, bikers) recreating on, or crossing over designated winter sled dog trails have resulted in numerous conflicts ranging from angry verbal interactions to more serious injuries to animals and humans alike. Anchorage is one of the few sub-arctic cities in the world with an urban sled dog trail network and this unique asset is treasured by many Anchorage and Alaskan residents. The designated winter sled dog trail network and race program, with 6 miles existing on CT, is managed in partnership with the ASDRA, who maintain the designated winter sled dog trails and coordinates with local land managers.

Depending on snow conditions, the designated winter sled dog trail network usually supports mushing practice and races from early December through early March. The typical end of sled dog activities coincides with the Anchorage Winter Fur Rondy, an Anchorage tradition since 1935, and the Iditarod Ceremonial Start Race events, having occurred on CT since 2003. Both events utilize portions of the CT designated winter sled dog trail system. In longer snow years, designated winter sled dog trail use has extended after these two events into late March.

3.1.1.3 Snow Season - Dispersed Recreation Zone

The dispersed recreation zone on CT encompasses all lands on CT that are not part of the administrative or trail zones. Developed and hardened trails do not exist in the dispersed zone and the character of this landscape is wooded and natural feeling, with more evidence of use by the resident wildlife than humans. Recreational users who explore off trail into the dispersed zone in the snow season encounter an ever-changing and constantly refreshing maze of animal tracks as moose and coyotes, hares and lynx, squirrels and voles, ravens and chickadees, and

numerous other species operate on, and pass through, CT. The CT dispersed lands connect seamlessly to the greater FNBP dispersed lands, which connect seamlessly to the higher elevation Chugach State Park (CSP) lands that comprise Anchorage's Front Range. These relatively unbroken and undeveloped wooded park lands provide a protected corridor along which much of Anchorage's wildlife moves in and out of the city. As a result, the CT dispersed zone provides somewhat of a refugia for local wildlife.

The dispersed zone provides opportunities for off-trail exploration with increased potential to encounter and view wildlife and forest processes. In addition to wildlife viewing, common recreation activities in the dispersed zone include exploring off trail on foot, snowshoes, and cross-country skis, threading through snow-covered spruce, alders, aspen, and birch that remarkably suppress the sounds of busy city activity just half a mile distant. Equestrians also utilize the dispersed zone during lower snow periods, as do orienteering users and geocachers.

Fat Bike use has entered the mainstream of snow season recreation sports in the Anchorage Bowl, including on CT. In the last five years, informal observers suggest that Fat Bike use has increased from 5-10 encounters on CT per day, to now sometimes a hundred or more encounters per day on a busy CT winter weekend. As the Fat Bike community has grown and evolved, enthusiasts have expanded their riding terrain by establishing the existing unmanaged winter only single-track trail network of interconnected single-track trails branching off the hardened trail networks of CT and FNBP, and into the dispersed recreation lands.

At present, the routing and development of the existing unmanaged winter only single-track trails is organic and unregulated by land managers. The most popular existing unmanaged winter only single-track trails seem to follow a similar footprint each year. New trails, however, do pop up with little regard to potential conflicts with other recreation uses. The most notable conflicts have occurred with the designated winter sled dog trail network. In 2018-19, two low-snow years of cancelled sled dog races on CT coincided with the increase of Fat Bikes. This resulted in an exponential increase in Fat Bikers on all CT trails and the subsequent discovery and use of the under-utilized designated winter sled dog trail network. When the designated winter sled dog trails became viable again with increased snowfall in 2020 ASDRA reported a concerning increase in non-sled dog recreational use on the designated winter sled dog trails, especially from Fat Bike use. There is potential for additional conflict to occur when these existing unmanaged winter only single-track trails abruptly intersect and cross designated winter sled dog trails with little consideration for the line of sight and stopping distance needs for either user group.

Discussions have been on-going between ASDRA, STA, MOA, BLM recreation staff, and the CT/FNBP User Group to identify solutions to educate users and reduce potentially dangerous interactions between these uses over the past two years. STA and ASDRA members have worked closely to help spread information about these safety issues. Users have re-routed some existing unmanaged winter only single-track trails, so that they intersect and cross designated winter sled dog trails at locations that have improved line of sight and stopping distance needs for both user groups.

3.1.1.4 Non-snow - Trail Recreation Zone

Non-snow recreation trail-based activities utilize the same 12 miles of permanent, hardened trails as snow season recreation. These officially designated trails range from wide single-track trails

approximately 3-4 feet wide to wider trails of road-width dimensions up to 10-12 feet and are maintained as such. The original backbone of the CT trail network follows the historic layout of the WWII Campbell Airfield, a satellite military installation including a 5000-foot runway, multiple taxiways and P-38 Lightning fighter/bomber parking ramps that were established at CT to disperse military aircraft originally based at the nearby Elmendorf Army Air Force Base. The still-active airstrip continues to be the distinguishing feature on Campbell Tract and the historic footprint of the original taxiway and ramp system is now mirrored by the Campbell Creek Science Center access road, the Coyote Trail, and portions of the P-38 Lightning Trail.

Coyote, P-38, and Lore Road Trails, along with Viewpoint Trail are hardened, road-width quality trails that safely support a wide variety of non-snow recreation pursuits including hiking, jogging, dog-walking, mountain biking, and equestrian use. The 2-mile Viewpoint Trail in particular, which extends the length of CT, is a critical Anchorage Bowl trail connection route which links the FNBP Homestead Trail to the south, with FNBP Old Rondy Trail to the north, providing both local and citywide trail loop connectivity. Due to its width and geography, Viewpoint Trail is routinely incorporated into local and city-wide permitted race events during all seasons including the 50-kilometer Tour of Anchorage ski and fat bike race and various snow and non-snow foot and bicycle events. Viewpoint Trail is arguably the busiest trail on the CT network and conflicts between large, permitted events and day-to-day recreational users are not uncommon.

The remaining CT designated trail network consists of hardened trails between 3 and 12 feet wide, and a plethora of unofficial, user created trails that provide connectivity between designated trails and other features on CT. These trails can offer a more intimate natural experience for pedestrian outdoor recreators as well as a more challenging, technical environment for cyclists. Salmon Run Trail, accessible from the CAT trailhead is a popular riparian trail that follows the South Fork of Campbell Creek. Recreational users from across the city, often accompanied by out-of-town guests, are drawn to this trail for reliable opportunities to view spawning salmon, American dippers, moose, and the frequently present, but rarely seen brown bear. Excellent opportunities to encounter and observe wildlife exist along all CT trails including black bear, moose, coyotes and resident and migratory songbirds. Trailside vegetation is managed to facilitate line-of-sight safety for fast-moving users as well as to reduce unexpected encounters with bears and moose.

During the non-snow season, all trails, regardless of width, are designated multiple use. P-38 Trail, a designated winter sled dog trail in the snow season, comes online as a designated multiple use major CT network connection trail in the non-snow season. Although not maintained in the summer, the rest of the narrow, rooty, unimproved snow-free designated winter sled dog trail network is frequented by solo walkers and adventurous mountain bikers with greatly enhanced opportunities to encounter wildlife.

E-bike use is currently not authorized on CT (BLM 2022, Draft CT RAMP Section 2.4.1). E-bike use is currently authorized on MOA trails in one form or another including FNBP. Much like Fat Bikes this new recreation activity and technology is rapidly expanding in the Anchorage Bowl including increased unauthorized use on CT. E-bikes provide access to area trails to a potential new user group that may be unfamiliar with general trail etiquette. E-bike use has the potential to increase trail use and trail conflict due to the ability of users to travel at speeds faster than a human powered bike. Conversely, some E-bike users have been observed traveling slower than a human powered bike. The purpose of the BLMs change in E-bike policy was to

give local land managers the ability to analyze the recreational desire and impacts associated with this evolving and increasing use. BLM is collaborating with the MOA and the local CT/FNBP User Group to reach out to E-bike retailers and users to inform and safely fold them into the recreation trail community. Section 2.2.3. references E-bike technology and the classes authorized. Any fully motorized recreational equipment (whether battery or gas engine powered included), such as One Wheel skateboards, are not authorized at CT as they are fully motorized. Pedal assist E-bikes, however, are not considered fully motorized. E-bikes that are fully motorized, full throttle, as well as non-pedal assist are not authorized at CT.

3.1.1.5 Non-snow - Dispersed Recreation Zone

The dispersed recreation lands on CT are utilized much more heavily during the non-snow season as the untrailed woods become more accessible to pedestrian users. The dispersed zone attracts hikers and nature enthusiasts escaping the busy designated multiple use trail system for quieter experiences with increased wildlife observation potential. Orienteering is also a popular pursuit in the dispersed zone, both recreational and competitive, as individuals and small groups navigate the woods with compass and GPS tools on fixed and freestyle courses. Geocaching is another common recreation activity as 5-10 or more geocache sites may exist on CT at any one time. Users also enjoy exploring the woods encountering foxholes and earthen revetments left over from the WWII military period and occasionally, although illegal, stumble on and remove related historic and cultural artifacts. Equestrians commonly venture off-trail into the dispersed zone, especially in areas of thinner foliage and open meadows.

Non-approved and destructive activities occur in the dispersed zone of CT including illegal fire building and camping, often associated with homeless individuals (Section 3.8.1). Additional impacts include the construction of stick and log shelters, dug out “forts”, and the establishment of user created trails which incrementally reduce the naturalness of the 730-acre CT over time. Once established, user created trails are almost impossible to close and rehabilitate as they further fragment CT and FNBP’s limited habitat. The dumping of yard waste, household trash, freezer-burned salmon, and the occasional appliance at trailheads and lands adjacent to roadways and local neighborhoods is also a common occurrence. Incursions by motor vehicles and motorcycle/trail bikes occasionally occur on both trails and dispersed lands, and illegal bow hunting, snare building and even shooting have occurred in past years. The unauthorized harvest of forest products including berries, herbs, and firewood have impacted the dispersed zones of CT as well.

3.1.1.6 Campbell Tract Visitation and Access

At the time of the development of the CT RAMP the COVID-19 Pandemic had been influencing CT visitation numbers and use patterns upward for almost two years. As a result, it is sometimes difficult to ascertain what the normal visitation trends are for CT recreation use versus Pandemic-influenced upward trends and whether they will “stick” or transitorily go down. Regardless, CT recreation site visitation has been increasing steadily over the past 20 years. Utilizing data reported in the BLM Recreation Management Information System (RMIS) CT reported 47,982 recreation visits in fiscal year 2003 (FY-03). In FY-21 RMIS reported 494,126 CT recreation visits, a ten-fold increase in use over the 20-year period. Over the same period,

drawing from official US Census data, the population of Anchorage grew from 271,616 in 2003 to 291,247 in 2020, a 7% increase in population (census.gov, 2021). Between 2010 and 2020, Anchorage growth was essentially flat, dropping from 291,826 in 2010 to 291,247 in 2020, again drawing from US Census data. Based upon these data CT's popularity and use as a recreation venue in the Anchorage Bowl is rapidly expanding, seemingly independent of Anchorage's static demographics.

Most recreation users access CT trails and dispersed recreation lands via three main road-accessible trailheads with associated parking lots: Smoke Jumper Trailhead, Campbell Airstrip Trailhead, or Abbot Loop Community Park (MOA). Four major non-motorized trail connections also provide user access from the FNBP trail network via Old Rondy Trail, Rover's Run Trail, Moose Meadow Trail, and Homestead Trail. Additional access is available from Lore Road Trail, a roadside neighborhood trailhead with no vehicle parking that is also the main entry point for equestrians due to its proximity to a family-owned stable and horse boarding facility. Additional, limited access to CT is gained from a handful of un-official social paths that shortcut between established MOA trails or snake onto CT from local neighborhoods. Virtually all recreation use associated with the CCSC is directly related to CCSC sponsored programs and activities. The CCSC facility and the CCSC parking area were closed to in person visitor use for almost all of 2020 to present due to the Pandemic.

Precise visitation statistics for CT are difficult to collect and measure due to various sociological and environmental challenges. Over the past 20 years visitor use data has been collected by various automated trail-counter systems installed covertly at 11-13 common trail and trailhead entry points, most recently utilizing TRAF-X brand infrared trail counters. These counters register most recreation users entering CT on designated trails and trailheads but may not capture users who walk in on the road system or enter CT on user created trails leading in from FNBP and local neighborhoods. In addition to this multiple entry point challenge, the physical trail counter devices themselves have limitations such as battery and unit failure in subzero conditions, heavy snowfall and non-snow precipitation events that can reduce counter range and accuracy, false counts due to wind-blown vegetation and wildlife passage, and the inability to distinguish individual users in tightly packed groups of walkers, skiers, and bikers. Counter accuracy has been ground-truthed over the years and minor adjustment factors are applied to annual visitation estimates to compensate for these issues.

Based upon 2021 BLM visitation counter data, approximately half of all users enter CT at either the SJ Trailhead (23%) or CAT Trailhead (25%), usually arriving by vehicle and parking in either trailhead parking lot. The other half of CT recreation users tend to enter on trail connections from adjacent neighborhoods and the greater FNBP trail network.

In 2021, well over 100,000 users accessed CT from SJ Trailhead, a paved, striped, and lighted parking lot located immediately off Elmore Road at the main entrance to the CTF. This parking lot has been enlarged three times since 2003 to accommodate increasing visitation. In every case additional increased use rapidly exceeded the newly established parking lot capacities resulting in excess vehicles parking haphazardly along both sides of BLM Road, restricting access, snow removal, routine maintenance, and sometimes blocking the gates to both CCSC and CTF roadways. This unregulated parking poses safety concerns for recreational users as they pop out between improperly parked vehicles and may restrict after-hours emergency vehicle access to either CTF or CCSC facilities.

The majority of the SJ Trailhead capacity and safety concerns would be addressed upon construction of the new entrance into CTF that will align the main CTF entrance road with the existing 68th Avenue/Elmore Road intersection and traffic signals. Construction of this already approved DOT funded project has been delayed for four years but completion is expected in 2022. The project design calls for a greatly expanded SJ parking lot with striped parking for 45 vehicles, 20 more than the existing 25 parking spaces, that will be located on a side spur from the main CTF/CCSC entrance road, greatly increasing safety for recreation users by isolating the parking lot from daily CTF thru-traffic.

Another 25% of recreation users access CT from the north via the Campbell Airstrip Trailhead located at Mile 1.1 on Campbell Airstrip Road in FNBP. This remote, semi-improved gravel parking lot, jointly managed by BLM and the MOA, is unstriped and unlit, with a notoriously potholed and iced over, muddy, or dusty surface depending on the season. Due to the isolated nature of the trailhead and a lack of lighting throughout the long, dark Alaskan winters, vehicle break-ins and related trailhead crimes are relatively common. As with SJ, the poorly designed parking lot is commonly overloaded beyond capacity resulting in potential user safety issues associated with crowded and disorganized parked vehicles. The BLM and MOA are pursuing future options to improve and expand vehicle capacity and address user safety issues at CAT (Section 2.2.6).

In 2021, the remaining 200,000+ CT recreation visitors entered and exited CT on bike or foot from adjacent connecting roads and trails. Of this, over 100,000 of these users entered and exited CT from the south at the Little Campbell Creek Bridge where BLM's Viewpoint Trail meets the MOA's Homestead Trail. This is the common entry point for users traversing CT from FNBP and MOA points south and is regularly utilized by skiers, bikers, walkers, and urban bicycle commuters. Major permitted city-wide races and events commonly utilize the Viewpoint Trail corridor through CT as it represents the only all-season practical route connecting FNBP and CT trails into the greater MOA trail network. Commonly known as the "Tour Trail" this route supports various BLM and MOA activities and permitted events including the Tour of Anchorage (one of the largest ski races in the US), Fat Bike races and youth biking events, equestrian events, local high school running and ski team practices, and year-round individual recreation activities. The BLM trail network feeds into the overall and much larger Anchorage trail system. As a result of Viewpoint Trail's geography and popularity, large groups and frequent races and events can crowd regular daily recreation users on the trail, impacting both their safety and recreation experience. Providing opportunities for permitted events that travel across CT to FNBP, while reducing conflict and minimizing impacts on other Viewpoint Trail users is a future priority need.

Both FNBP and CT are popular venues for snow and non-snow season races, activities, and events. BLM issues Special Recreation Permits (SRPs) for races and events that occur on CT and assimilates permits issued by the Muni for activities that cross CT as per a 1987 Cooperative Management Agreement (CMA). After the conclusion of this planning process the BLM and FNBP will collaborate to update the older CMA. Races permitted by either entity include the highly organized and well-attended Tour of Anchorage ski and bike race, the Frosty Bottom Fat Bike Race, and Marathon foot race. Additional SRPs are issued to organized groups such as the Arctic Orienteering Club and Mighty Bikes youth mountain bike program who utilize CT lands for non-competitive skill development and events.

In support of CT visitation and access, the BLM performs routine recreation site and trail maintenance on CT to include trail hardening, trail grooming, vegetation maintenance, and information, safety, and directional sign and kiosk upkeep. BLM recreation specialists conduct most day-to-day work on the ground and use summer youth trail crews for 1–2 weeks for trail resurfacing and vegetation control projects.

3.1.2 Environmental Effects —No Action Alternative

The environmental effects to recreational resources in this alternative are broad with many potential outcomes. Continuing to manage CT from the CT 1988 Management Plan, without an updated RAMP that provides comprehensive analysis and authorization to perform routine maintenance, address changes in recreation technologies, and manage the continued increase in visitation on CT has the potential to degrade highly valued recreational experiences sought by the visiting public.

3.1.2.1 Year-Round Single-Track Trail

Under the No Action Alternative BLM would not authorize developing a narrow year-round multi-use single-track trail. By not developing the year-round single-track trail there will likely be continued pressure in the trail recreation zone during high visitation times and dates, particularly on the Viewpoint Trail and the P-38 Trail due to the increasing number of visitors CT has experienced over the past 30 plus years, especially during events such as the Tour of Anchorage race as there will be no means to bypass those routes and connect to other trails throughout the trail network. During winter months, conflicts will likely continue between user groups, particularly with sled dog teams and other outdoor recreators on the P-38 Trail when it is only open to sled dog teams.

3.1.2.2 Trail System Maintenance

Under the No Action Alternative BLM would follow guidance in the CT 1988 Management Plan for routine trail maintenance. The current guidance provides management with flexible options which may require additional site-specific NEPA analysis to perform on the ground activities.

3.1.2.3 E-Bike Types and Authorized Use Areas

Under the No Action Alternative BLM would retain the current E-bike definition that all E-bikes are classified as Off Highway Vehicles (OHVs). As such, BLM would continue restricting E-bikes on CT. E-bike restrictions will continue to be very difficult to enforce as E-bikes are authorized on the connected FNBP trail network and their unauthorized use on CT trails continues to rise. Additionally, E-bikes are becoming more popular with outdoor recreators, and the E-bike industry has continued to grow over the past several years.

3.1.2.4 Winter Only Single-Track Trails

Under the No Action Alternative BLM would not incorporate and authorize the maintenance of the existing winter only single-track trails into the designated snow season trail network. By not incorporating these trails, the potential for resource damage will be unknown and unmitigated without managerial controls. The trails would not be able to receive any form of maintenance such as brushing and special STA grooming.

3.1.2.5 Fuels Management Treatments

Under the No Action Alternative BLM would not address the burgeoning hazard tree situation on CT. Hazard trees will only be removed if they posed an immediate threat or fall onto a road or trail. The BLM would be unable to proactively remove hazard trees with an identified buffer thus reducing the threat to trails, roadways, parking lots, and other administrative areas.

Under the No Action Alternative BLM would not maintain the existing shaded fuel break (Appendix E: Map #7). Future maintenance of the existing shaded fuel break would require further separate NEPA analysis. The existing fuel break would likely continue to degrade to its pre-2001 condition or worse. Without maintenance, the existing fuel break would not function as a wildland fire control line and not provide a defensible position for emergency responders.

3.1.2.6 Campbell Airstrip Trailhead (CAT) Parking Area

Under the No Action Alternative BLM would retain the current management strategy and condition of the Campbell Airstrip Trailhead. Without adequate infrastructure at the trailhead, it is likely that there would continue to be high congestion and an increased risk to personal safety and security of property.

3.1.2.7 Recreation Permit Authorizations

Under the No Action Alternative BLM would continue to utilize the CT 1988 Management Plan for guidance on issuing or denying SRP's. SRP requests would be subject to a review of the proposal and compliance with the objectives of the CT 1988 Management Plan to address impacts to recreational opportunities and government facilities.

3.1.3 Environmental Effects—Proposed Actions & Future Actions

3.1.3.1 Year-Round Single-Track Trail

Should the recreational trail network be expanded or modified, and how could this expansion affect the recreational opportunities or experiences of all visitors?

Developing a narrow year-round multi-use single-track trail would add approximately 1 mile to the CT trail network. Doing so would increase the overall trail density by adding to the trail recreation zone and slightly decreasing the dispersed recreation zone. The proposed trail corridor would be approximately ½ acre. The 1-mile half-acre addition to the trail network would be a marginal addition to the annual operational workload. It would likely have the beneficial effect of dispersing the high volume of visitors CT has experienced over the past 30 plus years. The trail recreation zone would likely benefit from the reduced congestion and traffic. The dispersed

recreation zone would likely benefit as the trail is narrower, and the forest environment is far less removed than the wider trails on CT. Development of the narrow year-round single-track trail would follow the BMPs described in Appendix H: Project Design Features (PDF's) and Best Management Practices (BMP's).

Development of this trail would likely reduce the high volume of visitors and the congestion on the Viewpoint Trail and the P38 Trail during high visitation times and dates, especially during events such as the Tour of Anchorage race as it would provide a means to bypass those routes and connect to other trails throughout the network. During winter months this trail would likely reduce conflict between user groups, particularly with sled dog teams on the P38 trail when it is only open to sled dog teams. Conversely, this trail may provide an opportunity for non-sled dog users to shortcut onto the P38 trail resulting in additional conflict. To mitigate this potential conflict, additional signing would be placed during winter months to warn users to stay off the designated winter sled dog trails during winter. In addition to preventing user conflict and overcrowding on the Viewpoint Trail, this trail would provide a loop option by connecting to the "Rambone" and the "Stranger" trails.

3.1.3.2 Trail System Maintenance

Should the BLM analyze and authorize routine trail system maintenance activities on Campbell Tract?

Routine trail system maintenance ensures the natural setting of CT persists into the future through various maintenance activities such as trail surface maintenance, vegetation brushing, and hazard tree removal. The adverse environmental effects of maintaining trail corridors would be temporary and infrequent as trail maintenance typically occurs on an as needed basis during summer months. The adverse effects include, but are not limited to, loud noise from motorized equipment, detours or delays for visitor safety, ground disturbance for signpost repair and installation, and detours during trail surface maintenance.

Routine trail system maintenance in the existing disturbed footprint helps to improve and maintain proper trail drainage to prevent ruts, ponding or pooling along the trail surface. Additionally, brush along trails needs to be thinned periodically to maintain sightlines, which if not done can obstruct the trail corridor and pose a safety risk to visitors who may not see wild animals or other recreators in time to react appropriately. Improperly maintained trails can impact recreation users, cause trail tread damage and lead to the development of social trails. Social trail development can occur as users avoid obstructed and damaged sections of trail. Social trails fragment the dispersed recreation zone and are often destructive to the surrounding vegetation. Trail system maintenance activities would follow the BMPs described in Appendix H: Project Design Features (PDF's) and Best Management Practices (BMP's).

3.1.3.3 E-Bike Types and Authorized Use Areas

How would the use of E-bikes on Campbell Tract affect overall visitor experiences?

The physical environment would not be significantly affected by authorizing Class 1 E-bikes as the impact to the trail tread would be low and very similar to a traditional mountain bike (IMBA E-bike Impact Study 2015). While the impacts from E-bikes on well maintained and sustainable

trails remains low, an overall increase in the number of bicycles may lead to greater soil displacement under certain conditions, such as through turns including banked turns; on ascents and descents; and where there are abrupt changes in trail conditions. On CT trails, the main source of bike related impacts come from riding during breakup where isolated sections of the trail have the tendency to become over saturated, which may lead to trail damage in the form of ruts. CT has very few sections that are negatively affected by bicycles. These effects are mitigated through routine trail system maintenance, trail design, layout, and hardening of the trail surface with the selective application of a porous gravel mix. Trail system maintenance activities and actions from the authorization of Class 1 E-Bikes would follow the BMPs described in Appendix H: Project Design Features (PDF's) and Best Management Practices (BMP's).

The effects of this action upon the social environment would be to authorize a previously restricted use on the trails, which has the potential to increase visitation to CT. While this use is currently authorized on adjacent lands, it is likely that CT is already realizing the impact from this use with an increase in visitation. The effect of additional visitors would be mitigated by limiting the types of E-bikes authorized on CT to Class 1 E-bikes. There are many types of E-bikes on the market, with likely many more adaptions and changes to come. These changes to technology would be analyzed for conformance to the Class 1 E-bike designation before authorizing or restricting use on CT. Additionally, there are social benefits to authorize E-bike use on CT as their use reduces carbon emissions from vehicular travel, would allow users to "recreationally commute" across town, and reduces some physical barriers to cycling those traditional bikes pose.

There would be no significant management effects to the recreation environment from this action. The only management change would be to authorize Class 1 E-bikes on CT trails by re-classifying E-bikes from an OHV designation to a more traditional mountain bike designation. Mountain bikes are an authorized use in the trail recreation zone. Signs may need to be created and installed to inform the public about the determination of E-bike use on CT. If signs are required to inform the visiting public that Class 1 E-bikes are authorized, that may be a temporary burden on management. This can be mitigated through prior planning, as well as working with volunteers and partner organizations.

3.1.3.4 Winter Only Single-Track Trails

What are the impacts of the existing unmanaged winter only single-track trails?

The effects to the physical environment resulting from the proposed action would primarily be to the dispersed recreation zone during the winter months as the existing unmanaged winter only single-track trails would not exist outside of winter and the appropriate frozen ground conditions. Visitors to the dispersed recreation zone may encounter narrow winter only single-track trails and may see and hear visitors who are using these trails. This impact would be minimized by limiting the number of authorized and managed winter only single-track trails to include the locally referred to trails named "Stranger Trail", "Slow Way Trail", "Shaggy Trail", Scooby Trail", "Rambone Trail", "Scary Tree Trail" and MOA's Blue Dot Trail (only trail on map that is summer and winter use) (Appendix E: Map #1 & #5). These trails are not traveled (excluding Blue Dot Trail) during summer months as they blend into the surrounding landscape and the surrounding vegetating make it very difficult to travel through. Some portions of these trails traverse bogs or marshes for easy frozen winter travel but create barriers to summer use. Using

these features as management controls mitigates summer use and aids in winter trail design and layout. Game trail cameras placed on two existing unmanaged winter only single-track trails showed no recreation use during summer months.

The social effects of this action on the recreation experience would likely include seeing and hearing visitors in the dispersed recreation zone during winter where those sights and sounds wouldn't typically occur. For some visitors this may disrupt attainment of a feeling of solitude and connectedness with the landscape. Disruptions in the dispersed recreation zone would be seasonally limited, and the number of trails authorized would be limited to the existing unmanaged winter only single-track trails identified in Appendix E: Map #1 and #5.

A beneficial effect of this action is the increased access during the winter months. The past several years BLM has done informal visitor interviews on these trails and throughout CT where visitors who travel on these trails have expressed the sense of enjoyment and fulfillment in the exploration and unique experience these trails provide while being surrounded by a natural landscape that is typically inaccessible during the non-winter months.

The effects of this action on future management include additional winter workload to manage these newly designated trails. This can be mitigated by developing a winter trail maintenance plan, budgeting for an increase in workload based on the winter trail maintenance plan, hiring winter seasonal staff, enlisting volunteers, and working with partner organizations to maintain all trails. Visitors may take it upon themselves to sporadically maintain the winter trails. This would be mitigated through management actions early in the season. Those actions could include, but not be limited to, trail route setting, very limited brush or tree clearing, and very limited signing (if needed for resource protection only) but not for navigational travel to maintain the sense of exploration. The trail would be set by BLM, volunteers, or partner organizations to ensure the trail does not impact vegetation and stays within the identified corridor. Trail system maintenance activities would follow the BMPs described in Appendix H: Project Design Features (PDF's) and Best Management Practices (BMP's).

3.1.3.5 Fuels Management Treatments

What are the recreational impacts from applying the Fuels Management Treatments proposed projects and how could this removal affect the recreational opportunities or experiences of visitors?

The effect of the proposed action on the physical recreation environment from the felling and removal of hazard trees and maintenance of the existing shaded fuel break, include potential trail tread damage, degradation to the RSCs, and trail closures and detours. These effects would be mitigated by ensuring equipment does not exceed the tread width for any segment of trail or road that it would travel on. The fuels project manager would consult with the AFO natural resource team, to include the Recreation, Cultural, Hydrology, Ecology, Wildlife, and Fisheries specialists when developing the project treatment plan to address the fuels treatment standards outlined in Section 2.2.5., but also include any site-specific area considerations to be made regarding the RSCs. The physical benefits to the recreation environment could be an increase in public safety during ingress and egress for emergency personnel and visitors in the event of wildfire or other types of emergency situations on CT such as extracting injured persons.

The effect of the proposed action on the social component of the recreation environment would include temporary disruption and displacement of outdoor recreators in areas that otherwise would be open. Additionally, the removal of hazard trees may open the boundary between the trail recreation zone and the dispersed recreation zone which may increase visitor access and use in the dispersed recreation zone. The effects would be mitigated by implementing a phased approach to limit user disruptions. The beneficial effects of this action over time would be increased visibility both on and off trail which helps prevent negative wildlife encounters. The effects of this proposed action on future management include increased workload to maintain the trail system and inform the public. The project manager would be required to consult with the AFO Resources natural resource team, to include Recreation, Hydrology, Ecology, Wildlife, and Fisheries when developing the project treatment plan to ensure the use of equipment and methods align with the goals of the RAMP and utilize all appropriate mitigation measures, BMPs, and stipulations from Appendix H: Project Design Features (PDF's) and Best Management Practices (BMP's). This effect would be mitigated through internal BLM coordination on project specific logistics prior to implementation, hiring seasonal staff, enlisting volunteers, and working with partner organizations to maintain the trails. The 100-foot buffers would avoid or minimize negative surface impacts, such as degrading habitat, disturbing soils and vegetation, and damaging trails. The beneficial effects of the 100-foot hazard tree buffer include fewer trees obstructing the trails and associated decrease in hazard tree workload. This decrease in workload frees up staff and resources to be utilized elsewhere as needed. Additional benefits to management and outdoor recreators come from fire control lines that provide improved access for emergency personnel, and defensible space around facilities in the event of a wildfire. Fuels Management Treatments activities would follow the BMPs described in Appendix H: Project Design Features (PDF's) and Best Management Practices (BMP's).

3.1.3.6 Campbell Airstrip Trailhead (CAT) Parking Area

What are the recreational impacts of expanding/improving the CAT parking area?

There is currently 0.6-acre gravel parking lot that, under the Proposed Action, would be expanded and paved to a total size of approximately 2.2 acres. This would account for approximately 1.6 acres of new disturbance.

The effects of the proposed action on the physical environment would temporarily disrupt visitors to the CAT parking lot during construction. This may require visitors to temporarily park at alternative trailheads which has the potential to overburden individual parking lots. The effects would be mitigated by prior communications with the MOA to install appropriate messaging and signs prior to construction. Signs would detail alternative parking locations to distribute visitors so as not to overburn any individual parking lot. The beneficial effects to the physical environment include a safer trailhead experience as the parking lot would be paved, striped, signed, and have a logical traffic flow. Additionally, area lighting, security cameras, and other features would enhance visitor safety. In contrast to the past, visitors and their vehicles would benefit from modern amenities such as lighting, security cameras and a hardened parking surface free of potholes and flooding.

The effect of the proposed action on the social environment would be an increase in the number of vehicles from the current 25 to 120 that are able to park at the CAT parking lot due to both an increase in the overall size of the parking area as well as better organized and identified parking

spaces. The increased parking capacity would contribute to users hearing and seeing more people at the trailhead during peak hours and days of use. The effects would be mitigated by the parking lot design. The parking lot is designed so that the parking spaces are broken up into two distinct sections that would create less congestion and reduce the number of people seen and heard while looking for a place to park and embarking to the trail system. The beneficial effects to the social environment would be a reduction in congestion, improved traffic flow to and from the parking lot, enhanced sight distances onto the Campbell Airstrip Road and a safer ingress and egress to and from the trail system. The organized and smooth parking process visitors would have when they begin their visit would reduce the stress and frustration currently experienced with the no action alternative.

The effects of the proposed action on future maintenance would include a temporary increased workload to inform the public about construction. This can be mitigated through internal BLM coordination on project specific logistics prior to implementation, hiring seasonal staff, enlisting volunteers, and working with partner organizations to assist with informing the public about trailhead closures and where to park to access CT. Additionally, the effects would be mitigated through communication and consultation between the project lead and management staff prior to developing a contract scope of work and specifications to ensure the use of equipment and methods align with the goals of the RAMP and utilize all appropriate mitigation measures, BMPs, and stipulations from Appendix H: Project Design Features (PDF's) and Best Management Practices (BMP's). The beneficial effects to management would be a decrease in resources needed to clean up and respond to vandalism and public requests for safer and modern parking amenities

3.1.3.7 Recreation Permit Authorizations

What commercial activities, competitive activities, and private events should BLM permit on Campbell Tract?

The effect of the proposed action on the physical environment would be temporary and sporadic increases in visitation to the trail recreation zone and the dispersed recreation zone would occur as a result of authorized SRP events. The effects would be mitigated by following RSCs on a case-by-case basis to address group sizes, frequency of events, conflicting dates of events (to prevent multiple events overlapping and ensuring events occur outside of high visitation days and times), the time events occur, the number of events, as well as the event route. The beneficial effects on the physical environment come from SRP holders that clean up after themselves as well as other visitors, thereby maintaining the natural setting of CT.

The effect of the proposed action on the social environment are temporary and sporadic increases in visitation. Outdoor recreators would see and hear participants in SRP events while visiting the trail recreation zone and the dispersed recreation zone. The effects would be mitigated by following RSCs on a case-by-case basis to address group sizes, frequency of events, conflicting dates of events (to prevent multiple events overlapping and ensuring events occur outside of high visitation days and times), the time events occur, the number of events, as well as the event route. These mitigations would aim to reduce the number of visitors CT receives with the added benefit of reducing congestion and conflict between participants of permitted events and the general public. The beneficial effect to the social environment occurs throughout SRP events as

participants report a realization of accomplishment, self-worth, a connectedness to nature, comradery, and teamwork, among a host of additional social benefits to using public lands.

The effects of the proposed action on future management include a temporarily increased workload. The effects would be mitigated by using discretion to authorize or not authorize SRPs as staffing and management allow. The beneficial effects on future management come from having clear direction and authority on authorizing or not authorizing recreation activities that may otherwise be approved with fewer guidelines under the no action alternative and without the updated management controls in Appendix H: Project Design Features (PDF's) and Best Management Practices (BMP's).

3.2 Resource Issue 2: Forest Health & Fire/Fuels Management

3.2.1 Affected Environment

CT is an BLM administrative site and SRMA located within the MOA with high recreational use from surrounding communities. The CT is surrounded by MOA managed forested park land on 3 sides, to the north, east, and south. The west side is bordered by a subdivision and other subdivisions range from 0.3 miles to 1.75 miles from the border with BLM CT. BLM manages the CT under the Critical Fire Management Option (AIWFCG, 2021) because it is within the Wildland Urban Interface (WUI).

> Four wildfire management options (Critical, Full, Modified, Limited) are employed statewide by federal and state agencies, and Alaska Native groups to:
>
> -Prioritize areas for protection actions and the allocation of available firefighting resources to achieve protection objectives.
>
> -Optimize the ability to achieve land use and resource management objectives and integrate fire management, mission objectives, land use, and natural resource goals.
>
> -Reinforce the premise that the cost of suppression efforts should be commensurate with the values identified for protection.
>
> Planning Considerations – Critical Fire Management Option
>
> Lands in wildland urban interface and other densely populated areas where there is an immediate threat to human life, primary residences, inhabited property, community-dependent infrastructure, and structural resources designated as National Historic Landmarks should be considered for the Critical Management Option. This classification is applicable to an entire village or town as well as a single inhabited structure.
>
> Excluding fire from Critical Management Option areas may necessitate vegetation (fuels) management projects to reduce and mitigate the risks of damage from a wildfire.

The WUI is defined by the National Wildfire Coordinating Group as the area where structures and other human development meet or intermingle with undeveloped wildland or vegetation

fuels. The appropriate management response for wildfire within the Critical Fire Management Option areas is aggressive with continued actions to protect the area from fire without compromising firefighter safety.

Conducted in 2000, an inventory of 652 acres surveyed on CT indicated the overall forest habitat species makeup consists of 82.4% paper birch classes (537.2 acres) and specific results of all vegetation classes were (Guyer, 2000):

- 31.5% (206 acres) white spruce/paper birch forest.
- 23.5 % (153 acres) paper birch open forest.
- 12.8% (83 acres) paper birch closed forest.
- 12.6% (82 acres) spruce/moss forest.
- 8.6% (56 acres) paper birch/white spruce open forest.
- 6.0% (39 acres) paper birch woodland.
- 1.5% (10 acres) balsam poplar closed forest.
- 1.3% (8 acres) disturbed.
- 1.0% (6 acres) low shrub birch mixed scrub.
- 0.7% (5 acres) white spruce woodland, and.
- 0.6% (4 acres) balsam poplar/willow scrub.

Utilizing the detailed Vegetation Survey of Campbell Tract, the corresponding Alaska fuel types were selected from the Fuel Model Guide to Alaska Vegetation (AIWFCG, 2018) to determine a rate of spread for the four highest occurring stand types within CT under average to very low moisture conditions. Those fuel types are:

- White spruce/paper birch forest is considered Alaska fuel type (19)
- White or Black Spruce with Paper Birch and/or Aspen and has a rate of spread of 4.19-6.09 chains/hour.
- Paper birch open forest is considered Alaska fuel type (15)
- Open Paper Birch Forest and has a rate of spread of 1.17-1.1.85 chains/hour.
- Paper birch closed forest is considered Alaska fuel type (14)
- Closed Paper Birch Forest and Closed Quaking Aspen Forest and has a rate of spread of 1.17-1.85 chains/hour. Spruce/moss forest is considered (3)
- Closed Black Spruce and Closed Mixed Black Spruce-White Spruce Forest and has a rate of spread of 9.84-16.36 chains/hour.

Fire is a naturally occurring disturbance within Alaskan forests. Under U.S. Forest Service scheme of classification (Hardy et al. 1998) both white and black spruce are classified as fire

regime group 4-moderate frequency (every 35-200 years), stand replacing fires. Fires in deciduous forests, like CT, are generally low intensity when they do occur (Guyer, 2000). This means under natural conditions without human interference wildfires would occur in spruce as stand replacement fires with moderate frequency and the deciduous stands (such as the paper birch open and closed classes on CT) would have low intensity fires. However, fire has historically been excluded from CT resulting in unnatural conditions. "Fire exclusion in forests with long stand replacement cycles results in increased fire hazard at the landscape level because of greater contiguous areas of flammable mature forest and fewer young, less flammable patches of herbaceous, shrub, or deciduous forest… Exclusion of fire itself raises its risk, intensity, and severity" (Guyer, 2000).

The CT forest has experienced repeated infestations of spruce bark beetle (*dendroctonus rufipennis*) (Guyer, 2000). These infestations have resulted in dead and/or dying and damaged trees across much of CT. These trees present a safety hazard to land managers, outdoor recreators, and all users on trails, roadways, and parking areas, as well as first responders who may access CT using trails, roads, parking areas, and other forms of ingress/egress. Hazard trees, if left untreated, increase the risk of a more intense wildfire as they represent an increase in fuel availability. The current state of available fuel for a wildfire on CT poses a serious threat to CT and neighboring lands, as well as firefighters and first responders, particularly along ingress and egress evacuation routes.

The future trend of spruce bark beetle infestations and related tree die-off is demonstrated to trend upward (Flint C. G. 2006). BLM staff have continually noted changes from year to year with increased amounts of tree mortality. The forested land either side of the BLM entrance road has a particularly noticeable increase of tree mortality. Nationwide, the BLM has increased funding to perform fuel reduction treatments, particularly in WUI areas. Due to past fire suppression and recent beetle infestations, fuel loading in Anchorage has increased (Werner, 2006). It is, therefore, reasonably foreseeable that the State of Alaska at nearby Chugach State Park and the Municipality of Anchorage would increase implantation of fuels treatments into the future. BLM would collaborate with local fire agencies for future fuels projects that could be on either BLM, MOA, or State of Alaska lands. Future federal funding opportunities could use federal fuels project dollars on non-federal land using the "Good Neighbor" agreement authority.

Other influential trends that are likely to modify the existing vegetation composition include forest pathogens and insect pests often associated with a changing climate. Existing stands of aspen, paper birch, and black cottonwood tend to be aging and decadent and healthy replacement of these species is sparse due to extreme moose browsing pressure. In addition, the cyclical nature of spruce bark beetle infestations would result in mortality of mature white and black spruce on CT and the proliferation of less desirable understory browse species including alder.

3.2.1.1 Reasonably Foreseeable Actions

During the preparation of this EA one of the proposed actions to construct an additional shaded fuel break was removed from further detailed analysis, Section 1.8.9. The BLM wants to plan for a more comprehensive look at fuels management around CT with neighboring partners. The hazard tree and existing fuel break treatments proposed in this effort are a good start and demonstrate why more fuels treatments are needed. To the degree this is possible, the analysis in

this document would help bolster support of a future comprehensive fire management plan as well as share this information and future intent with the public.

3.2.2 Environmental Effects—No Action Alternative

3.2.2.1 Year-Round Single-Track Trail

Under the No Action Alternative BLM would not build a year-round single-track trail. Therefore, BLM would not provide public access to the proposed project area, which may minimize human caused wildfires (Appendix E: Map #7). However, without the year-round single-track trail to use as a possible holding line, there would be less access to the proposed project area for first responders in the event a wildfire occurs in the vicinity of the proposed project area. The effect of not building a year-round single-track trail to forest health and fire/fuels management would be negligible.

3.2.2.2 Trail System Maintenance

Under the No Action Alternative BLM would follow guidance in the CT 1988 Management Plan for routine trail maintenance. The current guidance is vague and may require additional site-specific NEPA analysis to perform on the ground maintenance activities. As trails grow in and fall into disrepair, it would make first responder access difficult and slower as first responders would likely be required to cut overgrown vegetation on trails during emergency response. Over time the trails would become ineffective for use as fire control lines which would result in an increasingly lower probability for successful fire suppression. The longer the trails go without maintenance forest vegetation growth would continue which would compound the current fuel load. The forest health and fire/fuels management effects of not maintaining the CT trail system would likely mean a delayed wildfire and emergency response.

3.2.2.3 E-Bike Types and Authorized Use Areas

Under the No Action Alternative there would be no direct, indirect, or cumulative effect to forest health and fire/fuels management if E-bike use were not authorized.

3.2.2.4 Winter Only Single-Track Trails

Under the No Action Alternative there would be no direct, indirect, or cumulative effects to forest health and fire/fuels management if the existing unmanaged winter only single-track trails were not implemented.

3.2.2.5 Fuels Management Treatments

Under the No Action Alternative BLM would not address the burgeoning hazard tree situation on CT. Hazard trees will only be removed if they posed an immediate threat or fall onto a road or trail. The BLM would be unable to proactively remove hazard trees within the buffer to reduce the threat to trails, roadways, parking lots, and other administrative areas.

The forest health and fire/fuels management effect of not addressing hazard trees would be an increase in fuel loading leading to an increase in fire intensity in the event of a wildfire ignition, as well as a decreased probability in the successful control of a wildfire. There would be an increase in detrimental resource impacts such as degraded habitat, disturbance to soils and vegetation, and trail damage resulting from hazard trees falling in trail corridors. Social trails and hazardous fuel buildup on the forest floor would perpetuate and compound over time, increasing the intensity if a wildfire were to ignite or spread into CT. This would also increase the safety risk to visitors, staff, and nearby neighborhoods. The effects would be long term in nature, extend beyond the proposed project area, and could have a cumulative impact to the adjacent forested lands.

Also, under the No Action Alternative BLM would not maintain the existing shaded fuel break (Appendix E: Map #7) and future maintenance of the existing shaded fuel break would require further NEPA analysis. Without maintenance, the existing fuel break would be a less effective fire control line and would not provide a defensible position for emergency responders.

3.2.2.6 Campbell Airstrip Trailhead (CAT) Parking Area

Under the No Action Alternative BLM would not analyze the construction of the future CAT parking area. The current parking area is unorganized and sporadically maintained. The effect of not constructing the CAT parking area would continue to make emergency ingress/egress and response challenging and unreliable.

3.2.2.7 Recreation Permit Authorizations

Under the No Action Alternative BLM would continue to utilize the CT 1988 Management Plan for guidance on issuing or denying SRP's. SRP requests would be subject to a review of the proposal and compliance with the objectives of the CT 1988 Management Plan to address impacts to recreational opportunities and government facilities.

3.2.3 Environmental Effects— Proposed Actions & Future Actions

What are the impacts from applying the proposed fuels treatments to CT to reduce hazards as well as manage wildfire fuel loading into the future?

3.2.3.1 Year-Round Single-Track Trail

Developing a narrow year-round multi-use single-track trail would add approximately 1 mile to the CT trail network. The proposed trail corridor would be approximately 2 to 3 feet wide and impact roughly ½ acre of forested land. The effect of this action on forest health and fire/fuels management would be increased public access in an area that would previously be more difficult to access. This increased public access has the potential to increase the risk of human caused wildfires. The beneficial effects include increased access for first responders by creating a potential fire control line, as well as providing a break in the vegetation which may help slow the spread of a wildfire should one occur. The proposed project area is in close in proximity and runs

parallel to the P38 Lightning Trail and the Viewpoint Trail, which are both accessible to first responders and fire fighting vehicles.

3.2.3.2 Trail System Maintenance

Routine trail system maintenance ensures the natural setting of CT persists into the future through various maintenance activities such as trail surface maintenance, vegetation brushing, and hazard tree removal. Trail maintenance typically occurs on an as needed basis during summer months. The effect of this action on forest health and fire/fuels management would be a continual reduction of fuels throughout the trail system as maintenance would include removal of light flashy fuels and limbs for improved trail sight distances, which have the added benefit of maintaining future wildfire control lines. Another beneficial effect of this action on forest health and fire/fuels management would be decreased wildfire response times on CT trails as the trails would be maintained and not blocked by trees and brush. A negative effect of implementing this action could be an unintentional increase in fuel loading by concentrating slash in the woods adjacent to the project area. Slash would be managed by following the BMPs described in Appendix H: Project Design Features (PDF's) and Best Management Practices (BMP's).

3.2.3.3 E-Bike Types and Authorized Use Areas

The authorization of Class 1 E-bikes on CT trails, as described in the proposed action, would likely result in an increase in the number of outdoor recreators to CT. The effect of this action on forest health and fire/fuels management may be an increase to the risk of human caused wildfires. E-bikes are powered by stored energy in a battery, which are often lithium batteries, and could be a source of ignition (LithiumSafe 2022). While there has been an increasing number of documented cases of lithium batteries in E-bikes exploding and/or catching fire, these accidents have generally occurred while actively charging or "plugged in". Many cases additionally point to aftermarket modifications to the E-bikes charging system as the ignition source as well as improper battery maintenance. To mitigate this effect, it is recommended that no future E-bike charging stations be located near flammable vegetation on CT.

3.2.3.4 Winter Only Single-Track Trails

There would be no direct, indirect, or cumulative effects to forest health and fire/fuels management from the winter only single-track trails proposed action.

3.2.3.5 Fuels Management Treatments

There are two proposed actions under the Fuels Management Treatments in the proposed project areas (Appendix E: Maps #6 & #7): to remove hazard trees (Section 2.2.5.1) and to perform maintenance on an existing fuel break (2.2.5.2). Both actions would have a long-term beneficial effect on forest health and fire/fuels management on CT. The hazard tree treatment would reduce the current fuel load and help maintain the safety of administrative sites and recreational trails at CT for emergency response and user safety in the event a wildfire occurs. The CT is in an WUI with high value public amenities and subdivisions on 3 sides. Maintaining the existing fuel break

into the future would continue to provide a defensible position in efforts to suppress and limit the growth of a wildfire into neighboring subdivisions. Additional benefits include maintained fire control lines that provide improved access for emergency personnel, and defensible space around facilities in the event of wildfire or other types of emergency situations on CT such as extracting injured persons.

Both proposed fuel treatments could have a negative effect on forest health and fire/fuels management if the project plans change the vertical arrangement of the fuels characteristics by not removing the aerial felled trees and slash from the forest floor thus creating ground level fuel loading. This additional forest floor fuel loading would become an additional fuel burden if not properly scattered or removed. Taking aerial fuels and making them ground fuels. Fuels can range from 1,000-hour fuels to 1-hour fuels. One-hour fuels burn hot and fast, and the 1,000-hour fuels burn at a lower intensity but for longer duration. Improper removal of ground fuels post-hazard tree treatment would add to the current fuel burden on CT which could result in higher intensity ground fire. An increase to the fuel load in an area with an already high ground fuel load would increase the potential for high intensity wildfires which are harder to suppress. Where hazard tree densities are low and horizontal fuel loading is low, tree boles and limbs may be lopped and scattered if doing so does not create an additional fuel hazard. If scattering debris, limbs would be removed from tree boles. If fuels cannot be effectively dispersed, then a combination of scatter and disposal could be used to mitigate dense fuel accumulations. Where hazard tree densities are high, tree boles and limbs generated from hazard tree treatments should be removed in their entirety.

The negative effects of implementing the proposed action would be mitigated by requiring the project manager to consult with the AFO Resources & Fuels Staff when developing any future fuels project treatment plans as described in the proposed action in Section 2.2.5.

3.2.3.6 Campbell Airstrip Trailhead (CAT) Parking Area

There is currently 0.6-acre gravel parking lot that, under the Proposed Action, would be expanded and paved to a total size of approximately 2.2 acres. This would account for approximately 1.6 acres of new disturbance. The effect of this action on forest health and fire/fuels management would be a short-term increase in slash as the parking lot is being constructed. The proposed action would likely increase the number of visitors to the CAT parking area which has the potential to increase visitation and therefore, the probability of human caused ignitions. A design feature that would mitigate this effect is the proposed security lighting and cameras associated with new construction that could aid to deter illegal fire building and assist in any related fire investigations. Additionally, the risk of human caused wildfires can be addressed through wildfire prevention and mitigation awareness education and interpretation information that could be placed in kiosks at the entrances to CT.

3.2.3.7 Recreation Permit Authorizations

There would be no direct, indirect, or cumulative effects to forest health and fire/fuels management from the Recreation Permit Authorization component of the proposed action.

3.3 Resource Issue 3: Wildlife

3.3.1 Affected Environment

3.3.1.1 Location and Habitat Classification

The CT is located within the city limits of Anchorage, Alaska. The facility is comprised of 730 acres of relatively undeveloped forested land, administered by the United States Department of the Interior (USDI), Bureau of Land Management (BLM). The site includes Campbell Airstrip, Campbell Creek Science Center, and the administrative offices of the Bureau of Land Management's Anchorage Field Office. Habitats within Campbell Tract were classified and published in 2000 by the BLM.

Conducted in 2000, an inventory of 652 acres surveyed on CT indicated the overall forest habitat species makeup consists of 82.4% paper birch classes (537.2 acres) and specific results of all vegetation classes were (Guyer, 2000):

- 31.5% (206 acres) white spruce/paper birch forest.
- 23.5 % (153 acres) paper birch open forest.
- 12.8% (83 acres) paper birch closed forest.
- 12.6% (82 acres) spruce/moss forest.
- 8.6% (56 acres) paper birch/white spruce open forest.
- 6.0% (39 acres) paper birch woodland.
- 1.5% (10 acres) balsam poplar closed forest.
- 1.3% (8 acres) disturbed.
- 1.0% (6 acres) low shrub birch mixed scrub.
- 0.7% (5 acres) white spruce woodland, and.
- 0.6% (4 acres) balsam poplar/willow scrub.

These forested habitats at CT support the wildlife species described in the following sections. While the following sections do not address every species that may occupy or utilize habitat within CT, impacts to species that are more sensitive to human disturbances, or that could be considered dangerous to recreators were included here and analyzed.

3.3.1.2 Biodiversity

Numerous species of wildlife utilize habitat within Campbell Tract and the larger Anchorage Bowl area continuously, or seasonally, including migratory and residential birds, both large and small mammals, pollinators, and a species of amphibian. CT offers the unique ability to observe wildlife because it’s relatively undeveloped and is a nexus to the larger Chugach State Park and the Chugach National Forest. Wildlife viewing is a popular recreational use of the area and provides many opportunities for researchers and the public alike to enjoy sightings of migratory birds, salmon, and numerous mammalian species. Biodiversity is higher, relative to other parcels

of land in Anchorage because of semi-primitive, natural setting. A comprehensive list of wildlife species that inhabit the MOA can be found on the Alaska Department of Fish and Game's website (ADF&G (b), 2022).

3.3.1.3 Birds

Over 230 species of bird have been observed in Anchorage, 150 of which are likely to be yearly reoccurring visitors or residential (Scher, 1993). Several species of waterfowl with mallards (*Anas platyrhynchos*) being the most common utilize waterways within Campbell Tract. Many raptors utilize forested lands in, and adjacent to, Campbell Tract including several species of hawk, owl, falcon, and eagle. Persistent hawk species include the northern goshawk (*Accipiter gentilis*), red-tailed hawk (*Buteo jamaicensis alascensis*), and the sharp-shinned hawk (*Accipiter striatus*). While sightings are less frequent than other birds of prey, it is known that six species of owl can be found in the Anchorage Area with the great horned owl (*Bubo virginianus*) and the northern saw-whet owl (*Aegolius acadicus*) being the most persistent. Bald eagles (*Haliaeetus leucocephalus*) are common in Southcentral Alaska and can be regularly observed within the boundaries of Campbell Tract at any time of the year. Other common species that can commonly be found within Campbell Tract include multiple jay species, black-billed magpie (Pica hudsonia), and the common raven (*Corvus corax*).

3.3.1.4 Large Mammals

It is estimated that approximately 250 black bears (*Ursus americanus*), and over 60 brown bears (*Usus arctos*) live within the greater Anchorage area; many of which venture into urban and suburban areas to forage during their active periods (ADF&G (c) 2022). Campbell Tract attracts many bears because of its anadromous stream systems and relatively undeveloped landscape. Bears are monitored continuously throughout the active season with the use of trail cameras (Figure 1) and thermal imaging devices (Figure 2). Moose populations within the municipality of Anchorage have been high since the 1970s with approximately 300 year-long residents which increases to approximately 700-1000 individuals in the winter when weather and forage conditions drive moose to lower elevations (ADF&G (c) 2022). Moose (*Alces alces*) are commonly observed throughout Campbell Tract, and there have been many recorded conflicts between recreational users and moose, particularly partitioned females.

Figure 1. Brown Bear Observation Within Campbell Tract. BLM, 2021.

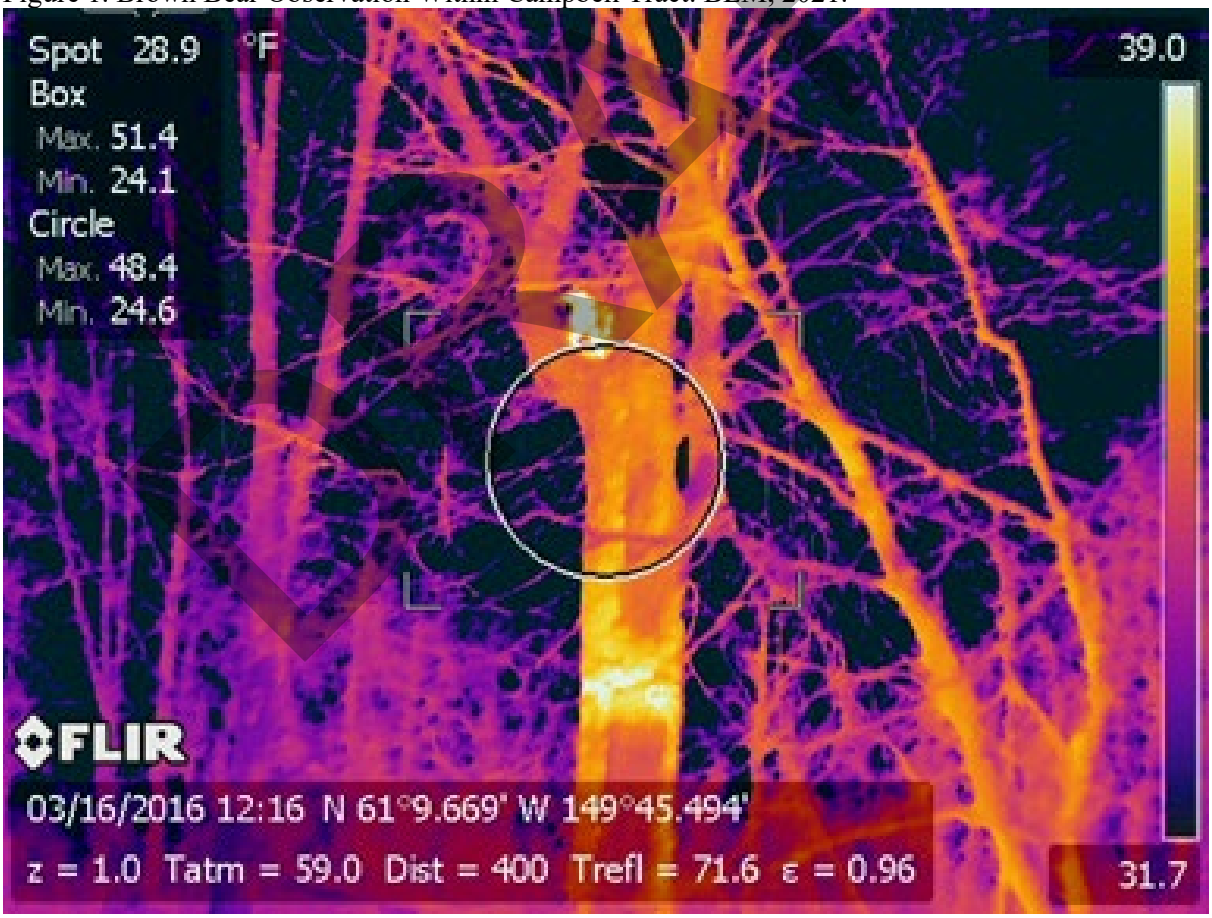

Figure 2. Black Bear perched above apparent den near Campbell Tract. Craig Perham; BLM, 2016.

3.3.1.5 Small Mammals

There are several small mammal species that inhabit Campbell Tract and the surrounding area including wolverine (*Gulo gulo*), coyote (*Canis latrans*), lynx (*Lynx canadensis*), snowshoe hare (*Lepus americanus*), red fox (*Vulpes vulpes*), mink (*Mustela vison*), short-tailed weasel (*Mustela erminea*), porcupine (*Erethizon dorsatum*), red squirrels (*Tamiasciurus hudsonicus*), northern flying squirrels (*Glaucomys sabrinus*), and little brown bat (*Myotis lucifugus*). There are also several species of mice, shrew, and vole present in the Campbell Tract area.

3.3.1.6 Amphibians

The wood frog (*Rana sylvatica*) is the only known species of amphibian that may be present in the project area. Typically found in wooded areas, the frogs will lay their eggs in ephemeral pools, and spend winters in a state of cryptobiosis (frozen) in leaf litter on the forest floor.

3.3.1.7 Pollinators

There is less information available on Alaska's pollinators, but recent conservation concerns have fostered monitoring efforts that are ongoing to better understand the species richness and species of concern in Alaska. Currently, there are 105 bee species known to occur in the state including 22 species of bumble bee and 50 species of solitary bee; as well as; 80 species of butterfly (BLM, 2021).

3.3.2 Environmental Effects—No Action Alternative

3.3.2.1 Year-Round Single-Track Trail

The No Action Alternative would have no new impacts to wildlife resources within the project area. The 1- mile of new trail and associated ½ acre of habitat disturbance would not occur and human and vegetation/habitat disturbances to wildlife would likely remain at their current levels. None of the individual activities proposed under the Proposed Action would be implemented.

3.3.2.2 Trail System Maintenance

The No Action Alternative would have no new impacts to wildlife resources within the project area. Routine trail system maintenance would continue and human and vegetation/habitat disturbances to wildlife would likely remain at their current levels. None of the individual activities proposed under the Proposed Action would be implemented.

3.3.2.3 E-Bike Types and Authorized Use Areas

The No Action Alternative would have no new impacts to wildlife resources within the project area. Authorizing class one E-bike use would not occur and human and vegetation/habitat disturbances to wildlife would likely remain at their current levels. None of the individual activities proposed under the Proposed Action would be implemented.

3.3.2.4 Winter Only Single-Track Trails

The No Action Alternative would have no new impacts to wildlife resources within the project area. Existing unmanaged winter single-track trail use would continue and human and vegetation/habitat disturbances to wildlife would likely remain at their current levels. None of the individual activities proposed under the Proposed Action would be implemented.

3.3.2.5 Fuels Management Treatments

Under the No Action Alternative, the Hazard Tree Removal treatment within the identified 100-foot buffers on 277 acres of CT would not occur and would therefore have no new impacts to wildlife resources within the project area. Human and vegetation/habitat disturbances to wildlife would likely remain at their current levels. None of the individual activities proposed under the Proposed Action would be implemented.

Under the No Action Alternative, BLM would not maintain the existing 33-acre shaded fuel break (Appendix E: Map #7) to remove all coniferous vegetation and retain hardwoods. Without maintenance, the existing fuel break would eventually no longer function as a future wildfire control line and would revert to natural regeneration of vegetation. The effects of no action on the wildlife habitat and include the potential for fire disturbance due to overgrowth of fuels and a catastrophic fire that could completely alter current suitable habitat.

3.3.2.6 Campbell Airstrip Trailhead (CAT) Parking Area

The No Action Alternative would not increase the size of the existing parking area by 1.6 acres and pave a previously porous surface having no new impacts to wildlife resources within the project area. Human and vegetation/habitat disturbances to wildlife would likely remain at their current levels. None of the individual activities proposed under the Proposed Action would be implemented.

3.3.2.7 Recreation Permit Authorizations

Under the No Action Alternative, BLM continue to manage commercial and competitive SRP activities and events per their existing protocol and therefore have no new impacts to wildlife resources within the project area. Human and vegetation/habitat disturbances to wildlife would likely remain at their current levels. None of the individual activities proposed under the Proposed Action would be implemented.

3.3.2.8 Reasonably Foreseeable Actions Effects

The No Action Alternative would have no new impacts to wildlife resources within the project area. Human and vegetation/habitat disturbances to wildlife would likely remain at their current levels. None of the individual activities proposed under the Proposed Action would be implemented.

3.3.3 Environmental Effects— Proposed Actions & Future Actions

What are the potential impacts to wildlife, and potential wildlife and/or human conflicts that may arise from increased trail milage, ground disturbing activities associated with the proposed action, and authorizing new forms of recreational transport?

3.3.3.1 Year-Round Single-Track Trail

3.3.3.1.1 Birds

3.3.3.1.1.1 Migratory Birds

It is most likely that birds will be present throughout the construction, use, and maintenance of the proposed trail. Potential disturbances can be characterized as both direct and indirect. Direct disturbance to birds would be subject to construction timeframes and vegetation disturbance of building the trail. Vegetation removal (approximately ½ acre) would result in a permanent loss of habitat given the trail's continued maintenance. This impact would be minor given the relatively small area of the new disturbance in relation to suitable habitat adjacent to the proposed trail. While limited, it is also possible that vegetation removal could result in the destruction of active bird nests in the project area if timing of the trail construction overlaps with the breeding season. Recreational activities associated with the trail (increased human presence, noise, etc.) may adversely affect nesting and foraging birds. Hickman (1990) found that nature trails alter diversity and abundance of forest songbirds; in which, edge habitat preferring birds such as jays and robins benefit from the disturbance while interior forest birds are negatively impacted by such trails. It is likely that birds will avoid building nests near actively used trails. While habitat patch size is a key factor in densities and productivity of passerines, the proximity and level of recreational use is more likely to determine abundance and density (Friesen et al., 1995).

To minimize effects to migratory birds, the best management practices (BMPs), stipulations, and design features from Appendix H would be used. No additional specific mitigation measures are recommended.

3.3.3.1.1.2 Raptors

Birds of prey are common throughout Southcentral Alaska and are susceptible to disturbance caused by outdoor recreators. Knight and Skagen (1988) found that key impacts to raptors by recreational activity included altering raptor distribution, disrupting nesting activities of breeding pairs, increasing nest abandonment leading to decreased productivity, and altering foraging and hunting patterns. Many species of raptor utilize Campbell Tract as nesting and foraging habitat including several species of hawk, owl, eagle, and falcon. Some raptors utilize habitat throughout the year, while some migrate seasonally. It is likely that bald eagles will relocate to a more remote areas if human disturbance increases (Steidl and Anthony, 1996). Brown and Stevens (1997) found that there was a 2200% increase in eagles observed in river reaches along the Colorado River of low human use, as compared to areas with high use.

To minimize effects to birds of prey, the best management practices (BMPs), stipulations, and design features from Appendix H would be used. No additional specific mitigation measures are recommended.

3.3.3.1.2 Large Mammals

3.3.3.1.2.1 Bears

Adding a new all-year trail in a previously undisturbed area may increase the potential for interactions between bears and outdoor recreators. Campbell Tract is occupied by both brown bear (Ursus arctos) and black bear (Urus americanus) during active portions of the year due to its limited development, adequate habitat characteristics, and anadromous stream networks. Incidents have been limited, but not uncommon between recreationalist and bears within the proposed project area. Bears might also avoid the trail and the associated increase of disturbance, effectively displacing bears from foraging and resting areas. Even though bears can become habituated to human disturbance there is still a correlation between the number of recreationalists and black bears; in which, an increase in the number of recreational users in an area can cause more habituated bears to avoid that area (Chi and Gilbert, 1999). The construction of the trail accounts for an approximate loss of ½ acres of potential suitable habitat. Bear's responses to disturbance can be highly individualistic and may vary based on the individual's experience and habituation to human disturbance, food availability, and other environmental conditions.

To minimize effects to black and brown bears, the best management practices (BMPs), stipulations, and design features from Appendix H would be used. No additional specific mitigation measures are recommended.

3.3.3.1.2.2 Moose

Moose would most likely avoid the area during construction and equipment use during the construction of the new trail but would be limited spatially and temporally. Ferguson and Keith (1982) found that the disturbance caused by heavily used cross country skiing trails directly influenced the distribution of moose in the area in winter months; wherein, they found a 60% reduction in moose utilization when compared to lightly used trails. There has been serval documented negative interactions between outdoor recreationalist and moose in the Anchorage area. Females can become particularly aggressive once they become partitioned. Females will typically give birth in late May and have their calves with them for up to a year. There is the potential for an increase in encounters with moose as trail networks expand into previously undisturbed areas in the winter as moose move into lower areas in winter months.

To minimize effects to moose, the best management practices (BMPs), stipulations, and design features from Appendix H would be used. No additional specific mitigation measures are recommended. A beneficial effect of the proposed action on moose at CT may include more consolidated recreator usage potentially decreasing the amount of negative, or dangerous encounters.

3.3.3.1.3 Small Mammals

The construction of the trail would lead to an approximate loss of ½ acre of small mammal habitat permanently. This loss of habitat is not significant relative to the amount of suitable habitat within, and adjacent to, the Campbell Tract. It is likely that small mammals would avoid foraging and utilizing habitat near the proposed trail as the presence of people increases.

Avoidance from the trail is likely to occur after construction is completed during the continued use of the trail by recreationalists, but this is limited in scope with suitable habitat adjacent to the project area. Noise from vehicle traffic and crews on the ground during implementation could potentially displace or disturb small mammals in the area.

To minimize effects to small mammals, the best management practices (BMPs), stipulations, and design features from Appendix H would be used. No additional specific mitigation measures are recommended.

3.3.3.1.4 Pollinators

Construction and use of a new trail are not likely to significantly impact pollinators within the project area. This activity associated with Proposed Action would result in a permanent loss of ½ acre of suitable habitat, but there is suitable habitat adjacent to the proposed linear feature. Impacts are limited spatially, but proactive monitoring actions and mitigations can further limit these impacts.

To minimize effects to pollinators, the best management practices (BMPs), stipulations, and design features from Appendix H would be used. No additional specific mitigation measures are recommended.

3.3.3.1.5 Amphibians

R. sylvatica will typically spend winters on the forest floor under leaf litter and other debris. There is the potential that activities associated with the Proposed Action, including building and use of trail, could negatively affect density and individuals within CT. The use of equipment and foot traffic associated with building the trail could result in trampling and mortality of frogs, and the trail represents a permanent loss of habitat. These impacts would not be considered significant. *R. sylvatica* has a wide distribution within Alaska, and there is plentiful suitable habitat adjacent to the proposed disturbance. It is not anticipated that any direct mortality would result in a significant reduction in density or distribution.

No additional specific mitigation measures are recommended.

3.3.3.2 Trail System Maintenance

Trail system maintenance would include the use of equipment to improve trail conditions including grooming activities, resurfacing trails, trimming overgrown vegetation on trail features, and removing hazardous trees that pose a risk to outdoor recreators.

Similar noise and habitat loss impacts to wildlife and their habitats are analyzed in 3.3.3.1 Year-Round Single-Track Trail. Most previously discussed impacts would be limited in scope (areas directly adjacent to the trails) and would not be significant given the suitable habitat adjacent to the proposed activities.

Additional impacts to wildlife by authorizing more extensive trail maintenance may include the loss of special and significant habitat features such as standing dead trees (snags). Snags are often used as refuge by a suite of wildlife species including cavity nesting birds, multiple rodent species, and species that forage on insects found within the bark of dead and dying trees.

To minimize effects to wildlife, the best management practices (BMPs), stipulations, and design features from Appendix H would be used. No additional specific mitigation measures are recommended.

3.3.3.3 E-Bike Types and Authorized Use Areas

Refer to 3.3.3.1 Year-Round Single-Track Trail. Including the use of a new recreational activity would most likely result in an increase in visitor use, leading to a greater displacement and disturbance of wildlife than currently attributed to Campbell Tract activities. Measures to mitigate effects to wildlife are covered in the section 3.4.3.3 and Appendix H. No additional specific mitigation measures are recommended.

3.3.3.4 Winter Only Single-Track Trails

Refer to 3.3.3.1 Year-Round Single-Track. This action would authorize and manage seasonal development of the existing unmanaged winter only single-track trails in a designated 30-foot-wide corridor for winter over snow recreation only. The maintenance associated with this action would be an addition of approximate 8.73 acres that disturbance could occur in. This vegetation disturbance is not likely to affect migratory birds because of their absence during the winter months, but cavity nesting residential birds and other wildlife species, such as owls, may be negatively impacted by the removal of snags and other refuge, including food caches.

As previously discussed, moose densities within CT and the greater MOA area increase significantly during the winter months, and it is likely that there would be an increase in potentially dangerous interactions between moose and outdoor recreators. It is unlikely that there would be interactions between bears and outdoor recreators, as they are denned and in a state of torpor, but there is a possibility of disturbing denning bears. A bear's individual response to disturbance varies with age, sex, and acclimation to human disturbance, but the most impactful response is den abandonment, which can cause the bear to incur a great energetic cost, and a higher cub mortality for partitioned females (John D. C. Linnell et al., 2000).

To minimize effects to wildlife, the best management practices (BMPs), stipulations, and design features from Appendix H would be used. No additional specific mitigation measures are recommended. The beneficial effects of the proposed action on wildlife, specifically large mammals, at CT include the consolidation of currently dispersed winter recreational activities. This would potentially decrease the amount of negative or dangerous encounters with wildlife.

3.3.3.5 Fuels Management Treatments

3.3.3.5.1 Hazard Tree Removal

Hazard trees would be removed along 18 miles of roads, trails, parking areas, facilities, and ingress/egress routes up to 277 acres. Approximately 31.8 acres of the 277 total acres would be maintaining a previously disturbed fuel break. Hazard trees would be felled if they meet the criteria outlined in section 2.5.5 and retained if they meet the retention criteria that includes 2-5 wildlife retention trees per/acre.

The effects of the proposed action on wildlife at CT include alteration of existing forage and vegetation structure, loss of key habitat features including snags, avoidance of the area due to noise and presence during implementation, and increased fragmentation of habitat. The effects are likely to be permanent. The future goal would be to continue removing hazard trees. The effects would be long term given the time it would take for regeneration of spruce and the competing need to remove fuel. The effects would be attributed to potentially 277 acres of CT. This would be approximately 38% of the total surface acres of CT.

Refer to sections 3.3.3.1, 3.3.3.2, and 3.3.3.4. Like other vegetation disturbing activities associated with the proposed action, this activity would result in the alteration of suitable habitat and key habitat features, would increase habitat fragmentation, may alter the distribution and densities of wildlife, and potentially impact wildlife species that are sensitive to human disturbance. These potential impacts are not significant in nature considering the selective process in tree removal. While the total acreage proposed for this project under the proposed action is expansive, the actual disturbance associated with removing hazard trees will be significantly less than the total acreage. Climate change has accelerated the rate at which trees become infested with the spruce bark beetle (*Dendroctonus rufipennis*), and there has been a substantial increase in the number of dead standing trees in Southcentral Alaska. Removal of these trees would aid in the succession of high-value forage vegetation species.

To minimize effects, the best management practices (BMPs), stipulations, and design features from Appendix H would be used. No additional specific mitigation measures are recommended.

3.3.3.5.2 Maintenance of Existing Fuel Break

The are no anticipated significant effects of this project under the proposed action on wildlife at CT. Any effects would be temporary, as the project is to continue routine maintenance in an area of existing disturbance. The effects would be limited to 33 acres of CT. The effects would be short term in nature, as wildlife would avoid the area during implementation and the use of equipment. Implementing this project outside of the recommended migratory bird nesting window will further decrease the likelihood of impacting wildlife species. To minimize effects, the best management practices (BMPs), stipulations, and design features from Appendix H would be used. To mitigate the effect of over browse and lack of successional vegetation recovery, enclosure fencing could be used to reduce pressure from moose browsing hardwoods, and aid in the recovery. Aside from fencing, no additional specific mitigation measures are recommended.

3.3.3.6 Campbell Airstrip Trailhead (CAT) Parking Area

There is currently 0.6-acre gravel parking lot that, under the Proposed Action, would be expanded and paved to a total size of approximately 2.2 acres. This would account for approximately 1.6 acres of new disturbance. This disturbance would result in a permanent loss of suitable habitat and further fragment habitat within CT. Vegetation removal associated with construction has the potential to disturb wildlife in, and adjacent too, the disturbance footprint due to noise, an anticipated increase in human presence, and new light pollution.

Like other vegetation disturbing activities associated with the proposed action, this activity would result in the permanent loss of suitable habitat and key habitat features, would increase

habitat fragmentation, may alter the distribution and densities of wildlife, and potentially impact wildlife species that are sensitive to human disturbance, light pollution, and noise pollution.

To minimize the wildlife effects from light pollution specifically, downward facing lights on motion activated timers would be used. To minimize effects to wildlife, the best management practices (BMPs), stipulations, and design features from Appendix H would be used.

In addition to this proposal to develop the CAT Parking Area, an additional future project to construct a parking lot at the CCSC is under development. This future foreseeable action and the cumulative effect to wildlife is covered in the next section.

To mitigate the permanent loss of habitat, consideration of the need and feasibility of these parking lots in relation to each other and the impacts to other resources should be taken. Using these considerations to resize the disturbance footprint could be used to reduce the long-term effect.

3.3.3.6.1 Past and Reasonably Foreseeable Actions

A past 2016 Environmental Analysis (EA) analyzed a proposal to realign the BLM Road with East 68th Avenue and expand parking at the Smokejumper Trailhead. The construction has experienced delays and is now slated for construction this Summer, 2022. The BLM Road - East 68th road realignment and associated Smokejumper Trailhead improvement would create 3 new acres of surface disturbance and vegetation removal and 20 new parking spaces.

The future proposed action to develop and increase the available parking at CAT (Section 2.2.6) represents a potential future increase in 1.6 new acres of surface disturbance and vegetation removal and 95 new parking spaces. This CAT project is proposed for future construction and the acreages and parking spaces at this time are conceptual predictions to provide for current analysis until the snow free season allows more site inventory to occur and a further refined future action.

The CCSC and associated programs, as a whole, were an issue identified but eliminated from further detailed analysis for reasons covered in Section 1.8.8. A future project under recent development is a proposal to develop and increase available parking at the CCSC. The alternatives are still under development but one proposed draft alternative with the largest footprint would create 2.25 new acres of surface disturbance and vegetation removal and approximately 60 new parking spaces.

While the CCSC alternatives are still under development, cumulatively, these three construction projects have the potential to account for a permanent loss of approximately 6.85 acres of undisturbed suitable habitat and an increase in 175 parking spaces. The proposed CAT project and CCSC projects are still in the conceptual phases and would likely change size.

To mitigate the permanent loss of habitat, consideration of the need and feasibility of these parking lots in relation to each other, the potential to decrease the acres impacted, utilize already existing disturbed areas, and decrease newly disturbed areas needs to be considered. Using these considerations to resize any new disturbance footprint and/or utilize already disturbed areas could be used to reduce the long-term effect.

3.3.3.7 Recreation Permit Authorizations

This activity, under the Proposed Action, would not significantly impact the density, distribution, or abundance of wildlife species found in CT. The ability to better regulate and set restrictions on group size and activity types through the SRP application process may benefit wildlife by decreasing the probability of negative encounters with potentially dangerous wildlife.

Aside from incorporating the best management practices (BMPs), stipulations, and design features from Appendix H, no additional specific mitigation measures are recommended for wildlife.

3.4 Resource Issue 4: Historical, Cultural, & Paleontological Resources

3.4.1 Affected Environment

The BLM CT is within the Southcentral region and closest to one major cultural group, the Athabaskan speaking Dena'ina in the Cook Inlet area There are approximately 5,250 known cultural resource sites in the entire Southcentral region, which include both prehistoric and historic resources (ADNR 2005m). This likely represents a small percentage of cultural resources in the region, as the entire region has not been inventoried for cultural resources.

The Alaska Heritage Resources Survey, previous CT project files, and AFO files, were consulted for cultural resources that could be affected within the 730-acre CT. There are no known prehistoric or ethnographic sites on Campbell Tract. Based on other sites in the Anchorage area, and on previous consultation with the Native Village of Eklutna for other projects, the most likely location for these sites would be along Campbell Creek, very little of which is located on BLM lands. There are three documented historic cultural resources located within the project Area of Potential Effect (APE), which includes all of Campbell Tract. The project area includes ANC-01385, the collection of World War Two artifacts and features on the Campbell Tract. While most known WWII buildings were concentrated in the northeast corner of Campbell Tract, near the northeast end of the airstrip, WWII artifacts and historic earthworks have been found all over the CT. ANC-01385 has been determined *eligible* for the National Register of Historic Places (NRHP). The APE also includes ANC-00767, the Campbell Airstrip, which is a contributing element of ANC-01385. The APE also includes ANC-4319, the CTF Administration Building. This building has previously been determined *not eligible* for inclusion in the NRHP, and the building was demolished in the summer of 2017.

3.4.2 Environmental Effects—No Action Alternative

Under the No Action Alternative, impacts to cultural resources under Section 106 of the National Historic Preservation Act (NHPA) would be reviewed on a case-by-case basis and are included for the seven components of the proposed action that follow. Additionally, because a cultural resource protection and interpretation plan is required under the CT 1988 Management Plan, this plan should still be developed under the no action alternative.

3.4.2.1 Year-Round Single-Track Trail

Under the No Action Alternative, a new single-track trail would not be built. Because no ground disturbance would occur, this would have no potential to affect cultural resources.

3.4.2.2 Trail System Maintenance

Under the No Action Alternative, trail maintenance would not occur. Because no ground disturbance would occur, this would have no potential to affect cultural resources.

3.4.2.3 E-Bike Types and Authorized Use Areas

Not authorizing E-bikes or E-bike Use Areas would have no effect on cultural resources.

3.4.2.4 Winter Only Single-Track Trails

Under the No Action Alternative, existing unmanaged winter only single-track trails would continue to receive existing use by civilian recreation users with no coordination with land managers. Because no ground disturbance would occur, this would have no potential to affect cultural resources.

3.4.2.5 Fuels Management Treatments

Under the No Action Alternative, the proposed fuels management activities would not occur. Because no off-trail or ground disturbing activities would occur, this would have no potential to affect cultural resources.

3.4.2.6 Campbell Airstrip Trailhead (CAT) Parking Area

Under the No Action Alternative, the CAT parking area would not be expanded. Because no ground disturbance would occur, this would have no potential to affect cultural resources.

3.4.2.7 Recreation Permit Authorizations

Under the No Action Alternative BLM would continue to utilize the CT 1988 Management Plan for guidance on issuing or denying SRP's. SRP requests would be subject to a review of the proposal and compliance with the objectives of the CT 1988 Management Plan to address impacts to recreational opportunities and government facilities.

3.4.3 Environmental Effects— Proposed Actions & Future Actions

What are the potential impacts to cultural resources as a result of the proposed action? The proposed action is located within the boundaries of ANC-1385, which has been determined eligible for inclusion in the National Register of historic places.

3.4.3.1 Year-Round Single-Track Trail

The effect of expanding one mile of the non-snow season trail network and associated half acre of ground disturbance increases has the potential for cumulative effects to the WWII historic district, ANC-1385. While the section 106 process would still be completed for this action, a continued increase to the trail milage over time would increase the cumulative effects to ANC-1385. To minimize effects, the best management practices (BMPs) and stipulations from Appendix H would be used. If the BLM ensures that no features of ANC-1385 are impacted by the proposed single-track trail, this action should not have a significant impact on cultural resources. Due to snow cover, further NEPA and field surveys would be conducted to ensure no impacts.

3.4.3.2 Trail System Maintenance

Because this action would be limited to existing trails, including any new trails constructed in the future, this has low potential for significant impacts to cultural resources.

3.4.3.3 E-Bike Types and Authorized Use Areas

If E-bike use is limited to existing trails, including future trails not yet constructed, this action would have low potential for significant impacts to cultural resources. The small amount of noise generated by E-bikes is unlikely to cause an adverse effect to ANC-1385.

3.4.3.4 Winter Only Single-Track Trails

The effect from the proposal to authorize and manage seasonal development of the existing unmanaged winter only single-track trails in designated corridors could result in a slight increase in winter trail use above existing levels. However, there would be no effect upon cultural resources as these trails are winter use only and not ground disturbing. The increase in winter trail use could have the potential for cumulative effects to the WWII historic district, ANC-1385. The increase in familiarity of these remote areas from outdoor recreators could have cumulative negative effects to the WWII historic district, ANC-1385. While the section 106 process would still be completed for this, and all future actions, an updated inventory of all WWII historic sites on CT would facilitate a more thorough understanding of cumulative effects.

3.4.3.5 Fuels Management Treatments

The proposed hazard tree removal action to fell and remove hazard trees within the identified 277-acres of buffers indicated in section 2.2.5.1. has a low potential for significant impacts to

cultural resources. If use of heavy equipment is minimized, there is little potential for adverse effects to ANC-1385.

The proposed maintenance of the existing 3-acre fuel break on approximately 33 acres as proposed in section 2.2.5.2. has a low potential for negative impacts to cultural resources as the project area has been previously disturbed since 2001 for the same proposed action. If use of heavy equipment is minimized, there is little potential for adverse effects to ANC-1385.

3.4.3.6 Campbell Airstrip Trailhead (CAT) Parking Area

The area around the existing parking lot trailhead is already partially disturbed. A cultural resource survey ahead of any expansion, and flexibility in parking lot design, would ensure that no artifacts or features associated with ANC-1385 are impacted by the expansion.

3.4.3.7 Recreation Permit Authorizations

To minimize impacts to cultural resources, it is recommended that the BLM only permit future events that are limited to existing trails. Permitting activities that go off existing trails has the potential to impact both artifacts and features associated with ANC-1385. If the BLM decides to permit off-trail activities, a cultural resource monitoring plan should be put in place with specific stipulations and authorized areas of use. These additional steps will help to protect the historic resources and landscape of CT and ensure there are no significant impacts from these actions.

3.5 Resource Issue 5: Vegetation

3.5.1 Affected Environment

The BLM CT proposed project area is within the Cook Inlet Basin ecoregion, characterized by interior and coastal boreal forests. Open and closed forests of Alaska paper birch (*Betula neoalaskana*), white spruce (*Picea glauca*), black spruce (*Picea mariana*), and Balsam poplar (*Populus balsamifera*) occur in a mosaic pattern and dominate the recreational setting. The majority of CT, 82%, is composed of vegetation communities that include Alaska paper birch (Guyer, 2000). The understory is often dominated by willow (*Salix* ssp.) and alder (*Alnus crispa*), but also highbush cranberry (*Viburnum edule*), wild rose (*Rosa acicularis*), and ericaceous shrubs. The soil surface is usually covered by either mosses or leaf litter and mulch.

BLM Sensitive and Watch list plant species have not been found on CT. However, three species have recently been found on CT that ACCS considers rare and maintains updated and curated species information for. These species are: Eriophorum viridicarinatum, Glyceria striata, and Geum aleppicum ssp. strictum (Fulkerson, 2021). This rare plant study found Geum aleppicum ssp. strictum to thrive and grow abundantly along trails. The continual use and maintenance (trampling and mowing) appears to have little to no impact on its growth and reproductive success.

A comprehensive re-survey of non-native invasive plant species was conducted in 2018 by the University of Alaska Center for Conservation Science (ACCS). They documented 27 non-native species growing within CT, seven of which are considered high priority species (Konig and

Steer, 2018). High priority species are those with a high invasiveness ranking and therefore have the potential to degrade native plant community structure, composition, and ecological function and are listed in Table 10. These species have received treatment annually since 2015.

Table 10: List of high priority non-native invasive plant species found within CT.

Invasive Species	**Scientific Name**	**Invasiveness Ranking**	**Invasiveness Score**
Reed canary grass	*Phalaris arundinacea*	Extremely Invasive	83
White sweet clover	*Melilotus albus*	Extremely Invasive	81
Orange hawkweed	*Hieracium aurantiacum*	Extremely Invasive	79
Creeping thistle	*Cirsium arvense*	Extremely Invasive	76
Bird cherry/Chokecherry	*Prunus padus*	Highly Invasive	74
Bird vetch	*Vicia cracca*	Highly Invasive	73
Yellow toadflax	*Linaria vulgaris*	Moderately Invasive	69

Visitors to CT are vectors that can introduce and spread invasive species. Plant propagules (seeds and plant fragments) are brought into CT on visitor's boots, bicycles, dog fur, and possibly other equipment. BLM has a robust invasive plant management program to treat five high priority species that have the potential to cause ecological harm. In addition to the vector of recreational visitors, internal BLM operations that bring in fill material and topsoil from external sources have been shown to introduce non-native invasive species. These elements currently occur on CT and are mitigated by the invasive plant program that BLM operates, which involves regular monitoring and annual treatment.

Trends in recreation visitation on CT have shown a ten-fold increase between 2003 and 2022 and all indications point to continued growth resulting in ever increasing impacts on CT's natural environment and vegetation. Campbell Tract became more visible and accessible with the completion of Elmore Road in 2010. It is likely to become even more accessible upon construction of the planned realignment of 68th Avenue with the main CTF entrance at BLM Road due to a planned increase in parking availability. Increased visitation to CT may result in the expansion of existing invasive plant vectors as well as the creation of additional invasive plant vectors as rapid changes in recreation technology and use patterns occur.

Other influential trends that are likely to modify the existing vegetation composition include diseases and insect pests often associated with a changing climate. Existing stands of aspen, paper birch, and black cottonwood tend to be aging and decadent and healthy replacement of

these species is essentially non-existent due to extreme moose browsing pressure. In addition, rapidly expanding infestations of Spruce Bark beetle are resulting in the death of an ever-increasing number of mature white and black spruce on CT and the proliferation of less desirable understory browse species including alder.

3.5.2 Environmental Effects—No Action Alternative

Under the no action alternative, the seven components of the proposed action would not occur and current vegetation maintenance activities along trails would continue without new ground disturbing activities that would affect vegetation. It is, therefore, unlikely that there would be any additional impacts to vegetation or rare plants from the no action alternative.

3.5.2.1 Year-Round Single-Track Trail

This one-mile trail and associated half acre of disturbance would not be built under the No Action Alternative resulting in no additional vegetation removal or ground disturbance. The introduction of invasive plants into this portion of the forest from construction activities would not occur and the on-going vector for invasive plant introduction from recreation activities on this new trail would not be created.

3.5.2.2 Trail System Maintenance

Under the No Action Alternative, maintenance of existing trails would continue per current levels and no impacts to vegetation resources would result.

3.5.2.3 E-Bike Types and Authorized Use Areas

Under the No Action Alternative, E-bikes would not be authorized and no new impacts to vegetation resources would occur.

3.5.2.4 Winter Only Single-Track Trails

Under the No Action Alternative, existing unmanaged winter only single-track trails would continue to receive existing use by civilian recreation users with no coordination with land managers. New unmanaged winter only single-track trails could be established in areas of sensitive habitat, unnecessary vegetation may be removed, trail corridors would not be established, and these trails may have the potential to evolve into year-round social trails with increased potential to expand the spread of invasive species.

3.5.2.5 Fuels Management Treatments

Under the No Action Alternative, the hazard tree removal would not occur as proposed and individual beetle killed trees would be removed on a case-by-case basis as they fall across trails and roads or are recognized as immediate hazards and removed one at a time. Increased social

trailing would occur as users detour off-trail around fallen trees prior to land manager discovery and removal, resulting in increased impacts to trailside soils and vegetation. An increased likelihood of user injuries from the unexpected falling of standing dead trees would continue to exist, especially during high wind and heavy snowfall events.

Under the No Action Alternative, the proposed maintenance of the existing shaded fuel break (Appendix E: Map #7) would not occur. Future maintenance of the existing shaded fuel break would require further NEPA analysis. Without maintenance, the existing fuel break would eventually no longer function as a future control line and would not provide a defensible position for emergency responders. This fuel break represents a 33-acre area that would be managed to include hardwood stands of aspen, paper birch, and black cottonwood which tend to be aging and decadent and healthy replacement of these species is essentially non-existent due to extreme moose browsing pressure. This proposed action would remove the less desirable understory browse alders and conifers and allow the mature hardwoods to flourish which is rare on CT due to moose browse.

3.5.2.6 Campbell Airstrip Trailhead (CAT) Parking Area

Under the No Action Alternative, the CAT parking area would not expand or be paved resulting in less ground disturbance and less vegetation clearing in the vicinity of the current CAT. This would also result in less opportunity for invasive plants to be introduced and the retention of slightly more natural habitat.

3.5.2.7 Recreation Permit Authorizations

Under the No Action Alternative BLM would continue to utilize the CT 1988 Management Plan for guidance on issuing or denying SRP's. SRP requests would be subject to a review of the proposal and compliance with the objectives of the CT 1988 Management Plan to address impacts to recreational opportunities and government facilities. There would be no potential to affect vegetation resources due to existing permit operations routinely including stipulations that protect existing vegetation and prevent the introduction of NNIS.

3.5.3 Environmental Effects— Proposed Actions & Future Actions

What impacts would the proposed action have on vegetation and BLM sensitive plant species? What is the potential for introduction and spread of non-native invasive species as a result of these activities?

3.5.3.1 Year-Round Single-Track Trail

Creation of a new year-round single-track trail approximately 1 mile long and 2-3 ft wide with a half-acre of disturbance would result in permanent removal of no more than 0.36 acres of vegetation. Adjacent areas, up to 0.5 acres, would be needed for staging equipment and the associated trail construction crew work area. Vegetation in these areas would be temporarily trampled and vegetation would likely recover within three years after construction.

During construction of the trail, there is potential to introduce new non-native species or spread existing infestations. Materials and construction equipment often harbor seed or other plant

material that can result in a new introduction. Using gravel obtained from a certified weed-free sources and ensuring that equipment is cleaned before bringing onto the project site would mitigate this impact. Appendix H describes standard procedures to mitigate invasive species that BLM would follow during all internal operations. When final alignment of the trail is determined, an analysis of existing infestations in or near the project area would be required. Site-specific mitigations to reduce the potential for spread would be developed at that time.

3.5.3.2 Trail System Maintenance

The effects of routine trail system maintenance on vegetation and the potential for introduction of NNIS would be minimal as they would include minimal removal of vegetation and mostly limb existing vegetation for improved trail sight distances. To minimize the introduction of NNIS, cleaning of equipment before and after project activities, as indicated in Appendix H, would be followed. No additional specific mitigation measures are recommended.

3.5.3.3 E-Bike Types and Authorized Use Areas

The authorized use of E-bikes on existing trails would have no impact to vegetation greater than the no action alternative. All types of bikes have the potential to be a vector that introduces or spreads invasive species, so the use of E-bikes would not be any greater of an impact than the no action alternative.

3.5.3.4 Winter Only Single-Track Trails

Since these trails are only used when there is at least 6 inches of snow on the ground, it is unlikely that vegetation and rare species would be impacted. It's possible that over time slight depressions and alterations in vegetations may result due to snow and soil compaction and altered drainage and thermal regime. This affect is likely to be minimal, based on observation of other existing unmanaged winter only single-track trails in the vicinity, especially since the existing unmanaged winter only single-track trails on CT occur in areas that can't support summer travel.

Bikes can still spread invasive species at any time of the year if clumps of mud or other debris are attached to them. An annual survey of these trails, and any treatment deemed appropriate, would mitigate the potential for large infestations to establish. Since this trail does not require any formal construction or fill material, there is no potential for the introduction of new species or spread of existing species from construction activities.

3.5.3.5 Fuels Management Treatments

Removal of hazard trees along CT trails and maintenance of the existing fuel break treatments would involve cutting and removal of vegetation. These actions however do not involve the clearing of all vegetation in the identified areas, rather, only the removal of vegetation that fits criteria identified in proposed action sections 2.2.5.1.1 and 2.2.5.2. Specific vegetation removal of trees that meet the identified criteria in the hazard tree buffers would occur in a 100-foot buffer from centerline of trails and 100-feet from the edges of roadways, parking lots, and other

administrative areas totaling 277 acres. Future maintenance of the existing fuel break areas would occur on approximately 33 acres to periodically thin vegetation to the fuel treatment prescription. These actions would not occur in areas where the rare plant species *Glyceria striata* and *Eriophorum viridicarinatum* have been found. Although *Geum aleppicum* ssp. *strictum* is found growing along almost all of CT's trails, maintenance (trampling and mowing) appears to have little to no impact on its growth and reproductive success.

Like other actions in this plan, equipment of all types can harbor seed or other plant material that can result in a new invasive species introduction. Proper cleaning of equipment before and after project activities, as indicated in Appendix H, would mitigate this potential. No additional specific mitigation measures are recommended.

3.5.3.6 Campbell Airstrip Trailhead (CAT) Parking Area

There are currently .6 acres of existing disturbed vegetation at the gravel surface CAT. The proposal would permanently remove all vegetation on another 1.6 acres to construct and pave the new CAT Parking Area. *Glyceria striata* and *Geum aleppicum* ssp. *strictum* both occur in the general area that this parking lot would likely be developed. These species are considered rare by the Alaska Center for Conservation Science, but they do not have the special designation of BLM Sensitive Species. *G. striata* was only found in the stream corridor and is usually restricted to wet conditions. Therefore, it is unlikely that it would be impacted by this action. *G. aleppicum* ssp. *strictum* is found along almost all of CT trails and maintained areas. If individuals of this species are removed due to this development, the population on CT and in the Anchorage bowl area would not be impacted.

During construction of the parking lot, there would be potential to introduce new non-native species or spread existing infestations. Materials and construction equipment often harbor seed or other plant material that can result in a new introduction. To mitigate this effect, the use of fill material and topsoil obtained from a certified weed-free source and ensuring that equipment is cleaned before entering the project site would be followed. When the final perimeter of the parking lot is determined, an analysis of existing infestations in or near the project area would be required. Site-specific mitigations, including some already present in Appendix H, to reduce the potential for spread would be developed at that time.

3.5.3.7 Recreation Permit Authorizations

Under the Proposed Action Alternative, recreation permits would be issued with stipulations, listed in Appendix H, to ensure operators follow best management practices to prevent damage to existing vegetation as well as prevent the introduction and spread of invasive species. Additionally, the CT invasive plant program plans to continue regular monitoring for high priority invasive species in all the areas where permitted recreation activities occur. No additional specific mitigation measures are recommended.

3.6 Resource Issue 6: Hydrology

3.6.1 Affected Environment

Nearly all the CT is located in two 6th level USGS hydrologic unit code watersheds: the 10k acre South Fork Little Campbell Creek watershed (HUC 190204010602) and the 19k acre South Fork Campbell Creek watershed (HUC 190204010601). Both are headwater catchments that originate on Chugach State Park lands and are tributary to North Fork Campbell Creek that empties into the Turnagain arm of Cook Inlet. CT lands lie in the lower portion of the South Fork Campbell Creek watershed that is almost entirely unurbanized. CT lands within the Little Campbell Creek watershed are drained by the North Fork Little Campbell Creek that is tributary to Little Campbell Creek. The little Campbell Creek watershed is mostly urbanized but CT lands make up the headwaters of the North Fork catchment and are still forested. Since drainage from, and through both, CT parcels is almost entirely unurbanized natural hydrologic functions are unimpaired.

About 5 acres of CT is located within the 18k acre North Fork Campbell Creek (HUC 190204010702). The existing Campbell Airstrip Trailhead parking area is entirely within the North Fork Campbell Creek Watershed.

Water quality in the Campbell Creek Basin is impaired by Fecal Coliform (FC) Bacteria. The basin's water quality was assessed by the USGS in 1983 (Brabets and Wittenberg, 1983). The report found that water quality in South Fork Campbell Creek was of good quality, but that Little Campbell Creek was impaired as the result of urbanization. Campbell Creek and Little Campbell Creek were placed on the Clean Water Act Section 303(d) list in 1990 for non-attainment of FC bacteria standards. In 2004 and 2006, respectively, Total Maximum Daily Loads were adopted for Little Campbell Creek and Campbell Creek removing them from the Section 303(d) list and placing them in Category 4a.

Fecal coliform bacteria concentrations in little Campbell Creek were found to be the highest in the Campbell Creek basin. The USGS report found that even though Little Campbell Creek only contributes 10-50% of the flow of Campbell Creek, it is often responsible for 50-100% of the bacteria load in the system. The impacts are greatest during low elevation snowmelt when the higher elevation South and North Forks of Campbell creek are not contributing as much runoff. An evaluation of FC in Little Campbell Creek found that FC concentrations had highest exceedance of standards on the South Branch of the North Fork Little Campbell Creek that drains from CT lands (Northon, 2019). The report concludes that further investigation of horse stables downgradient of CT and upgradient of the site tested during the investigation are needed. A MOA report on FC sources and transport in Anchorage streams suggests wild and domestic animal fecal waste is a significant source of the FC impairment of Anchorage streams (Municipality of Anchorage, 2003).

3.6.2 Environmental Effects—No Action Alternative

Under the no action alternative, current management and activities will continue. Direct and indirect effects to the water quantity (including timing, duration, and intensity of flow) and quality of the affected watersheds of the no action alternative should not change appreciably from the existing condition since there will be no new authorized ground disturbance.

3.6.2.1 Year-Round Single-Track Trail

Not building the proposed year-round single-track trail will have no impacts to water quality or quantity.

3.6.2.2 Trail System Maintenance

If trail maintenance is not conducted as planned in the proposed action trail conditions will likely deteriorate over time resulting in an increased likelihood of more direct delivery of additional sediment and other contaminants to adjacent water resources.

3.6.2.3 E-bike Types and Authorized Use Areas

Not authorizing E-bikes on CT will have no impact to water quantity or quality.

3.6.2.4 Winter Only Single-Track Trails

Not including existing unmanaged winter only single-track trails into the CT trail network may lead to persistence of current and the creation of additional unmanaged winter only single-track trails. Unmanaged user created trails could be constructed in locations, by means, and at densities that could increase the likelihood of resource damage including vegetation loss and increased soil erosion. Even though the trails are winter only, they could have adverse effects to water resources if placed on steep or unstable slopes close to water resources. If unmanaged, user created trails could result in increased delivery of sediment and contaminants to adjacent water resources.

3.6.2.5 Fuels Management Treatments

Not implementing the two proposed fuels management treatments would have no impact on water quality or quantity.

3.6.2.6 Campbell Airstrip Trailhead (CAT) Parking Area

Not implementing the proposed improvements at the CAT parking area could result in negative effects to water quality. Anticipated increases in usage of the existing unsurfaced parking area at the Campbell Airstrip Trailhead could lead to gradual user expansion of unpaved area by unmanaged parking. Un-engineered expansion of, and ongoing maintenance difficulties of the existing unpaved lot could lead to accelerated delivery of parking lot contaminants and sediment to Campbell Creek.

3.6.2.7 Recreation Permit Authorizations

Under the no action alternative, continued management of recreation permit authorizations containing stipulations to assure protection of water resources should result in limited direct or indirect effects to the water quantity and quality of the affected watersheds.

3.6.2.8 Reasonably Foreseeable Actions Effects

Reasonably foreseeable actions for CT recreation include increased usage over time if current recreation trends continue. This increased use of CT lands by recreationalists, their pets and horses could further impair the water quality of Campbell Creek if human and domesticated animal waste are not managed appropriately under the no action alternative.

3.6.3 Environmental Effects— Proposed Actions & Future Actions

What potential impacts could the proposed action have on water quality and quantity. What is the potential for additional sediment from proposed activities to be delivered to surface water?

Under the proposed action alternative, direct and indirect effects to the water quantity (including timing, duration, and intensity of flow) and quality of the affected watersheds should not change appreciably from the existing condition since there is little new ground disturbing activity being proposed. Stipulations and best management practices from Appendix H will be included in the future project design to mitigate additional adverse effects of recreation management activities on the area's hydrology.

3.6.3.1 Year-Round Single-Track Trail

The proposed year-round single-track trail will likely only disturb 0.5 acres and have limited direct or indirect effects to hydrologic resources. The proposed location is in the Little Campbell Creek watershed. The proposed approximate alignment of the trail is not located near any live tributaries of Little Campbell Creek. It maintains at least a 500' buffer of mostly intact vegetation along its entire alignment. This buffer should provide protection of the receiving water from possible delivery of sediment or containments that could threaten water quality. Similarly, the amount of area proposed to be compacted by the proposed trail is small enough and buffered adequately from live water that it should not affect the amount, timing, or intensity of runoff to Little Campbell Creek.

3.6.3.2 Trail System Maintenance

The proposed continuance of routine trail maintenance along with additional grooming of winter trails will likely have little to no negative direct or indirect effects to hydrologic resources. Proper and continued maintenance of trail drainage features is critical to aquatic resources to minimize accelerated erosion of tread and to disconnect delivery of trail sediment and contaminants to surface water features. Increased winter mechanical grooming will not likely affect water quality or quantity since trails are currently packed by user traffic. The proposed

trail condition on winter trails does not differ from the existing condition, only the method of packing is changing. All the proposed trail maintenance actions will likely benefit aquatic resources by enhancing design features intended to manage water flow from and on trails.

3.6.3.3 E-Bike Types and Authorized Use Areas

The proposed action to authorize Class 1 Pedal assist E-bikes should not cause negative direct or indirect effects to hydrologic resources. Soil erosion impacts from Class 1 E-bikes have been found to not be significantly different from mountain bicycles (IMBA, 2015). Since the proposal is to authorize Class 1 E-Bikes on existing trails currently open to mountain bikes there should be little to no appreciable change from the current impacts of the trails.

3.6.3.4 Winter Only Single-Track Trails

The proposed management of the existing unmanaged winter only single-track trails should not cause negative direct or indirect effects to hydrologic resources. Since no new surface disturbing tread construction is proposed it should not affect soil or vegetation along the alignments as long as adequate snow cover has accumulated before the trails are used.

3.6.3.5 Fuels Management Treatments

The proposed hazard tree removal and the maintenance of the existing shaded fuel break treatment prescriptions should not cause negative direct or indirect effects to hydrologic resources. Changes to an area's water balance could affect the hydrology of the area. Since hazard trees are dead or dying, and shaded treatments are not prescribing total vegetation removal, there is little change to the water balance of the stand of trees effected by the prescriptions since changes to evapotranspiration are likely minimal.

Removal of hazard trees, standing or on the ground, from riparian areas along streams can be detrimental to stream stability and health. Trees provide critical stability to stream banks and channels by providing root mass and roughness to banks and channel beds. To mitigate these effects, tree biomass should only be removed from stream corridors when they pose a direct safety threat to recreation by obstructing floating or threaten critical infrastructure such as bridges. If standing trees need to be felled in stream zones they should be left in place on the ground, when possible, to aid in erosion control and bank/stream stability.

The proposed maintenance of the existing shaded fuel treatment area of approximately 1.95 miles or 33 acres is distributed evenly between the affected watersheds. The proposed treatment area amounts to approximately at most 0.2% of the acreage of any of the affected watersheds. The prescribed thinning methods and timing along with no proposed new roads should have little to no effect on the hydrologic function of the treated areas. Since the shaded treatment is not removing all vegetation evapotranspiration should not be affected greatly enough, especially over such small areas within in any of the affected watershed.

3.6.3.6 Campbell Airstrip Trailhead (CAT) Parking Area

The CAT proposal would pave the existing 0.6-acre gravel parking area and expand the footprint approximately 1.6 acres to add more parking. This would change 2.2 acres of existing porous surface to impermeable pavement. The CAT parking area improvements should decrease runoff-related impacts that occur at the existing parking area on water resources by improving drainage and management of the area. The existing parking area has limited drainage and requires regular maintenance to manage potholes and other drainage issues of the unpaved lot.

Additional field survey work will be necessary ahead of any construction, and flexibility in parking lot design would ensure effects to the nearby Campbell Creek are reduced. According to the USGS watershed mapping, the current parking area is in the North Fork Campbell Creek watershed just north of its watershed divide with the South Fork Campbell Creek watershed. The proposed expansion and drainage shown in Map 5 cross the hydrologic divide into South Fork Campbell Creek. The area has very little topographic relief requiring verification of adequate separation vertically and horizontally of the proposed design from South Fork Campbell Creek. Horizontal separation will help assure that runoff drainage is adequately designed to not directly deliver a point source discharge to South Fork Campbell Creek. Vertical assessment will assure that the new design does not extend into the 100-year flood plain of the South Fork Campbell Creek.

3.6.3.7 Recreation Permit Authorizations

Continued management of SRP activities on CT should help protect water resources by managing the numbers of participants and timing of their activities. Continued case by case approval and assessment of need for additional human waste management through the SRP process should assure that water quality is not impaired as a result of intensive permitted events.

3.6.3.8 Reasonably Foreseeable Actions

Reasonably foreseeable actions for CT recreation include increased usage over time if current recreation trends continue. This increased use of CT lands by recreationalists, their pets, and horses could further impair the water quality of Campbell Creek if human and domesticated animal fecal waste are not managed appropriately.

3.7 Resource Issue 7: Fisheries

3.7.1 Affected Environment

There are three waterways that contain fish located at the BLM Campbell Tract: The South Fork Campbell Creek, Campbell Creek, and North Fork Little Campbell Creek.

3.7.1.1 South Fork Campbell Creek

The South Fork Campbell Creek is identified by the Alaska Dept of Fish and Game Anadromous Waters Catalog (ADF&G (d) 2022) & (Geifer & Blossom 2021) as important for the spawning,

rearing, or migration of anadromous fishes pursuant to AS 16.05.87(a). Anadromous Chinook, coho, pink, chum, and sockeye salmon have all been documented to use the South Fork of Campbell Creek.

3.7.1.2 Campbell Creek

Campbell Creek supports populations of rainbow trout, Dolly Varden, and slimy sculpin. Chinook salmon migrate up the creek and spawn from late-June through July, Sockeye salmon migrate up the creek from mid-June to mid-August, and coho salmon from late-August through October. Pink and chum salmon maybe present but this portion of the creek is not identified as a spawning or rearing location. The creek is stocked annually with rainbow trout and coho salmon by the ADF&G. This section of creek is closed year-round to all salmon fishing, open for catch-and-release only rainbow trout fishing and Arctic char/Dolly Varden retention and is a popular fishery during the summer months. Salmon are an important food source for bears when present, particularly brown bears. The most current ADF&G fishing regulations are available annually in the Sport Fishing Regulations Summary for South Central Alaska.

3.7.1.3 North Fork Little Campbell Creek

The North Fork Little Campbell Creek is a small stream located on the east side of the Campbell Tract and parallels portions of Elmore Road. It is identified in the ADF&G AWC with Chinook and coho salmon present. BLM Campbell Creek Science Center has had an educational fisheries collection permit for two locations in the North Fork of Campbell Creek. Minnow traps baited with salmon roe are placed at one or both locations and let set for several hours or overnight. Traps are collected and species identified by instructor and the students then released back to the creek. Information of species and numbers are recorded for inclusion in an annual report furnished to ADF&G as a requirement of the permit. Macro invertebrate sampling is also conducted by the CCSC in the North Fork Little Campbell Creek as part of the water quality education component. CCSC analysis of the macro invertebrate information is performed to analyze water quality and make comparisons from year to year.

3.7.1.4 Recreation Impacts to CT Creeks

Some of the issues these three creeks experience by users of CT include the trampling of redds, molesting of spawning fish, illegal fishing, riparian vegetation trampling, and gold panning. The trampling of redds during fishing and recreational activities, has the potential to cause high mortality of salmonids. Angler wading can cause high mortality (43%-96%) of alevins (very young salmon that remain in the gravel) with only one or two passes per day (Roberts and White 1992). The extent or cumulative effects of this type of disturbance are not known (Roberts and White 1992). The molesting of spawning fish primarily occurs by dogs at CT, who molest or impede the spawning or natural movement of fish and used as a means of sport fishing. Trampling of riparian vegetation from CCSC events such as Outdoor Days, Water Discovery Days, or other events that concentrate large groups of people on the Campbell Creek /North Fork Little Campbell Creek and adjacent riparian areas may trample emerging vegetation especially in the spring.

Gold panning is legal for the public at the three creeks on CT. Gold panning occurs as part of CCSC events such as Outdoor Days and uses creek substrate which has the potential to impact fish eggs or alevins in the gravel as well as import invasive aquatic species or vegetation. The activity disturbs and has the potential to destroy fish eggs, displace micro invertebrates, increase turbidity, change the flow pattern of creek, and disturb stream banks, and vegetation.

3.7.2 Environmental Effects—No Action Alternative

Under the no action alternative current management and activities will continue. Direct and indirect effects to the fisheries habitat on CT from the no action alternative should not increase appreciably since there will be no new ground disturbance.

3.7.2.1 Year-Round Single-Track Trail

Under the no action alternative, the trail would not be constructed, and all existing natural drainage patterns would be maintained as-is with no additional impact to fisheries habitat.

3.7.2.2 Trail System Maintenance

Under the no action alternative, trail maintenance would continue at current levels and continue to have a low impact to fisheries.

3.7.2.3 E-Bike Types and Authorized Use Areas

Under the no action alternative, E-bikes would not be authorized so no change to the existing use of trails by bike users would occur resulting in no change to impacts to the fisheries habitat.

3.7.2.4 Winter Only Single-Track Trails

Under the no action alternative, use of existing unmanaged winter only single-track trails would continue and have a low impact to fisheries habitats.

3.7.2.5 Fuels Management Treatments

Under the no action alternative, the proposed fuel treatments would not be implemented and there would be no impacts to fisheries.

3.7.2.6 Campbell Airstrip Trailhead (CAT) Parking Area

Under the no action alternative, the proposed improvements at the CAT parking area could lead to gradual user expansion of unpaved area by unmanaged parking. Un-engineered expansion of, and ongoing maintenance difficulties of the existing unpaved lot could lead to accelerated delivery of parking lot contaminants and sediment to Campbell Creek and negatively effect fish habitat.

The existing impacts to fisheries from the CAT parking area would likely continue at current levels or increase due to the graveled surface and related sediment runoff and vehicle hydrocarbons that likely flow into the creek.

3.7.2.7 Recreation Permit Authorizations

Impacts to fisheries habitat from recreation permit authorizations would remain the same as current levels. All permitted events include stipulations to mitigate effects to the fisheries habitat and prevent any associated riparian area vegetation trampling. To mitigate the trampling of riparian vegetation access should focus groups of people to areas of less impact such as gravel bars and also educate groups about the impacts of trampling riparian vegetation.

3.7.3 Environmental Effects— Proposed Actions & Future Actions

What is the potential impact of the proposed action on fisheries and aquatic species? What is the potential for introduction of aquatic invasive species as a result of these actions?

3.7.3.1 Year-Round Single-Track Trail

Little effect on fisheries is expected from the proposed expansion of a single-track trail as there are no streams or fish habitat in close proximity to the planned trail.

3.7.3.2 Trail System Maintenance

The proposed continued maintenance of existing, and any future constructed trails would likely have a low potential for negative effects to fisheries. This action would continue at current levels using similar methods and would likely have a beneficial effect by improving drainage and reducing sediment runoff directly to streams.

3.7.3.3 E-Bike Types and Authorized Use Areas

The proposed authorized use of E-bikes involves no new ground disturbance and while it may increase recreational use at CT, the impacts are similar to current mountain bike uses and impact to fisheries habitat would likely be minor due to the use occurring on existing trails.

3.7.3.4 Winter Only Single-Track Trails

There would be a low potential impact to fisheries habitat from the winter only single-track trail proposal. The proposal does not include any removal of riparian vegetation and winter use would only occur when six inches or more snow is present, and ground is frozen. These trails do not receive summer use due to their location in bogs and marshes thus reducing the potential for impacts to riparian vegetation.

3.7.3.5 Fuels Management Treatments

The two proposed fuel treatments include specifications to limit removal of trees and riparian vegetation adjacent to streams as well as make use of coarse woody debris beneficial to streams when possible. The proposed action, therefore, has low potential for negative effects and may beneficially effect fisheries habitat.

3.7.3.6 Campbell Airstrip Trailhead (CAT) Parking Area

The CAT proposal would pave the existing 0.6-acre gravel parking area and expand the footprint approximately 1.6 acres to add more parking. This would change 2.2 acres of existing porous surface to impermeable pavement. The CAT parking area improvements should decrease runoff-related impacts that occur at the existing parking area on water resources by improving drainage and management of the area. The existing parking area has limited drainage and requires regular maintenance to manage potholes and other drainage issues of the unpaved lot.

The CAT proposal would increase the current 20-25 gravel parking spaces to 100-120 paved parking spaces, which has the potential to increase access and recreational use of the area which is on Campbell Creek. Effects to fisheries related to increased access could include more social trails to the creek affecting riparian vegetation and streambank stability, increased potential for the trampling of redds, and increased fishing pressure on Campbell Creek near this access. To mitigate the effect of trampling of redds, effective public messaging such as interpretive panels, brochures, and posters that educate about how users can minimize their impacts, especially during spawning and while eggs and alevins (July - April) are present in the stream substrate. Continued enforcement of Alaska statutes would also help to mitigate the occurrence of molesting of fish by dogs or people and illegal fishing. These measures in addition to those from Appendix H would mitigate and reduce impacts to aquatic resources.

3.7.3.7 Recreation Permit Authorizations

The recreation permit proposal would have the potential to reduce impacts to fisheries habitat by incorporating stipulations and best management practices included in Appendix H aimed at restricting use near streams and riparian habitat. Additionally, to mitigate the trampling of riparian vegetation, all use permitted near a stream would focus groups of people to areas of less impact such as gravel bars and also educate groups about the impacts of trampling riparian vegetation.

3.7.3.8 Past and Reasonably Foreseeable Actions

A past 2016 Environmental Analysis (EA) analyzed a proposal to realign the BLM Road with East 68th Avenue and expand parking at the Smokejumper Trailhead. The construction has experienced delays and is now slated for construction this Summer, 2022. The BLM Road - East 68th Avenue realignment and associated Smokejumper Trailhead improvements would create 3 new acres of surface disturbance and vegetation removal and 20 new parking spaces.

The proposal to develop and increase the available parking at CAT represents an increase in 1.6 new acres of surface disturbance and vegetation removal and 95 new parking spaces. This CAT

project is proposed for future construction and the proposed acreages and parking spaces are conceptual predictions to provide something for analysis until the snow free season allows more site inventory to occur.

The CCSC and associated programs, as a whole, were an issue identified but eliminated from further detailed analysis for reasons covered in Section 1.8.8. A future project under recent development is a proposal to develop and increase available parking at the CCSC. The alternatives are still under development but the alternative with the largest footprint creates 2.25 new acres of surface disturbance and vegetation removal and approximately 60 new parking spaces. The number of recreation visitors during normal business hours is limited, but with the improvements and an increase in available parking that is part of the CCSC parking lot proposal could have the potential to increase recreation visitation to CT.

While the CCSC alternatives are still under development, cumulatively, these three construction projects have the potential to account for an increase in 175 parking spaces and create 6.85 new acres of surface disturbance and vegetation removal. The proposed CAT project and CCSC projects are still in the conceptual phases and would likely change in size.

Cumulatively, the CCSC parking lot, Smokejumper trailhead and CAT trailhead developments have the potential to increase visitation numbers at CT. This may contribute to increased potential for the trampling of redds; molesting of spawning fish; illegal fishing; riparian vegetation trampling, and gold panning. To minimize effects to fisheries from increased recreational use, the best management practices (BMPs), stipulations, and design features from Appendix H would be used. The following mitigation measures would minimize residual effects from increased recreation use: In areas where social trails develop that impact riparian areas placement of a restrictive barrier such as buck and rail fence or a natural barrier to restrict access to these trails may be used as a mitigation measure.

3.8 Resource Issue 8: Visitor Safety & Security

3.8.1 Affected Environment

The BLM Campbell Tract is located within the MOA, a modern city of approximately 300,000, and therefore experiences all the issues and challenges of an urban recreation site. Recreational users come from across the Anchorage Bowl to utilize CT Trails. CT users have expressed that unleashed dogs and theft from parked cars are the two most pressing safety and security concerns. Vehicular break-ins and other criminal incidents occasionally occur on CT. Additional safety and security issues impacting CT users include encounters with un-controlled dogs, conflicts between user groups, homeless and illegal campers, and the well-known hazards of interacting with large wildlife in the Alaskan environment most notably bears and moose, along with the hazards associated with users in aviation administrative areas.

Crime

Trailhead crimes do occur on public lands throughout the Anchorage Bowl, CT included. The most common trailhead incidents on CT are vehicle break-ins that primarily occur at

Smokejumper and Campbell Airstrip Trailheads. Criminals, sometimes posing as recreation users, case parking lots with unattended vehicles and dash in and break windows to steal vehicle contents, especially valuable items left in sight. Users who have been targeted return to their vehicles to find broken glass and their personal property missing. Some users report these crimes to the BLM however many do not, as evidenced by the remains of broken windows often found in CT parking lots and descriptions of incidents described by frustrated users on social media. Additional trailhead concerns on CT include alcohol and illegal drug use as evidenced by alcohol packaging and drug paraphernalia litter in parking lots.

BLM law enforcement has developed effective working relationships with MOA and other local land managers including Chugach State Park (CSP) who regularly share intelligence and resources to deter these crimes. Some criminal acts are the purview of local law enforcement and not the BLM, which provides a dual enforcement impact for users. The most effective deterrent is visitor education, and signs are placed at trailheads which encourage users not to leave valuable property in their vehicles and/or to secure property out of sight in a locked compartment. Trailhead lighting and security cameras are also valuable tools to improve trailhead security and user safety. BLM has addressed these issues and implemented some of these measures with limited success. MOA and BLM law enforcement also patrol trailhead parking lots. Limited resources and competing BLM law enforcement priorities frequently leave the more remote trails and trailheads less patrolled.

Smokejumper Trailhead is currently lighted and expansion plans associated with the pending relocation of the CTF entrance road with 68th Avenue call for the installation of increased lighting and installment of more modern security cameras. The more remote Campbell Airstrip Trailhead lacks infrastructure to provide lighting and other modern security features.

Uncontrolled Dogs

Unleashed dogs represent a safety challenge on public lands in the Anchorage Bowl and particularly on CT. One of the main drivers of this issue are the differences in pet regulations between BLM, MOA, and CSP and the confusion this creates in the minds of dog walking recreational users. BLM's regulations prohibit unleashed dogs anywhere on CT. The 1998 regulation to prohibit unleased dogs was established to provide for consistency with then-existing municipal ordinances on adjacent park lands as well as visitor safety and resource protection on CT. Current MOA regulations authorize unleashed dogs on park lands if controllable by voice command or electronic collars. Chugach State Park dog regulations differ in front-country and backcountry environments resulting in additional confusion. Regardless of these confusing regulations, many dog owners walk their unleashed dogs on CT. This represents a challenging compliance issue for recreators, BLM law enforcement rangers, and management.

Unleashed dogs have historically constituted a safety issue for the dog walkers who do keep their pets on a leash, for sled dog teams in harness, for horses used by equestrians, for all other recreating user types, and for wildlife. Numerous incidents of unleashed dogs attacking leashed dogs have been documented by BLM rangers and recreation staff. Additional incidents of unleashed dogs attacking other users recreating on foot, bicycles, and even horseback have also been documented. In a handful of cases, riders have been thrown from horses and bikers have lost control resulting in serious injuries.

Unleashed dogs are often more distant from their owner therefore, the owners may be less aware of when their dog creates waste. Despite BLM providing waste bags and garbage receptacles at each trailhead, the accumulation of dog waste on CT is a problem. Dog waste contributes to the presence of Fecal Coliform bacteria in Anchorage waterways, including those on CT, impairing the water quality of nearby streams. The presence of fecal waste from dogs and horses contributes to the maintenance workload of BLM staff and unfortunately necessitates annual volunteer events such as "Scoop the Poop" where volunteer trail users, whether dog or horse owners or not, volunteer time to pick up dog waste to increase the safety of the trails, create a more enjoyable experience for all trail users, and hopefully contribute to a decrease in the amount of bacteria delivered to streams.

As with trailhead security, educating dog owners about existing CT dog leash rules continues to be the preferred management tool. Dog leash requirements are posted at every trailhead and legitimate entry point on CT. Enforcement through tickets by law enforcement rangers is a discretionary tool mainly reserved for users whose animals create a clear hazard to other users. Conflicting and confusing regulations across park lands managed by the MOA, BLM, and CSP adds to enforcement issues.

User Group Conflicts

Conflicts between users on CT is an additional safety concern that is a long-standing issue sometimes resulting in verbal confrontations and injuries. Besides unleashed dog walking, user conflicts occur between fast moving users and slow-moving users such as skate skiers, ski jorers, and bicycle riders unexpectedly encountering slower moving users on foot and horseback. BLM strives to manage vegetation along the trail network to promote maximum line of sight distances to reduce these unexpected encounters while still maintaining the natural, woodsy feel that draws users to CT. User conflicts increase exponentially in the winter months when users lose the ability to travel off trail as easily as summer months and spread out. Contrary to summer use, most users are funneled to the groomed surface trails and find it more difficult to avoid each other in narrow sections of trail and during peak daily and seasonal use.

User conflicts also occur when BLM or MOA permit large and/or fast-moving events such as timed ski or Fat bike races, sometimes with many hundreds of participants. This type of conflict occurs most often on the wide main trails such as Viewpoint Trail which connect southern MOA trails across CT to the northern MOA trail network. Most trail users tend to be well informed of these highly advertised events and either avoid these areas on the day of the event or line the trails as spectators. As a condition of the permit, warning signs are posted along the race route in advance of these activities and volunteer trail monitors associated with the event are often staged at critical trail junctions.

Of special concern are crossings or incursions onto the designated winter sled dog trail network by other users on foot, bike, or skis. In addition to a full slate of scheduled weekend winter races, recreational and competitive mushers can be encountered on designated winter sled dog trails at any time of the day or night exercising their teams and training for races. Sled dog teams are fast and silent and cannot stop rapidly. Due to the nature and length of their teams, mushers also have a very limited line of sight as their teams navigate the twisting, narrow trails. Although alternative uses of designated winter sled dog trails are highly discouraged and unofficially

"closed" to all non-mushing snow-season uses, other recreation users, either knowing or unknowingly, are drawn to the designated winter sled dog trails due to the high quality of the groomed trail surface which creates the conditions for potentially dangerous interactions. The recent proliferation of the existing unmanaged winter only single-track trails on CT represents an additional hazard to the sled dog community as some of the existing unmanaged winter only single-track trails intersect and cross designated winter sled dog trails in unexpected and unmarked locations.

User education on trail etiquette and cooperative use is the most important tool for promoting user safety and reducing conflicts on CT trails. BLM and MOA sponsor quarterly user group meetings, reaching out to representatives of local user groups and neighborhoods to identify, discuss, and solve recreation issues. Permanent regulations and trail etiquette signage posted at trailheads and entry points, and temporary, event-specific signage are additional user education tools. The CT and MOA Parks and Recreation websites also provide important public user and safety information and are updated frequently. BLM CT recreation planners closely monitor public trail-user social media sites to stay abreast of user reports and developing safety and security concerns.

Homeless & Illegal Campers

Camping and overnight stays are prohibited for the general public on CT lands and at all trailheads. Camping is occasionally authorized in support of agency needs such as staging fire crews during emergency incidents or crews performing project work on CT. Infrequent overnight use has also been authorized by Special Recreation Permit (SRP) on CT to provide a realistic venue for an Anchorage-based wilderness survival training provider.

Incidents of illegal overnight parking in the SJ Trailhead parking lot and the CAT parking lot can average 2-5 times per month based upon law enforcement and employee observations, occurring more frequently in the summer months as increased tourists and travelers pass through the area. Concerns related to the presence of overnight parking lot campers have been brought up at user group meetings, usually in the context of greater trailhead security concerns. Overnight users often abandon trash and unwanted property upon departure and contribute to a general sense of unease among regular CT users, especially those who recreate in the later evening hours. BLM law enforcement rangers often contact these overnight campers in the morning hours and request that they relocate off CT.

Illegal overnight camping in the wooded park areas of Anchorage is a year-round issue throughout the Muni that also spills onto CT lands. Immediately to the north of CT, FNBP experiences heavy resource impacts from illegal camps, often comprised of large numbers of homeless individuals residing in tents and plastic tarp structures built with natural forest materials. These sites are frequently surrounded by discarded food packaging and litter, empty propane bottles, discarded clothes, abandoned bicycles, and damaged camping gear. Sites are accessed from established recreation trails by heavily trodden social trails and are often stripped of dead wood to support illegal cooking and warming fires. Camps of this nature have occasionally occurred on CT but are more likely to occur on FNBP due to the proximity of Tudor Road services. These camps can often result in residual impacts on CT resources including increased littering, social trailing, and wildland fire potential. Over the past decade the

Anchorage Fire Department has been called in to suppress numerous fires that have been linked to illegal group camps just north of CT on FNBP including potentially serious wildland fire incidents in 2016 and 2019.

Evidence of single individuals temporarily camping on CT proper are more common than the larger group camps to the north and are usually better hidden and lower impact. These sites are often found after they have been abandoned and commonly include discarded camping gear, litter, and evidence of campfires. CT recreation staff have been drawn to active camp locations by the smell of campfires and have encountered these sites while performing resource work in dispersed recreation zone locations.

The clean-up of these camp locations can represent significant recreation staff workload that may involve the use of motorized vehicles to remove large amounts of waste. Impacts to the environment can be long-term including extensive ground disturbance, the cutting of green trees and natural vegetation, and the cutting and removal of trees for firewood and shelter construction. BLM and FNBP staff frequently share intelligence on illegal camping observations and collaborate on the cleanup and removal of camp sites.

Wildlife Encounters

Encounters between wildlife and recreational users is an additional safety concern for CT users. Black bears are ubiquitous on CT throughout the non-snow season and brown bears are known to concentrate on CT and FNBP lands adjacent to the South Fork of Campbell Creek feeding on various salmon species from June through October. Moose are commonly encountered on CT trails and are especially dangerous during the Fall rut or when accompanied by offspring. Unleashed dogs have been known to harass and injure moose and can promote or exacerbate aggressive bear behavior. BLM has received reports of unleashed dogs being injured in bear and moose encounters and at least one case of an unleashed dog killed by coyotes has been documented.

Wildlife safety information explaining proper bear awareness and moose encounter safety protocols is posted at all main trailheads. Specific bear warning and danger signs are posted on trails in the vicinity of the South Fork of Campbell Creek from approximately May to November educating users on the increased chance of encounters with brown bears in the Summer and Fall. BLM is also an active participant in the Anchorage Bear Committee (ABC), a local interagency group of wildlife biologists and land managers sponsored by Alaska Department of Fish and Game to coordinate bear management policies and education efforts across the Anchorage Bowl.

Users In Aviation & Administrative Areas

The active CT administrative areas contain office and warehouse spaces, fenced outdoor equipment yards, heavy equipment maintenance operations, a five-pad heliport, and a 5000-foot gravel airstrip. CT roads and industrial areas are busy with employee, delivery, and heavy equipment traffic during the normal business hours of 6 A.M. through 6 P.M., Monday through Friday, but may see similar activity at any hour or day of the week.

Recreational users, arriving mostly on foot from adjacent neighborhoods, commonly walk through the industrial areas of the CTF during the normal business hours when the gate on BLM

Road leading to the main compound is open. Signs are in place to discourage this use; however, they are generally ignored. This results in the potential for hazardous situations as vehicles conducting government business and recreational walkers share the same roadway. Similarly, the Science Center Drive is frequented by many recreational users who prefer to walk, bike, and push strollers on the paved road surface with improved lines of sight to better avoid bear and moose encounters. Neither road has sidewalks, and the situation is especially hazardous during the snow season when plowed snow berms narrow the roadways. Whether the road gates are closed or open, recreational users skirt around locked gates on user-created trails to continue their use of paved surface.

Despite a closure of the aviation areas, users also enter the heliport and/or the airstrip aviation zones and pose additional safety and security issues for themselves and BLM. Helicopters and aircraft are never left unattended on CT overnight due to this afterhours recreation traffic in the developed areas of CT. On many summer evenings it is common to observe dozens of users walking through the administrative compound and aviation zones as they take advantage of the open lines of sight and up to 20 hours of daylight.

Recreation use has been significantly reduced over the past decade on the airstrip proper and doesn't represent the same level of previous concern. The most effective mitigation was the construction of a recreation trail to the west side of the airstrip proper that provides opportunities for users to safely recreate in the airstrip corridor.

BLM aviation staff state that agency use of the airstrip has declined from a high of almost 150 flights annually during occasional years between 2000-2010 to just one or two dozen flights annually over the past five years. An increase in field work projects supported from the CT airstrip may increase in future years, but a return to anything approaching 150 flights annually from the airstrip in the next ten years is not anticipated. Agency use of the heliport occurs infrequently during the non-snow season, often associated with employee training, and sometimes related to emergency fire suppression operations such as supporting the McHugh Creek Fire on CSP in 2016.

A frequent use of the Campbell Airstrip during the last five years has been as a venue for training agency Unmanned Aerial Vehicle (UAV) pilots in advance of actual field work missions. Well-developed public contact and safety protocols are in place to safely guide UAV flight operations in the vicinity of the recreating public. The airstrip is also utilized for unscheduled landings by civilian pilots experiencing in-flight emergencies.

Recreational users are drawn to the airstrip due to the ability to spot and avoid bears and moose at great distances, to enjoy views of the Chugach Mountains unavailable from the wooded trail system, run their unleashed dogs, and to recreate in an area with reduced insect exposure. During the snow season designated winter sled dog trails are groomed in the airstrip corridor and recreational skiers sometimes seek out the superior snow depths in the unshaded airstrip corridor. Most of these users have never seen an aircraft land or take off from the airstrip and are often oblivious to any potential safety threat. Pilots occasionally report occurrences of civilians walking or biking on the airstrip proper and most commonly perform an overflight of the airstrip to identify human and wildlife hazards before attempting to land. Information signs are placed along the airstrip and at adjacent trail junctions warning the public that it is an active airstrip and that recreating on the airstrip is prohibited and dangerous.

3.8.2 Environmental Effects—No Action Alternative

3.8.2.1 Year-Round Single-Track Trail

Under the No Action Alternative BLM will not authorize developing a narrow year-round multi-use single-track trail. By not developing the year-round single-track trail there will likely be continued pressure in the trail recreation zone during high visitation times and dates, particularly on the Viewpoint Trail and the P-38 Trail due to the increasing number of visitors CT has experienced over the past 30 plus years, especially during events such as the Tour of Anchorage race as there will be no means to bypass those routes and connect to other trails throughout the trail network. During winter months, conflicts will likely continue between user groups, particularly with sled dog teams and other outdoor recreators on the P-38 Trail when it is only open to sled dog teams.

- *Crime* - Under the No Action Alternative no temporary or long-term increase or decrease in the frequency and type of crimes on CT are anticipated if this trail is not constructed.
- *Uncontrolled Dogs* - Under the No Action Alternative year-round negative interactions between uncontrolled dogs and authorized events and activities on Viewpoint Trail will continue to occur. Snow season incursions onto the designated P-38 winter sled dog trail by users with uncontrolled dogs avoiding crowded conditions on Viewpoint Trail will continue to endanger sled dog teams and mushers.
- *User Group Conflicts* - Under the No Action Alternative negative conflicts on Viewpoint Trail between authorized event participants and casual recreation users will continue including increased potential for injuries between fast and slow-moving users and a degradation of the quality of both user group's recreation experience on CT. Disruptions to sled dog training and competitive events from skiers and Fat bike users short-cutting to P-38 from Viewpoint Trail to avoid crowded trail conditions will continue, as will the likelihood of injuries to sled dogs, mushers, and other recreation users.
- *Homeless & Illegal Campers* - Under the No Action Alternative no temporary or long-term changes to existing homeless and illegal camping on CT are anticipated.
- *Wildlife Encounters* - Under the No Action Alternative this will not introduce additional recreational use into an area of forest that is currently trail-less and is serving as a potential refugia for CT wildlife, resulting in fewer unexpected encounters between users and wildlife in this area.
- *Users in Aviation & Administrative Areas* - Under the No Action Alternative no increase or decrease or temporary or long-term impacts to recreation use of CT aviation assets or administrative areas is anticipated.

3.8.2.2 Trail System Maintenance

The No Action Alternative will follow guidance in the CT 1988 Management Plan for routine trail maintenance. The current guidance provides management with flexible options which may require additional site-specific NEPA analysis to perform on the ground activities. As that guidance is vague and unclear as to what types of projects/work has been analyzed and authorized, routine trail system maintenance can be difficult and prohibitive to accomplish.

- *Crime* - Under the No Action Alternative incidents of crime on CT will neither increase nor decrease using current maintenance protocols.
- *Uncontrolled Dogs* - Under the No Action Alternative current trail maintenance operations will remain unchanged and will have no effect on the frequency or issues associated with uncontrolled dogs on CT.
- *User Group Conflicts* - Under the No Action Alternative current trail system maintenance operations will remain unchanged and the potential for conflicts between user groups remain unchanged.
- *Homeless & Illegal Campers* - Under the No Action Alternative current trail system maintenance operations will remain unchanged and incidents of illegal camping will remain unchanged.
- *Wildlife Encounters* - Under the No Action Alternative current trail system maintenance operations will remain in place and the potential for recreation users to experience negative encounters with wildlife will remain unchanged.
- *Users in Aviation & Administrative Areas* - Under the No Action Alternative current trail system maintenance operations will remain in place and patterns of recreational users passing through and recreating in Administrative and aviation areas will remain unchanged.

3.8.2.3 E-Bike Types and Authorized Use Areas

Under the No Action Alternative BLM will retain the current E-bike definition that all E-bikes are classified as Off Highway Vehicles (OHVs). As such, BLM will continue restricting e-bikes on CT. E-bike restrictions will continue to be very difficult to enforce as E-bikes are authorized on the connected FNBP trail network and their unauthorized use on CT trails continues to rise. Additionally, E-bikes are becoming more popular with outdoor recreators, and the E-bike industry has continued to grow over the past several years.

- *Crime* - Under the No Action Alternative incidents of crime on CT will neither increase nor decrease by authorizing the use of E-bikes. E-bikes will not be authorized under this alterative and law enforcement could issue citations for E-bikes, as they are not currently authorized.
- *Uncontrolled Dogs* - The No Action Alternative incidents of uncontrolled dogs will neither increase nor decrease by the authorizing of the use of E-bikes.
- *User Group Conflicts* - Under the No Action Alternative user conflicts will likely increase and are likely to be long term, if not permanent, as E-bike technology evolves and becomes more accessible. The negative effects will be realized throughout CT as E-bike use is currently authorized on the adjacent FNBP trail network.
- *Homeless & Illegal Campers* - Under the No Action Alternative no temporary or long-term changes to existing homeless and illegal camping on CT are anticipated.
- *Wildlife Encounters* - Under the No Action Alternative the potential for recreation users to experience negative encounters with wildlife will remain unchanged.

- *Users in Aviation & Administrative Areas* - Under the No Action Alternative no increase or decrease or temporary or long-term impacts to recreation use of CT aviation assets or administrative areas is anticipated.

3.8.2.4 Winter Only Single-Track Trails

Under the No Action Alternative BLM will not incorporate and authorize maintenance of the existing unmanaged winter only single-track trails into the designated snow season trail network. By not incorporating these trails, the potential for resource damage will be unknown and unmitigated without managerial controls. The trails will not be able to receive any form of maintenance (brushing, special STA grooming.) etc.

- *Crime* - Under the No Action Alternative no temporary or long-term increase or decrease in the frequency and type of crimes on CT are anticipated if these trails are not incorporated.
- *Uncontrolled Dogs* - Under the No Action Alternative issues associated with uncontrolled dogs on the existing unmanaged winter only single-track trails will remain unchanged and will have no effect on the frequency or extent of the issues associated with uncontrolled dogs.
- *User Group Conflicts* - Under the No Action Alternative the existing unmanaged winter only single-track trails will continue to be unmanaged by BLM. The unregulated proliferation of these trails will continue to negatively impact users in the dispersed recreation zone such. Additionally, these trails could continue to conflict with the designated winter sled dog trail network. The unmanaged nature of these trails will continue to confuse various user groups on the appropriate use of the trails, potentially leading to conflicting uses and a degradation natural resources and proliferation of unauthorized sign placement.
- *Homeless & Illegal Campers* - Under the No Action Alternative no temporary or long-term changes to existing homeless and illegal camping on CT are anticipated.
- *Wildlife Encounters* - Under the No Action Alternative the potential for recreation users to experience negative encounters with wildlife will remain unchanged.
- *Users in Aviation & Administrative Areas* - Under the No Action Alternative no increase or decrease or temporary or long-term impacts to recreation use of CT aviation assets or administrative areas is anticipated.

3.8.2.5 Fuels Management Treatments

Under the No Action Alternative BLM will not address the burgeoning hazard tree situation on CT. Hazard trees will only be removed if they posed an immediate threat or fell onto a road or trail. The BLM will be unable to proactively remove hazard trees with an identified buffer thus reducing the threat to trails, roadways, parking lots, and other administrative areas.

Under the No Action Alternative BLM would not maintain the existing shaded fuel break (Appendix E: Map #7). Future maintenance of the existing shaded fuel break would require

further NEPA analysis. Without maintenance, the existing fuel break would not function well as a future control line and would not provide a defensible position for emergency responders.

- *Crime* - Under the No Action Alternative no temporary or long-term increase or decrease in the frequency and type of crimes on CT are anticipated if the treatments aren't implemented.
- *Uncontrolled Dogs* - Under the No Action Alternative the extent of the issues associated with uncontrolled dogs will remain unchanged and will have no effect on the frequency these issues arise.
- *User Group Conflicts* - Under the No Action Alternative the potential for conflicts between user groups remain unchanged.
- *Homeless & Illegal Campers* - Under the No Action Alternative no temporary or long-term changes to existing homeless and illegal camping on CT are anticipated.
- *Wildlife Encounters* - Under the No Action Alternative the potential for recreation users to experience negative encounters with wildlife will remain unchanged.
- *Users in Aviation & Administrative Areas* - Under the No Action Alternative no increase or decrease or temporary or long-term impacts to recreation use of CT aviation assets or administrative areas is anticipated.

3.8.2.6 Campbell Airstrip Trailhead (CAT) Parking Area

Under the No Action Alternative BLM will retain the current management strategy and condition of the Campbell Airstrip Trailhead. Without adequate infrastructure at the trailhead, it is likely that there will continue to be high congestion and an increased risk to personal safety and security of property.

- *Crime*- Under the No Action Alternative crime at CAT will likely continue to be an issue into the foreseeable future as it has in the past.
- *Uncontrolled Dogs*- Under the No Action Alternative the extent of the negative issues associated with uncontrolled dogs in the CAT parking area will likely continue unchanged into the foreseeable future.
- *User Group Conflicts*- Under the No Action Alternative the potential for conflicts between user groups remain unchanged.
- *Homeless & Illegal Campers*- Under the No Action Alternative no temporary or long-term changes to existing homeless and illegal camping on CT are anticipated.
- *Wildlife Encounters*- Under the No Action Alternative Under the No Action Alternative the potential for recreation users to experience negative encounters with wildlife will remain unchanged.
- *Users in Aviation & Administrative Areas*- Under the No Action Alternative no increase or decrease or temporary or long-term impacts to recreation use of CT aviation assets or administrative areas is anticipated.

3.8.2.7 Recreation Permit Authorizations

Under the No Action Alternative BLM would continue to utilize the CT 1988 Management Plan for guidance on issuing or denying SRP's. SRP requests would be subject to a review of the proposal and compliance with the objectives of the CT 1988 Management Plan to address impacts to recreational opportunities and government facilities.

- *Crime*- Under the No Action Alternative no temporary or long-term increase or decrease in the frequency and type of crimes on CT are anticipated using current SRP authorization protocols.
- *Uncontrolled Dogs*- Under the No Action Alternative the extent of the issues associated with uncontrolled dogs will likely continue unchanged into the foreseeable future.
- *User Group Conflicts*- Under the No Action Alternative the potential for conflicts between user groups on CT remain unchanged and will likely persist into the future.
- *Homeless & Illegal Campers*- Under the No Action Alternative no temporary or long-term changes to existing homeless and illegal camping on CT are anticipated.
- *Wildlife Encounters*- Under the No Action Alternative the potential for recreation users to experience negative encounters with wildlife will remain unchanged.
- *Users in Aviation & Administrative Areas*- Under the No Action Alternative no increase or decrease or temporary or long-term impacts to recreation use of CT aviation assets or administrative areas is anticipated.

3.8.3 Environmental Effects— Proposed Actions & Future Actions

What impacts could the proposed action have on visitor safety and BLM security?

3.8.3.1 Year-Round Single-Track Trail

Developing a narrow year-round multi-use single-track trail will add approximately 1 mile to the CT trail network. The proposed trail corridor would be approximately ½ acre. It would likely have the beneficial effect of dispersing the high volume of visitors CT has experienced over the past 30 plus years. The trail recreation zone would likely benefit from the reduced congestion and traffic. The dispersed recreation zone would likely benefit as the trail is narrower, and the forest environment is far less removed than the wider trails on CT. In addition to preventing user conflict and overcrowding on the Viewpoint Trail, this trail would provide a loop option by connecting to the "Rambone" and the "Stranger" trails. Development of the narrow year-round single-track trail would follow the BMPs described in Appendix H: Project Design Features (PDF's) and Best Management Practices (BMP's).

- *Crime*- The proposed action would have no effect in the frequency and type of crimes on CT.
- *Uncontrolled Dogs*- The proposed action would benefit recreation users' long term as the impact from uncontrolled dogs would be partially mitigated with the option to disperse

use and direct users away from the Viewpoint Trail and the P38 Trail, particularly in winter months when use is funneled primarily to the trail recreation zone.

- *User Group Conflicts*- The proposed action would benefit recreation users' long term as this trail would likely reduce the high volume of visitors and the congestion on the Viewpoint Trail and the P38 Trail during high visitation times and dates, especially during events such as the Tour of Anchorage race as it will provide a means to bypass those routes and connect to other trails throughout the network. During winter months this trail would likely reduce conflict between user groups, particularly with sled dog teams on the P38 trail when it is only open to sled dog teams. Conversely, this trail may provide an opportunity for non-sled dog users to shortcut onto the P38 trail resulting in additional conflict. To mitigate this potential conflict, additional signing would be placed during winter months to warn users to stay off the designated winter sled dog trails during winter.
- *Homeless and Illegal Campers*- The proposed action would have no effect to existing homeless and illegal camping on CT.
- *Wildlife Encounters*- The proposed action would temporarily increase the likelihood of a negative wildlife encounter until wildlife become habituated to humans in the previously undisturbed forested landscape.
- *Users in Aviation and Administrative Areas*- The proposed action would have no effect to the impacts from users in aviation and administrative areas.

3.8.3.2 Trail System Maintenance

The proposed action would implement routine trail and recreation site maintenance activities on CT. Routine trail system maintenance increases public safety and enjoyment by ensuring the natural setting of CT persists into the future through various maintenance activities such as trail surface maintenance, vegetation brushing, and hazard tree removal. The adverse effects to visitors while maintaining trail corridors would be temporary and infrequent as trail maintenance typically occurs on an as needed basis during summer months. The adverse effects to visitors include, but are not limited to, loud noise from motorized equipment, detours or delays for visitor safety, ground disturbance for signpost repair and installation, and detours during trail surface maintenance.

Routine trail system maintenance in the existing disturbed footprint helps to improve and maintain proper trail drainage to prevent ruts, ponding or pooling along the trail surface. Improper unmaintained trails can impact recreation users and can cause trail tread damage and lead to the development of social trails. Social trail development can occur as users avoid obstructed and damaged sections of trail. Social trails fragment the dispersed recreation zone and are often destructive to the surrounding vegetation. Trail system maintenance activities would follow the BMPs described in Appendix H: Project Design Features (PDF's) and Best Management Practices (BMP's).

- *Crime*- With the implementation of the proposed action, crime would likely decrease throughout the trail system as law enforcement officers would have fewer barriers to patrolling the trail system and response times would be enhanced due to improved trail

surfaces and expanded lines of sight. Regularly maintained and updated informational signs and maps will increase recreation user situational awareness and likely reduce trailhead vehicle theft.

- *Uncontrolled Dogs*- Implementation of the proposed action would ensure regular maintenance of the trail system enabling law enforcement officers to patrol recreation trails more efficiently resulting in more frequent educational and enforcement contacts with users accompanied by uncontrolled dogs. Regular trail patrols and maintenance activities by recreation staff will likely facilitate more timely identification and replacement of missing and damaged visitor information and regulation signs enhancing user understanding of unleashed dog rules.
- *User Group Conflicts*- Implementation of the proposed action would ensure regular maintenance of the physical trail system and related informational and regulatory signage. Conflicts between users would be reduced by regular vegetation removal improvements to lines of sight, more timely removal of downed trees and trail hazards, improved trail surfaces promoting safer travel, and regular snow-season grooming providing maximum width of the useable trail surface. Well placed and maintained regulatory signs will enhance user understanding of trail etiquette and recreation site user safety protocols resulting in beneficial effects on visitor safety and security.
- *Homeless and Illegal Campers*- The proposed action would implement regular routine maintenance operations on CT trails resulting in an increased periodic presence of law enforcement and recreation staff on the land. This would result in a beneficial effect on visitor safety and security as BLM staff would be more likely to rapidly identify signs of illegal camping including new social trails, wood smoke, and campsites before serious damage to the land can occur.
- *Wildlife Encounters*- The proposed action would implement regular routine maintenance operations on CT trails including the periodic maintenance of new-growth vegetation in trail corridors. This would result in beneficial effects on visitor safety and security as improved lines of sight would decrease the likelihood of unexpected negative encounters with wildlife throughout the trail system. The maintenance of vegetation along trail corridors would also enhance the ability of wildlife species to hear and see approaching human activity, providing advance warning to move into hiding areas out of the trail corridor.
- *Users in Aviation and Administrative Areas*- The proposed action would implement regular routine maintenance operations on CT trails that would result in a beneficial effect on visitor safety and security. Improvements in trail conditions and the maintenance of signs discouraging recreational use of the aviation and administrative areas would decrease unauthorized use in these areas, reducing the potential for vandalism of government property and safety-related user injuries.

3.8.3.3 E-Bike Types and Authorized Use Areas

The authorization of Class 1 pedal assist E-bikes on CT trails as described in the proposed action would result in positive benefits to visitor safety and security. Through signage and outreach users would clearly understand the specific types of E-bikes that would be allowed on CT trails

and the use of E-bikes in other Classes would be prohibited, resulting in reduced and more appropriate E-bike traffic on CT trails. Authorization of Class 1 pedal assist E-bikes would have the additional beneficial effects of providing healthy exercise and outdoor experiences and recreation opportunities to a larger community of disabled and aging users.

- *Crime*- Implementation of the proposed action would have beneficial effects on visitor safety and security as law enforcement rangers would have clear direction on which classes of E-bikes are authorized or not authorized on CT. This will enable consistent enforcement of E-bike policy which would reduce the use of unauthorized E-bike models on CT trails. The proposed action will also bring CT rules in line with FNBP E-bike rules, reducing E-bike user confusion and promoting regulatory consistency between adjacent land managers.
- *Uncontrolled Dogs*- The authorization of Class 1 E-Bikes on CT trails in the proposed action would have no effect on the issue of uncontrolled dogs on CT.
- *User Group Conflicts*- The authorization of Class 1 E-Bikes on CT trails in the proposed action would have beneficial effects on visitor safety and security by reducing the potential for conflicts on CT trails between authorized recreation uses and operators of prohibited classes of E-bikes. Class 1 E-bikes would be the only models authorized on CT which would reduce potential additional traffic from all other E-bike classes.
- *Homeless and Illegal Campers*- The authorization of Class 1 E-Bikes on CT trails in the proposed action would have no effect on the issue of homeless and illegal camping on CT.
- *Wildlife Encounters*- The authorization of Class 1 E-Bikes on CT trails in the proposed action would have beneficial effects on visitor safety and security by reducing the current range of E-bike users to Class 1 E-bike models only. A reduction in relatively fast-moving and silent Class 2 and Class 3 E-bike use would reduce the potential for unintended encounters between wildlife and CT users.
- *Users in Aviation and Administrative Areas*- The authorization of Class 1 E-Bikes on CT trails in the proposed action would have no effect on the issue of visitor safety in aviation and administrative areas.

3.8.3.4 Winter Only Single-Track Trails

Implementation of the proposed action would incorporate and authorize seasonal development of the existing unmanaged winter only single-track trails in designated corridors would generally result in beneficial effects on visitor safety and security on CT. The addition of these trails to the winter trail network would reduce recreation traffic on many of the currently groomed permanent trails on CT, especially by Fat bike enthusiasts. This would result in a greater dispersal of recreation users over a wider recreational use area, making the entire trail network less prone to user conflicts. Authorization of the existing unmanaged winter only single-track trails would also promote increased interactions with the Fat bike user community providing BLM with expanded opportunities to communicate safety and resource protection information to these users.

- *Crime*- Implementation of the proposed action of authorizing and maintaining the existing unmanaged winter only single-track trails would have no effect in the frequency and type of crimes on CT.
- *Uncontrolled Dogs*- The proposed action would have a small, permanent negative effect on visitor safety and security when recreation users accompanied by uncontrolled dogs enter CT on existing unmanaged winter only single-track trails from connecting trails on adjacent FNBP and Muni lands. This would serve as a vector for uncontrolled dogs coming on to CT and would heighten the likelihood of negative interactions between uncontrolled dogs and pedestrians, skiers, bikers, and equestrians, as well as recreational users with leashed dogs. A potential mitigation measure is for BLM to coordinate with Muni land managers seeking modifications to existing Muni dog regulations that would mirror BLM regulations.
- *User Group Conflicts*- The proposed action of authorizing and maintaining the existing unmanaged winter only single-track trails would enable BLM recreation specialists to take an active role in the placement and maintenance of these seasonal trails. This would result in a beneficial effect on visitor safety and security as BLM would coordinate placement of intersections and crossings between winter only single-track trails and sled dog trails resulting in a decrease in conflicts between these user groups. Additional beneficial effects on visitor safety and security would result from the reduction of Fat bike users on the established winter trail system as more Fat bikers are drawn on to the existing unmanaged winter only single-track trail network. This would remove some of the fast-moving Fat bike traffic from the main trail network and reduce conflicts between slower moving recreation users during the snow season.
- *Homeless and Illegal Campers*- The proposed action would have no effect to existing homeless and illegal camping on CT. Although illegal campers often access camping locations from social trails that originate off the established trail network, none of the proposed winter only single-track trails would be in areas that would facilitate or be conducive to this activity.
- *Wildlife Encounters*- The proposed action of authorizing and maintaining the existing unmanaged winter only single-track trails would have a negative effect on visitor safety and security as these trails introduce increased recreation traffic and use into dispersed recreation zones that may serve as temporary winter refugia for moose. This would increase the potential for negative encounters between recreation users and winter-stressed wildlife. Controlled or uncontrolled dogs accompanying their users into these areas on the existing unmanaged winter only single-track trails may provoke additional negative wildlife encounters negatively impacting visitor safety. These negative effects would only occur during the snow season as the trails would be inaccessible once the ground has thawed.
- *Users in Aviation and Administrative Areas*- Implementation of the proposed action of authorizing and maintaining the existing unmanaged winter only single-track trails would have no effect on visitor safety and security in the aviation and administrative areas on CT.

3.8.3.5 Fuels Management Treatments

Implementation of the two proposed fuels actions would authorize the removal of hazard trees, mostly beetle-killed white spruce that jeopardize user safety near trails and roads, and to perform maintenance on the existing fuel break located on the east boundary of CT adjacent to FNBP. Both proposed actions would provide long-term beneficial effects on visitor safety and security on CT by reducing the safety threat of falling trees and reducing the likelihood and severity of wildland fire incidents. The removal of hazard trees with the potential to fall across and block roads and trails will have a beneficial effect on visitor safety as these trees will be less likely to fall unexpectedly causing injuries to recreation users. Additional safety benefits from the removal of hazard trees include a reduction in injuries to users who must climb over or detour around large fallen trees that unexpectedly impede their path of travel. Hazard trees are most likely to fall during periods of high wind and heavy precipitation events, adding additional user safety challenges during times of already poor trail conditions. Proactive removal of these trees also decreases staff workload necessary to address each fallen tree one by one or many fallen trees after these weather events.

The fuel break treatment would maintain the existing 33-acre fuel break so that it remains effective for fire suppression personnel to access remote areas of CT during emergency incidents. The fuel break is also designed to enable suppression forces to slow or halt the spread of wildland fires onto CT from FNBP as well as onto FNBP from CT land, providing additional wildland firefighting options and increased protection to adjacent neighborhoods and CT recreation features and administrative facilities.

- *Crime*- The proposed action would have a limited beneficial effect on the frequency and type of crimes on CT as the removal of hazard trees and maintenance of the fuel break will afford better visibility and improved line of sight views into to woods adjacent to trailheads, roads, and trails. A better lighted and more open woods environment on CT may encourage individuals with criminal intent to seek targets in less exposed and less frequented public locations.
- *Uncontrolled Dogs*- The proposed fuels management treatments would have no effect on the issues of uncontrolled dogs on CT.
- *User Group Conflicts*- The proposed fuels management treatments would result in long-term beneficial effects on visitor safety and security on CT by improving sight lines and visibility along trails and roads. Improved visibility would reduce unintended collisions and negative interactions between high and low speed recreation users.
- *Homeless and Illegal Campers*- The proposed fuels management treatments would result in long-term beneficial effects on visitor safety and security on CT by improving sight lines and visibility into the woods adjacent to trails and roads. This increased visibility would enhance the ability of BLM law enforcement and recreation staff to discover illegal camps by sight and smell as well as to identify new social trails leading into illegal camp locations.
- *Wildlife Encounters*- The proposed fuels management treatments would result in long-term beneficial effects on visitor safety and security on CT by improving sight lines and visibility into the woods adjacent to trails and roads. This increased visibility would enable wildlife to hear approaching recreationists from greater distances allowing them to

move off the trail and into areas of concealment more rapidly. Conversely, recreation users on roads and trails would have an increased ability to see wildlife such as moose at a greater distance providing more time to stop or take evasive action to promote their personal safety.

- *Users in Aviation and Administrative Areas*- The proposed fuels management treatments would have no effect on the issue of recreational user safety and security in CT aviation and administrative areas.

3.8.3.6 Campbell Airstrip Trailhead (CAT) Parking Area

The proposed action would authorize the construction of a more organized and expanded parking lot at the CAT. Construction of the parking lot would cause temporary negative effects on visitor safety and security that would be most disruptive during the non-snow season. This would require visitors to temporarily park at alternative trailheads which has the potential to cause congestion and additional safety issues at these temporarily overburdened receiving parking lots. The effects would be mitigated by advance notification to the public and close coordination with the MOA to post appropriate messaging and signs prior to construction. Signs would detour users to alternative parking locations during the construction period to enable them to continue to recreate on CT and FNBP lands and trails. Expanded law enforcement patrols by both BLM and Muni police would help manage the safety and security issues associated with the increased use at receiving trailheads.

The long-term beneficial effects to visitor safety and security include a safer trailhead experience as the parking lot will be paved, striped, signed, and have a logical traffic flow. In addition, improvements in area lighting, security cameras, and other safety features would enhance visitor trailhead security.

- *Crime*- The proposed action of expanding the CAT parking lot would have long term beneficial effect on visitor safety and security by reducing the potential for trailhead crimes. Features that will promote this reduction include the installation of lighting that will provide illumination of the area throughout the long Alaskan winter dark season and video surveillance that will deter some criminals and facilitate the prosecution of others. The new proposed parking lot will greatly expand the number of user vehicles increasing the odds of a greater user presence in the parking lot at any one time further discouraging vehicle break-ins and personal crimes. The striping and establishment of organized parking spaces would improve pedestrian safety as users move from the parking lot to the trailhead and back and improved directional and regulation signage would be inform users of traffic patterns and CT safety information. The increased lighting and vegetation maintenance at the proposed trailhead would also improve visibility of the CAT from Campbell Airstrip Road enhancing law enforcement surveillance patrol effectiveness.
- *Uncontrolled Dogs*- The proposed action of expanding the CAT parking lot would have a beneficial effect of the issue of uncontrolled dogs as the increased visibility resulting from an efficient parking lot design would ensure that dog leash regulatory signs are clearly visible to all users as they enter the trail system.
- *User Group Conflicts*- The proposed action of expanding the CAT parking lot would have a long-term beneficial effect in the reduction of user group conflicts by ensuring that

day-to-day trailhead safety and informational signage, as well as situational wildlife warning and special event signs are visible to all users entering the trailhead and not obscured by the current issues of haphazardly parked vehicles.

- *Homeless and Illegal Campers*- The proposed action of expanding the CAT parking lot would have a long-term beneficial effect in the reduction of illegal overnight parking and trailhead camping at the CAT. The addition of lighting organized and striped parking spaces, and prominent video cameras would help to discourage this activity. The increased lighting and vegetation maintenance at the proposed trailhead would also improve visibility of the CAT from Campbell Airstrip Road enhancing law enforcement surveillance patrol effectiveness.
- *Wildlife Encounters*- The proposed action of expanding the CAT parking lot would have a long-term beneficial effect in the reduction of negative wildlife encounters on CT as trailhead educational Bear Awareness information and temporary, incident-based wildlife warning signs would be more visible to users entering the trailhead due to better lighting and a more organized parking lot.
- *Users in Aviation and Administrative Areas*- The proposed action would have no effect on visitor safety and security associated with recreation users in CT aviation and administrative areas.

3.8.3.7 Recreation Permit Authorizations

The proposal action would authorize BLM to provide a venue for commercial and competitive SRP activities and events on CT that would not impact the recreation experiences and safety and well-being of other recreation users. Permitted events on CT can result in temporary negative safety impacts on other recreation users due to shared trail interactions including large groups of competitive ski or bicycle riders moving at high speeds amid normal recreation user traffic. The negative effects would be mitigated by following RSCs on a case-by-case basis to address group sizes, frequency of events, conflicting dates of events (to prevent multiple events overlapping and ensuring events occur outside of high visitation days and times), the time events occur, the number of events, as well as the event route.

Long-term, permanent beneficial effects to visitor safety and security would occur from the professional and thoughtful management of SRP authorizations on CT. Well planned and implemented permitted activities and events on CT address the safety concerns of event participants and the general visiting public resulting in reduced conflict potential and positive user outcomes. Close communication between permitting staff and event organizers, the development and implementation of specific safety stipulations, and active compliance by BLM during all stages of a permitted activity help ensure that participant and bystander safety and security are paramount.

- *Crime*- The proposed action of authorizing SRPs on CT would have no effect in the frequency and type of crimes on CT.
- *Uncontrolled Dogs*- The proposed action of authorizing SRPs on CT would have no effect to the issues of uncontrolled dogs on CT.

- *User Group Conflicts*- The proposed action of authorizing SRPs on CT would result in permanent, long-term beneficial effects in the reduction of conflicts between regular users and participants in permitted activities. As permit applications are received, BLM staff would work closely with the potential permitees to discuss the proposed activity addressing the type of event, number of participants, proposed route, and timing. BLM would consider this information, along with the permitee's past record of managing and leading activities and perform an analysis of the impacts of the proposed activity and make recommendations to the field manager on the whether the activity can safely and legally be approved. An important element of this analysis is considering the safety impacts on other recreation users on CT and the identification of specific routing and safety stipulations that would minimize the potential for conflicts with other users and uses.
- *Homeless and Illegal Campers*- The proposed action of authorizing SRPs on CT would have no effect on homeless and illegal camping on CT.
- *Wildlife Encounters*- The proposed action of authorizing SRPs on CT would result in permanent, long-term beneficial effects on reducing encounters between wild animals and permitted users. The CT Wild Animal Response Policy outlines specific safety requirements and stipulations that must be included in all SRP authorizations including bear awareness training, use of bear deterrent spray, group size requirements, carrying of communication devices and emergency reporting procedures. SRP organizers are encouraged to watch bear safety videos as they plan and prepare for their activities and to fully brief participants on all safety concerns and stipulations associated with the activity.
- *Users in Aviation and Administrative Areas*- The proposed action of authorizing SRPs on CT would result in beneficial effects to visitor safety and security in aviation and administrative areas on CT as permits would clearly define the areas in which the permitted activities can occur. Stipulations would be developed for each permitted activity that dictate what areas of CT are appropriate for a given use and would address any specific safety requirements associated with these areas. As an example, if an SRP was issued for a sled dog race that utilized the Campbell Airstrip, specific stipulations would be included on the permit addressing the potential for emergency landings of aircraft.

4 Consultation and Coordination

4.1 Summary of Consultation and Coordination

4.1.1 Municipality of Anchorage

CT shares a boundary on three sides with the MOA's FNBP, the fourth being Elmore Road. The BLM has a 30+ year working relationship with the MOA to manage the CT and FNBP to create a seamless recreational experience for the public user. Since 1987, the BLM has had a CMA with the MOA to coordinate and consult on CT-FNBP issues (BLM & MOA, 1987) and both parties have mutually agreed that:

- MOA and BLM will meet a minimum of twice per year to discuss cooperative management of the FNBP/Campbell Tract complex.
- Pertinent publications produced by either party will recognize the cooperative management agreement.
- Development of a cooperative recreation sign program of the designated trail system will be initiated upon signature of this agreement.
- Any construction of the trails or facilities related to the designated trail system on or immediately adjacent to the Campbell Tract will be planned and performed in a cooperative manner.

4.1.2 CT/FNBP User Group

CT/FNBP User Group meetings are hosted by both the BLM and MOA Parks & Recreation Dept. These meetings have been ongoing for decades and provide regular communication between the managing agencies and public land users. The meetings used to occur monthly from September through April to cover the busy winter trail use months when trail conflicts were highest, and coordination of winter trail events was most needed. They have become quarterly meetings more recently. The user groups who have historically had representation at these meetings include ASDRA, STA, Equestrians, Arctic Orienteering Club, neighborhood residence, hikers, bikers, as well as other public members. The current CT/FNBP User Group meeting email notification list includes notification to 90+ individuals or organizations.

In April 2021, the BLM announced at the CT/FNBP User Group meeting they would start to develop the CT RAMP. All 90+ user group members were notified via email about a planned public scoping meeting for May 2021.

In October 2021 at the CT/FNBP User Group meeting, the BLM and MOA received questions and feedback related to fuels management treatments and the existing unmanaged winter only single-track trails from those in attendance (one member of the public and an individual representing the Arctic Orienteering Club).

From many past CT/FNBP User Group meetings, the issue of the existing unmanaged winter only single-track trails has been a frequent issue discussed. Generally, there is concern about the winter only single-track trails evolving into summer trails. Many of these winter trails however, travel across swamps and marshes like the designated winter sled dog trails and therefore, could not become usable summer trails. BLM continues to monitor for summer impacts related to these winter trails and has observed no summer use or impacts from the winter only trails during summer months. The CT/FNBP User Group recognizes the dramatic increase of winter fat tire bike users and their desire to travel off the busier designated trails to avoid the congestion and have a different experience. Additionally, the CT/FNBP User Group recognizes that management needs to address the fast-growing winter fat bike activity and pressure on existing trails. Additional reoccurring topics are complaints related to off leash dogs and trail head vehicle break ins. User group members consistently ask what BLM is doing about off leash dogs on CT. Trailhead crime has reached a point in the Anchorage area that users have created social media pages to inform users about recent trailhead crime. BLM has shared, with the user group, success stories of criminal prosecutions related to these trailhead crimes. User group members

have supported the ideas of trailhead safety improvements and requested increased law enforcement patrols for these issues.

4.1.3 Other Organizations

The BLM recreation program contacted the MOA, FNBP Park & Recreation partner as that is the sole agency BLM shares a boundary with. CSP was not contacted specifically about this recreational planning process. BLM and CSP have recently coordinated about recreational issues outside the scope of this planning document. Some BLM resource staff regularly collaborate with local, state, and other federal agencies. No specific meetings were held outside the recreational based meetings for CT.

In May of 2021 BLM formally invited the Native Village of Eklutna tribal government, the Eklutna, Inc. Alaska Native Corporation, and the Cook Inlet Region, Inc. (CIRI) Alaska Native Corporation for consultation and collaboration in the development of the CT RAMP and EA.

4.2 Summary of Participation

A primary goal of the RAMP planning process is to address the growing and changing recreation use on CT. Through CT/FNBP User Group meetings, CT monitoring, volunteer, and public reporting, it was determined that much of the recreation management was working on CT but there were issues that need to be addressed.

4.2.1 Internal Scoping Issue identification

The BLM met internally to discuss common issues experienced at the CT. The following list represents issues that BLM staff identified as important for the RAMP to address into the future as well as present to the public for feedback.

4.2.1.1 Recreation

- Is the existing multiple use trail system on Campbell Tract adequate? (number, width, diverse use types, signage)
- How can the BLM better inform the public on current topics related to Campbell Tract? (Safety, regulations and rules, resource protection, recreation and education opportunities, special events)
- Should Campbell Tract reserve existing natural wooded areas as trail-less?
- Should Campbell Tract support the authorization and management of a seasonal, winter only single-track trail system? (existing unmanaged winter only single-track trails)
- What existing recreation uses may no longer be compatible on Campbell Tract and/or are their new uses we should plan for?
- Should BLM promote summer use of designated winter sled dog trails on Campbell Tract?
- How should BLM manage E-bikes on Campbell Tract? (where, when, how many)

- How should BLM manage existing and future social trails on Campbell Tract?
- What competitive activities should BLM permit on Campbell Tract? (races, geocache events, orienteering)
- Should the number of permitted competitive events on Campbell Tract be limited or expanded?
- What commercial activities should BLM permit on Campbell Tract? (vending, survival and emergency services training, outdoor education)
- What types of private events should BLM permit on Campbell Tract? (weddings, group events)

4.2.1.2 Resources

- What resource management needs should be addressed on Campbell Tract? (forestry, wildlife, habitat, watershed)
- What cultural, natural history, safety and resource protection interpretive information should BLM provide on CT?
- What research studies and projects should be supported on CT? (internal and external)

4.2.1.3 Administrative/Other

- How do aviation operations on Campbell Tract impact recreation activities?
- What facilities or improvements are needed on Campbell Tract? (roads, parking lots, signage
- What community emergency operations should be supported on CT? (wildland fire, earthquake, FEMA staging and support)
- In what ways can LE best protect CT visitors, lands, and resources?
- How can leash laws be best enforced by LE?

4.2.2 External Scoping and Comments

The CT provides year-round recreation and wildlife viewing opportunities to over 400,000 visitors annually and has a long history of hosting trail user group meetings to plan for and address trail issues therefore, the BLM desired public input prior to developing the RAMP and EA. The BLM wanted to learn the public's input on the issues BLM presented as well as other issues the public might have raised. This section outlines the external scoping process BLM conducted from May 14 to June 11, 2021, the comments received, the issues identified, and how they were addressed in the EA.

Public outreach for the external scoping conducted as part of the development of the RAMP included:

- Numerous CT/FNBP User Group meetings (Section 4.1.2)
- Stakeholder Emails - In April 2021, the BLM announced at the CT/FNBP User Group meeting they would start to develop the CT RAMP. All 90+ user group members were notified via email about a planned public scoping meeting for May 2021.
- Formal Letters to CIRI, Eklutna, Inc., and the Native Village of Eklutna May 2021.
- BLM News Release May 14, 2021
- BLM-Alaska Social Media postings that were shared by local groups shared BLM's news release for public meetings
- BLM National NEPA Register project page: maps, presentations, comment section
- May 24, 2021, virtual Zoom public scoping meeting, 10 attended
- May 26, 2021, virtual Zoom public scoping meeting, 8 attended

The May 24 and 26, 2021 virtual public scoping meeting presentation offered a background and history of CT, an overview of the types of administrative and recreation use, and the current physical setting of CT. It also presented the following issues for public input as well as requested identification of other issues on CT.

4.2.2.1 Recreation Scoping Issues

BLM Recreation staff developed this list of scoping issues from past user group meetings and regulatory E-bike changes for BLM.

- What are the impacts of E-bikes on Campbell Tract?
- How would the use of the winter only single-track trails impact other users?
- What commercial activities should be permitted on Campbell Tract?
- Should the recreational trail network be expanded or modified?

4.2.2.2 Scoping Comments Received and Issues Identified

During the virtual public meetings, the BLM mostly answered questions that related to the NEPA scoping process and the development of a RAMP. The BLM explained public scoping and that a future Draft RAMP/EA would be available for public review and the EA for public comment.

During the May 26, 2021, public meeting, two people commented about a desire for an alternative trail near "antenna hill", Viewpoint Trail, Tour of Anchorage Trail. The Proposed Action for a Year-Round Single-Track Trail was developed from these comments. One written comment with a proposed route map was also submitted about this trail.

Other topics and comments during the virtual meetings included:

- Stressed the importance of BLM & FNBP Coordination for allowed uses, signs, and maintenance.
- Positive comments about E-bikes and mention of ADA.
- 68th Road & BLM entrance project delays (Project was planned for 2018).
- Alternative trail near "Antenna Hill"
- Questions if BLM had plans to increase use of CCSC or the airstrip.
- Funding sources for future CAT parking area.
- Questions about use of QR Codes for education and maps (BLM's direction has recently changed).

The public scoping comment period was open for 30 days from May 15 to June 15, 2021. The BLM received 17 comments: 10 submitted on the BLM NEPA Register website and eight e-mails. These comments were analyzed to determine the following _____ outlined below with how the related issue was addressed in the EA.

1. Unorganized, poorly maintained, and not enough parking
    - EA Section 2.2.6 Proposed Action: CAT Parking Area
    - EA Sections 3.1.1.1 discusses this issue
2. Support for more law enforcement presence
    - EA Section 3.8 discusses this issue
3. General Trail Maintenance (wayfinding comments, maps, signs, trail surfaces,
    - EA Section 2.2.2 Proposed Action: Trail System Maintenance
4. Opposition to new trail networks and E-bikes
    - EA Sections 3.1.2.2, 3.1.2.3 discusses this issue
    - EA Sections 3.1.3.2, 3.1.3.3 discusses this issue
5. Maintain Fishing Access
    - EA Section 3.7 discusses this issue
6. Wildlife Encounters and Safety
    - EA Section 3.8.1 discusses this issue
7. Uncontrolled or unleased dogs
    - EA Section 3.8 discusses this issue
8. General support of the use of E-bikes (pedal assist only), opposition to full throttle (class 3) was not supported.
    - EA Section 2.2.3 Proposed Action: E-bike Types and Authorized Use Areas

9. General support of the existing unmanaged winter only single-track trails, support for winter groomer
    - EA Section 2.2.4 Proposed Action: Winter Only Single-Track Trails
    - EA Section 2.2.2 Proposed Action: Trail System Maintenance
10. Opposition to current or future use of winter only single-track trails due to concerns over evolving into summer trails
    - EA Section 3.1.3.4 discusses this issue
11. Support of single-track trails
    - EA Section 2.2.1 Proposed Action: Year-Round Single-Track Trail
12. General comments related to public safety, public access, and natural and/or cultural resource protection
    - EA Section 3.8 general discussion of related topics in Visitor Safety and Security
13. Create an alternate downhill trail near antennae hill to address steep grade and runoff
    - EA Section 2.2.2 Proposed Action: Trail System Maintenance
    - EA Section 2.2.1 Proposed Action: Year-Round Single-Track Trail
14. General comments in support of BLM's past and current recreation management on CT
    - EA Section 1.0 general background and history
    - EA Section 3.1.1 general current situation

4.2.3 Draft Environmental Analysis Comment Opportunity

With the release of this Draft EA for public viewing, there is an associated 30-day public comment period, online open house, and two virtual public meetings. Public comment will be accepted on the EA. The virtual public meetings about the Campbell Tract Draft RAMP/EA will allow the BLM to review with the public: the scoping comments received; the issues identified; the proposed actions developed in the preferred alternative to address the issues into the future; an introduction and walkthrough of the EA document and where to review the analysis of the proposed actions; how to find, review, and; how to provide useful substantive comment online on the BLM National NEPA register.

Notification of the opportunity to review and comment on the Draft RAMP/EA will be provided by:

- February 2022 CT/FNBP User Group meeting
- March 4 BLM News Release
- Social Media BLM-Alaska postings

- March 21 Opening of Online Open House on BLM NEPA Register Project website with documents, maps, and public meeting presentation materials
- Emails to Stakeholder FNBP user group list, 90+ members with linked Social Media postings for sharing with broader user group memberships
- Formal Letters to CIRI, Eklutna, Inc., and the Native Village of Eklutna
- March 22, 2021, virtual Zoom public scoping meeting
- March 24, 2021, virtual Zoom public scoping meeting

4.2.4 Changes from Draft to Final

After the Draft EA comment period closes, substantive comments will be analyzed and identify the issues raised. The BLM will indicate how they responded to each issue in a table provided in an appendix in the Final EA document. The response will detail either (1) an indication as to how the EA is changed and include the change made in the document, or (2) an explanation as to why the comment did not warrant a change to the document. If there are no significant impacts from the Preferred Alternative, a Finding of No Significant Impact (FONSI) and a decision record (DR) is signed to approve the Final RAMP/EA. All documents are published on the same project page on the BLM National NEPA register, and all stakeholders notified.

Once the decision record is finalized and signed, the proposed management actions outlined in the Final RAMP are effective immediately and require no additional formal planning or NEPA analysis. All site-specific resource surveys would be completed prior to implementation of ground disturbing activities. All implementation activities will follow the Project Design Features and Stipulations set forth in Appendix H. Following implementation, the effectiveness of the management actions toward meeting goals and objectives would be monitored.

5 List of Appendices

Appendix A—List of Preparers

Appendix B—Table of Issues and Resources Considered

Appendix C—Acronyms and Abbreviations

Appendix D—List of References

Appendix E—Maps

Appendix F—Figures – as needed

Appendix G—Tables – as needed

Appendix H—Project Designs Features and Stipulations

6 Appendix A: List of Preparers

Name	Title	Resource Area
Scott Justham	Outdoor Recreation Planner	Recreation AFO
Stolf Short	Outdoor Recreation Planner	Recreation AFO
Douglas Ballou	Assistant Field Manager, Resources Branch	Resources Manger AFO
Jorjena Barringer	District NEPA Planner	ADO
Bonnie Million	Field Manger 2021-1/13/2022	Field Manager AFO
Thomas Sparks	Acting Filed Manager 1/14/2022 - Present	Acting Field Manager AFO
Zach Million	Outdoor Recreation Planner	State Office Recreation Lead
Francis Marley	HAZMAT Coordinator	Wastes, Hazardous or Solid
Aliza Segal	Ecologist	Vegetation

Name	Title	Resource Area
Katie Freeman	Realty Specialist	Lands
Amanda Disman	Fuels Management Specialist	Fire/Fuels ADO
Ben Seifert	Fire Management Specialist	Southern Fire Management Zone
Jenny Blanchard	Archaeologist	Cultural Resources
Ben Stratton	Hydrologist	Hydrology
Merlyn Schelske	Fish Biologist	Fisheries
Craig Townsend	Wildlife Biologist	Wildlife
Paxton McClurg	Geographer	Division of Lands GIS
Walker Gusse	Park Ranger	ADO Law Enforcement

7 Appendix B: Table of Issues and Resources Considered

This table provides an extensive list of issues, resources and uses for which issues may arise. Each office should carefully modify this table to include issues, resources, or uses that are "**present**" within the administrative boundary of the unit. If resources on the table are not present in the general area the office manages then the non-present issues can be deleted from the table. Also be sure to add any issues unique to that office.

If any issue, resource or use topic does not have a subject matter expert on the IDT, it is the role of the project lead and/or assistant FMs to give that resource careful consideration. Project leads are encouraged to consult with state, zoned, or national office subject matter experts if there is any uncertainty on whether a resource or use is present and/or affected.

Determination*	Issue	Rationale for Determination
NI	Visual Resources	present, but not affected to a degree that detailed analysis is required. Refer to Section 1.8

Determination*	Issue	Rationale for Determination
NI	Air Quality	present, but not affected to a degree that detailed analysis is required. Refer to Section 1.8
NI	Administrative (Lands & Realty, Aviation, Warehouse, Maintenance)	present, but not affected to a degree that detailed analysis is required. Refer to Section 1.8
NI	Areas of Critical Environmental Concern	present, but not affected to a degree that detailed analysis is required. Refer to Section 1.8
NI	Environmental Justice	present, but not affected to a degree that detailed analysis is required. Refer to Section 1.8
NI	Subsistence	present, but not affected to a degree that detailed analysis is required. Refer to Section 1.8
NI	Threatened and Endangered Species	present, but not affected to a degree that detailed analysis is required. Refer to Section 1.8
NI	Campbell Creek Science Center	present, but not affected to a degree that detailed analysis is required. Refer to Section 1.8
NI	Wildland Fire (Fuels and New Fuel Breaks)	present, but not affected to a degree that detailed analysis is required. Refer to Section 1.8
PI	Recreation & Visitor Services	Present, may be impacted, and analyzed in affected environment and environmental effects Section 3.1
PI	Forest Health and Fire/Fuels Management	Present, may be impacted, and analyzed in affected environment and environmental effects Section 3.2
PI	Wildlife	Present, may be impacted, and analyzed in affected environment and environmental effects Section 3.3
PI	Historical, Cultural, Paleontological	Present, may be impacted, and analyzed in affected environment and environmental effects Section 3.4
PI	Vegetation (includes invasive, non-native species)	Present, may be impacted, and analyzed in affected environment and environmental effects Section 3.5
PI	Hydrology	Present, may be impacted, and analyzed in affected environment and environmental effects Section 3.6
PI	Fisheries	Present, may be impacted, and analyzed in affected environment and environmental effects Section 3.7

Determination*	Issue	Rationale for Determination
PI	Visitor Safety & Security	Present, may be impacted, and analyzed in affected environment and environmental effects Section 3.8

*NP = not present in the area impacted by the proposed or alternative actions.

NI = present, but not affected to a degree that detailed analysis is required.

PI = present and may be impacted. Will be analyzed in affected environment and environmental effects. For consistency, the term 'effects' is used throughout the EA, but we use the term 'impacts' just in this table. (NOTE: PI does not necessarily mean effects are likely to be significant, only that there are effects to this issue, resource, or use. Significance will be determined through analysis and documented in a Finding of No Significant Impact or Environmental Impact Statement.)

8 Appendix C: Acronyms and Abbreviations

ACCS	University of Alaska Center for Conservation Science
AD	Anno Domini
ADA	Americans with Disabilities Act
ADO	Anchorage District Office
ADF&G	Alaska Department of Fish & Game
ADNR	Alaska Department of Natural Resources
ACEC	Area of Critical Environmental Concern
AFO	Anchorage Field Office
ANC	Anchorage
ANCSA	Alaska Native Claims Settlement Act
AO	Authorized Officer
APE	Area of Potential Effect
AQ	Air Quality
ASDRA	Alaskan Sled Dog & Racing Association

ARPA	Archaeological Resources Protection Act
ATV	All-Terrain Vehicle
AWFCG	Alaska Wildland Fire Coordinating Group
AZ	Administrative Zone
BBCS	Bird and Bat Conservation Strategy
BCC	Birds of Conservation Concern
BLM	Bureau of Land Management
BMP	Best Management Practice
CAT	Campbell Airstrip Trailhead
CCSC	Campbell Creek Science Center
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CMA	Cooperative Management Agreement
CSP	Chugach State Park
CT	Campbell Tract
CTF	Campbell Tract Facility
CTTM	Comprehensive Trails and Travel Management
CWD	Course Woody Debris
CX	Categorical Exclusion
DM	Departmental Manual
DNA	Determination of NEPA Adequacy
DOI	Department of the Interior
DR	Decision Record
EA	Environmental Assessment

EEFZ	Environmental Education Facility Zone
EIS	Environmental Impact Statement
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Endangered Species Act
ESD	Ecological Site Description
FC	Fecal Coliform
FLPMA	Federal Land Policy Management Act of 1976, as amended
FNBP	Far North Bicentennial Park
FONSI	Finding of No Significant Impact
GAOA	Great American Outdoors Act
GIS	Geographic Information Systems
IB	Information Bulletin
IDT	Interdisciplinary Team
IM	Instruction Memorandum
KOP	Key Observation Point
LE	Law Enforcement
LUP	Land Use Plan
MAAT	Mean Annual Air Temperature
MAP	Mean Annual Precipitation
MBTA	Migratory Bird Treaty Act of 1918
MFP	Management Framework Plan
MOA	Municipality of Anchorage
NAGPRA	Native American Graves Protection and Repatriation Act

NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NHT	National Historic Trails
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NSAA	Nordic Skiing Association of Anchorage
OHV	Off-Highway Vehicle
PFC	Proper Functioning Condition
P.L.	Public Law
RAC	Resource Advisory Council
RAMP	Recreation Area Management Plan
RFFA	Reasonably Foreseeable Future Action
RMP	Resource Management Plan
RMIS	Recreation Management Information System
ROD	Record of Decision
ROP	Required Operational Procedures
ROW	Right-of-way
SHPO	State Historic Preservation Office
SJ	Smoke Jumper
SO	Secretarial Order
SRMA	Special Recreation Management Area
SRP	Special Recreation Permit
STA	Single Track Advocates

T&E	Threatened and Endangered
US	United States
US AID	
U.S.C.	United States Code
USFS	United States Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geologic Survey
VRI	Visual Resource Inventory
VRM	Visual Resource Management
WUI	Wildland Urban Interface
WWII	World War II

10 Appendix D: List of References

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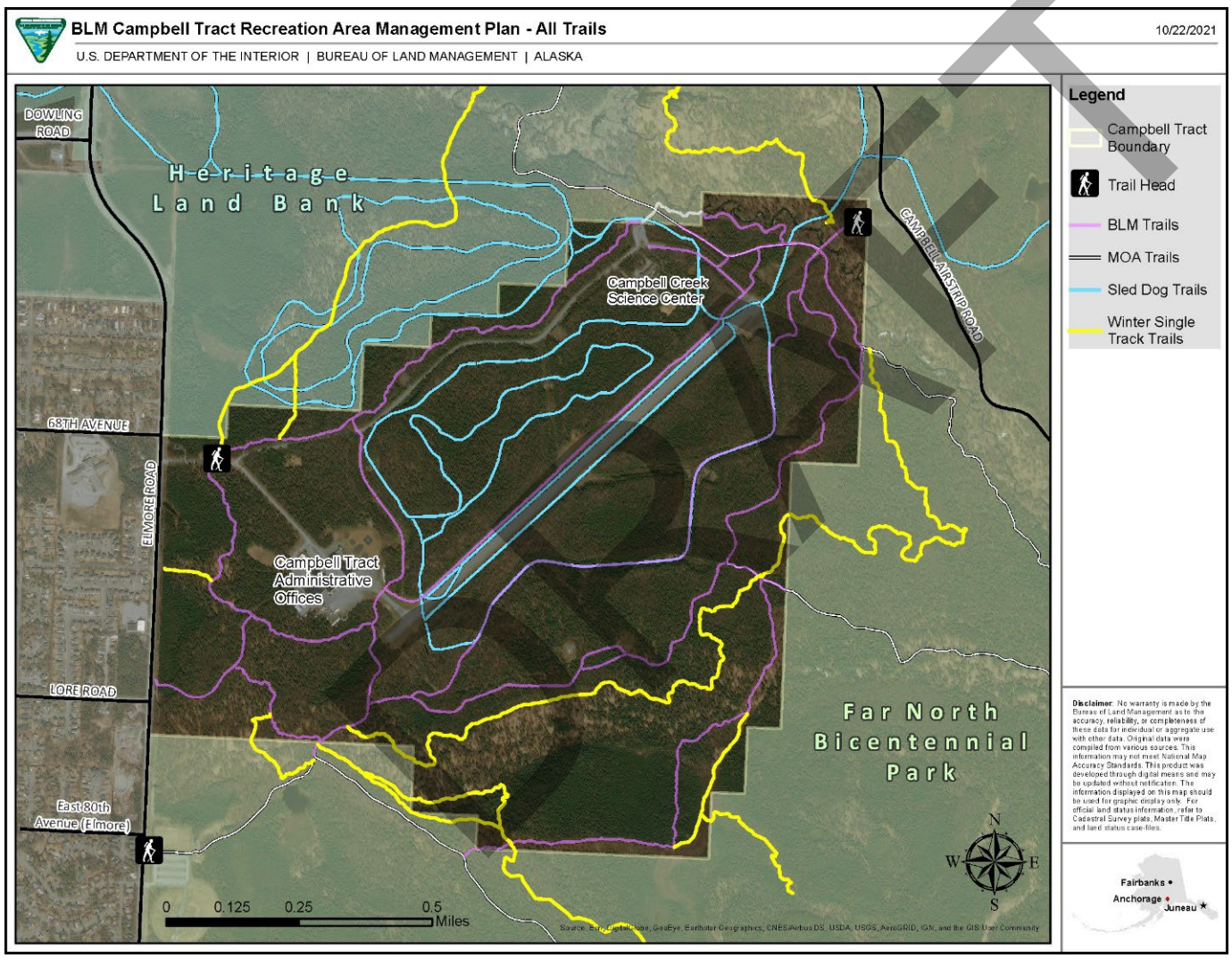
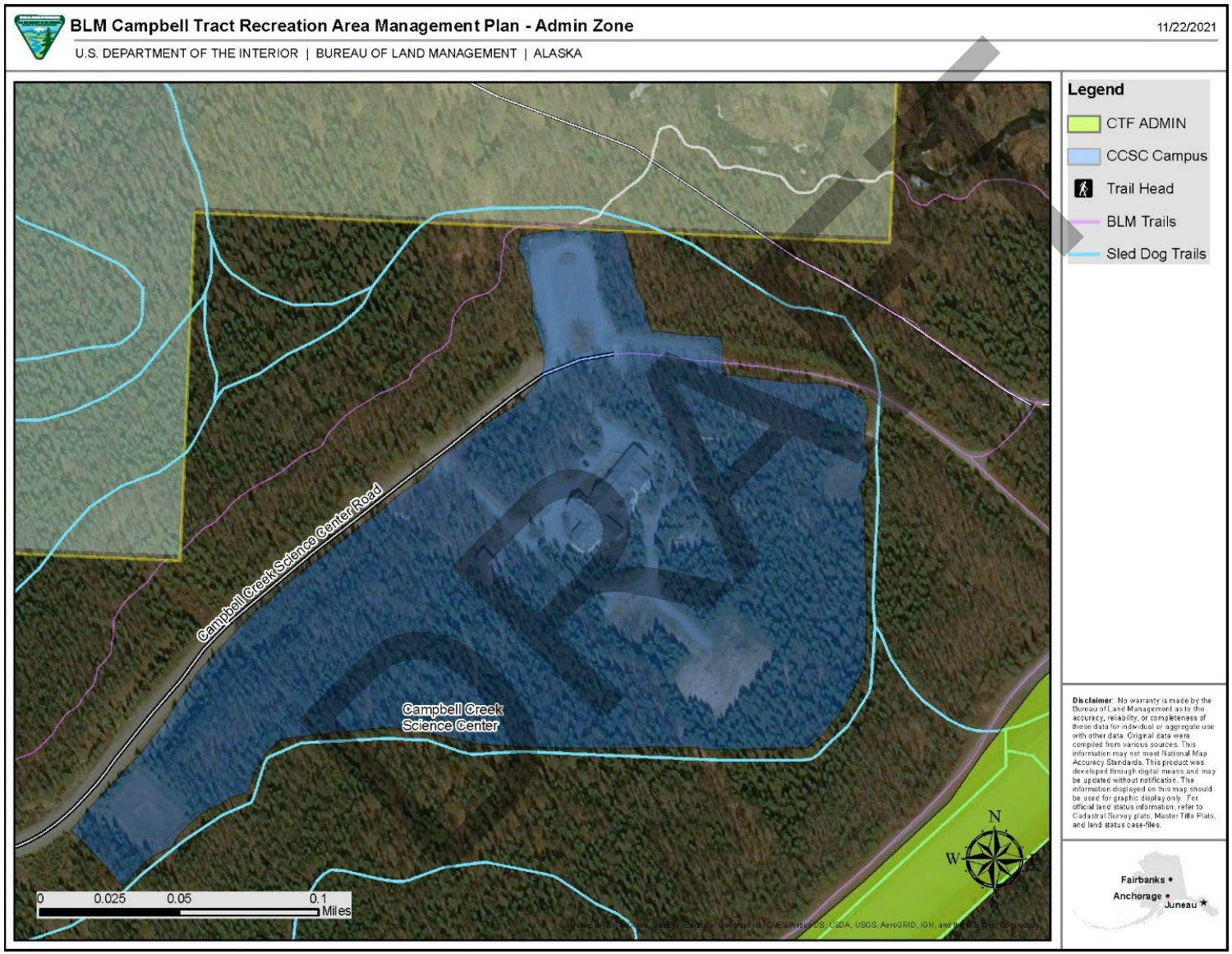
11 Appendix E: Maps

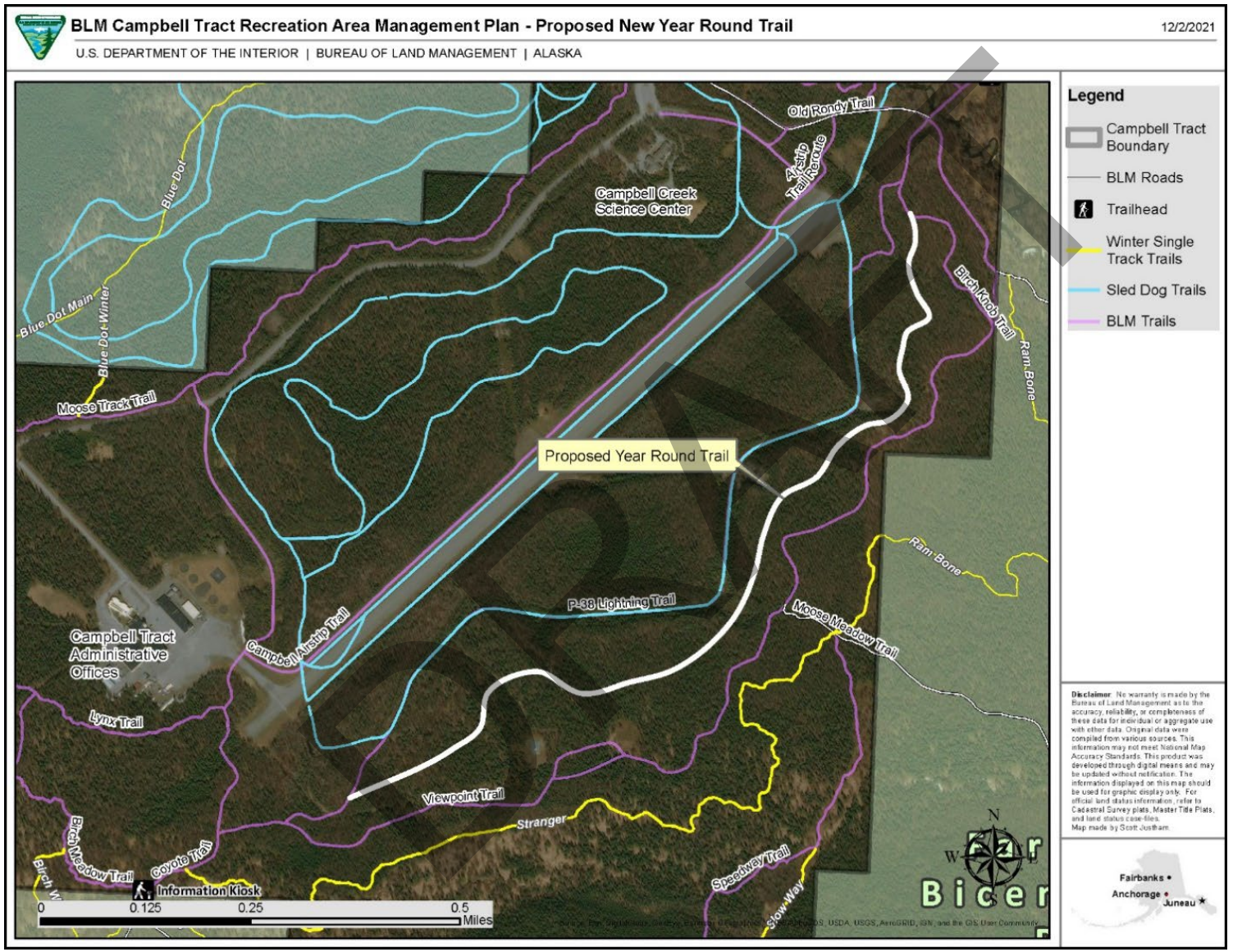
11.1Map #1 BLM CT Multi-Use Trails, Winter Single-Track Trails, Sled Dog Trails



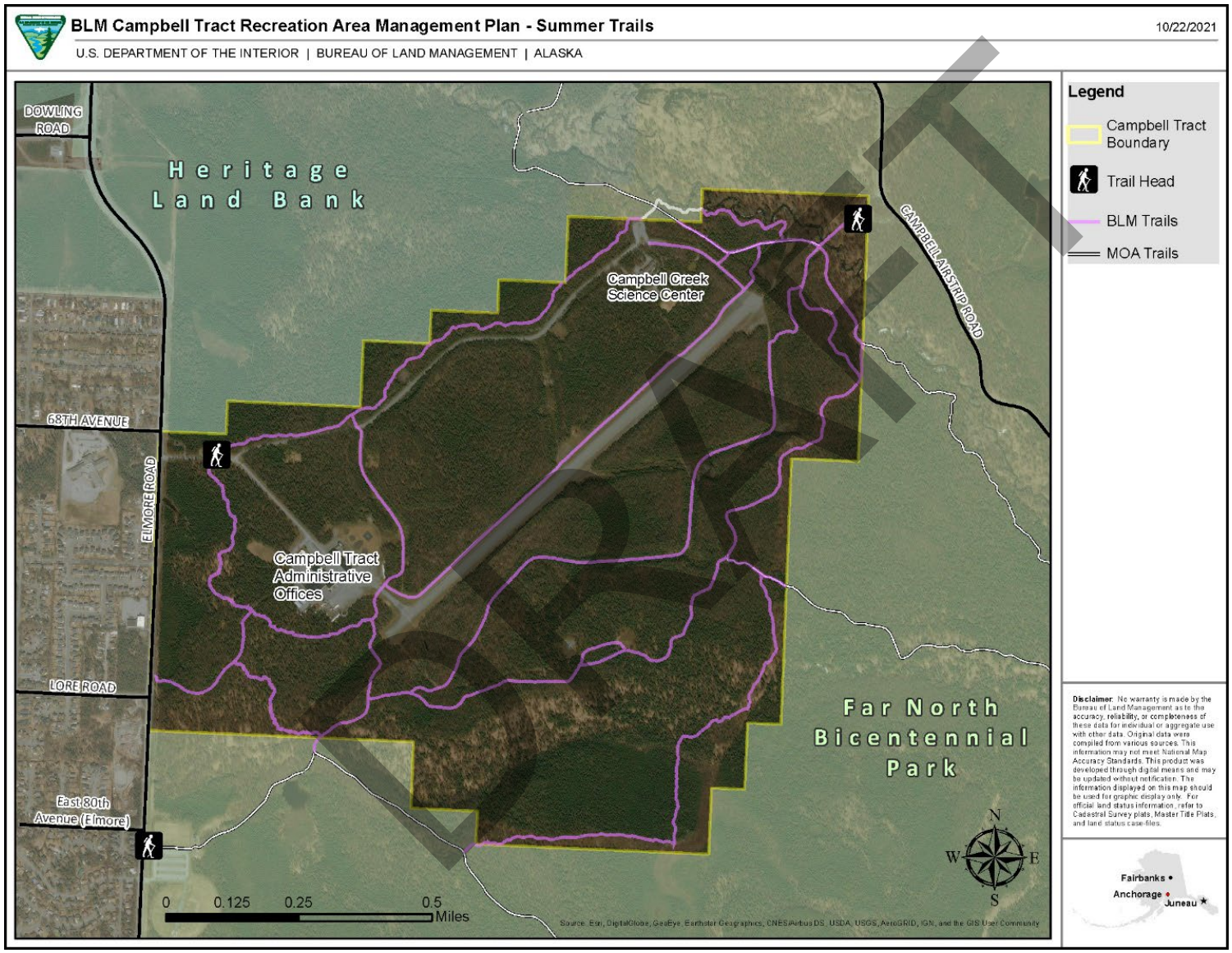
11.2 Map #2 Environmental Education Facility Zone (CCSC)



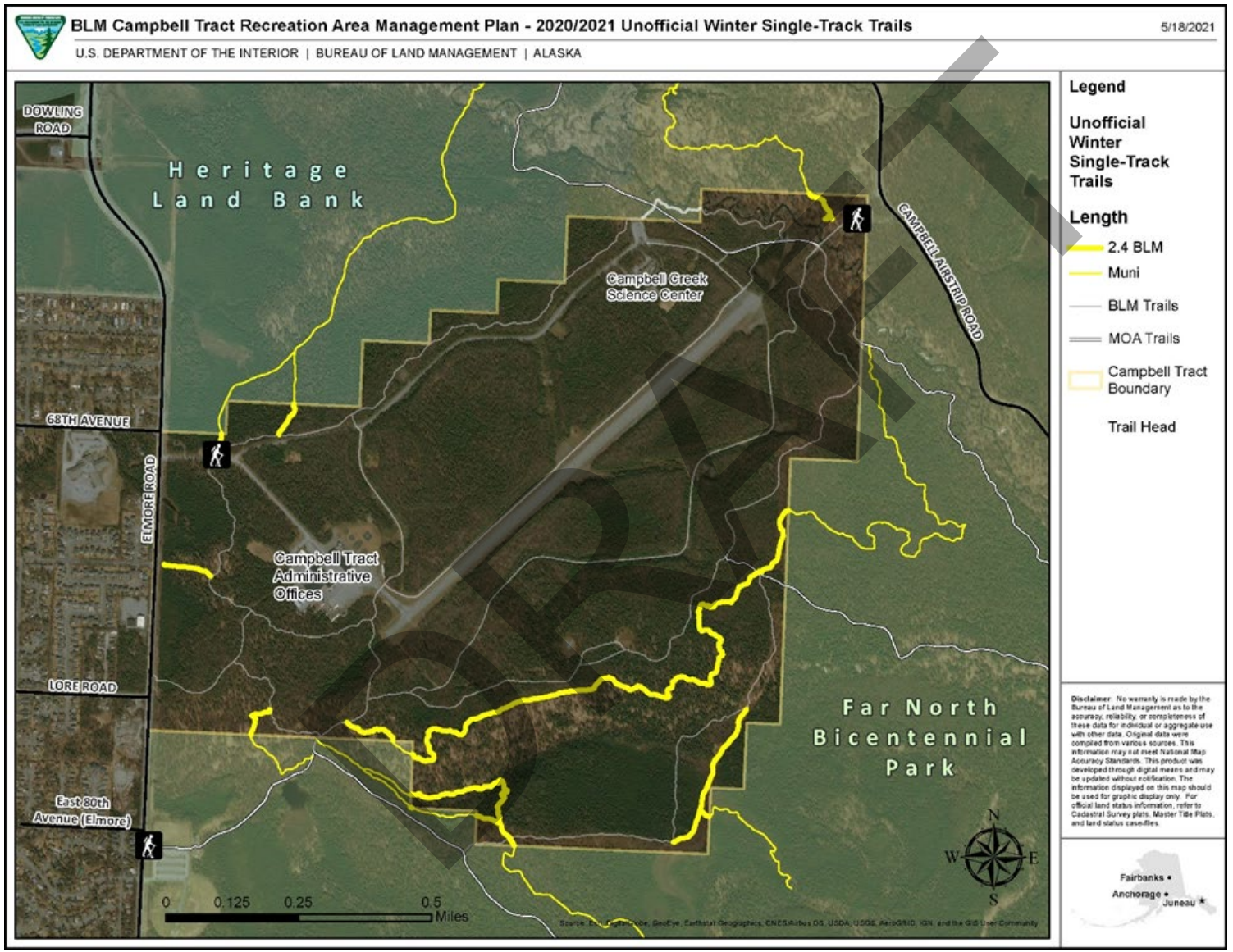
Map #3 BLM Proposed New Year-Round Trail



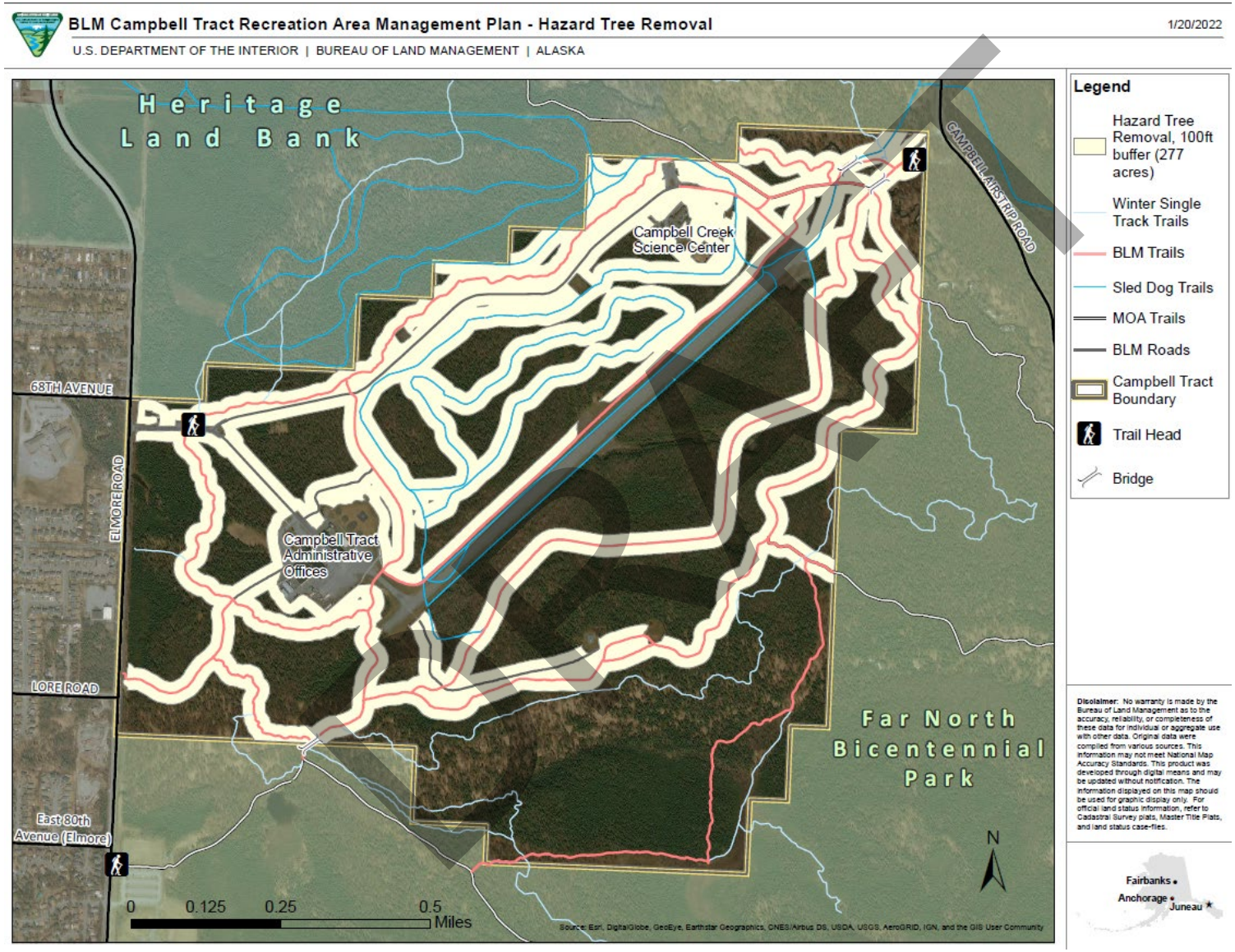
11.3 Map #4 BLM CT Summer Trail System



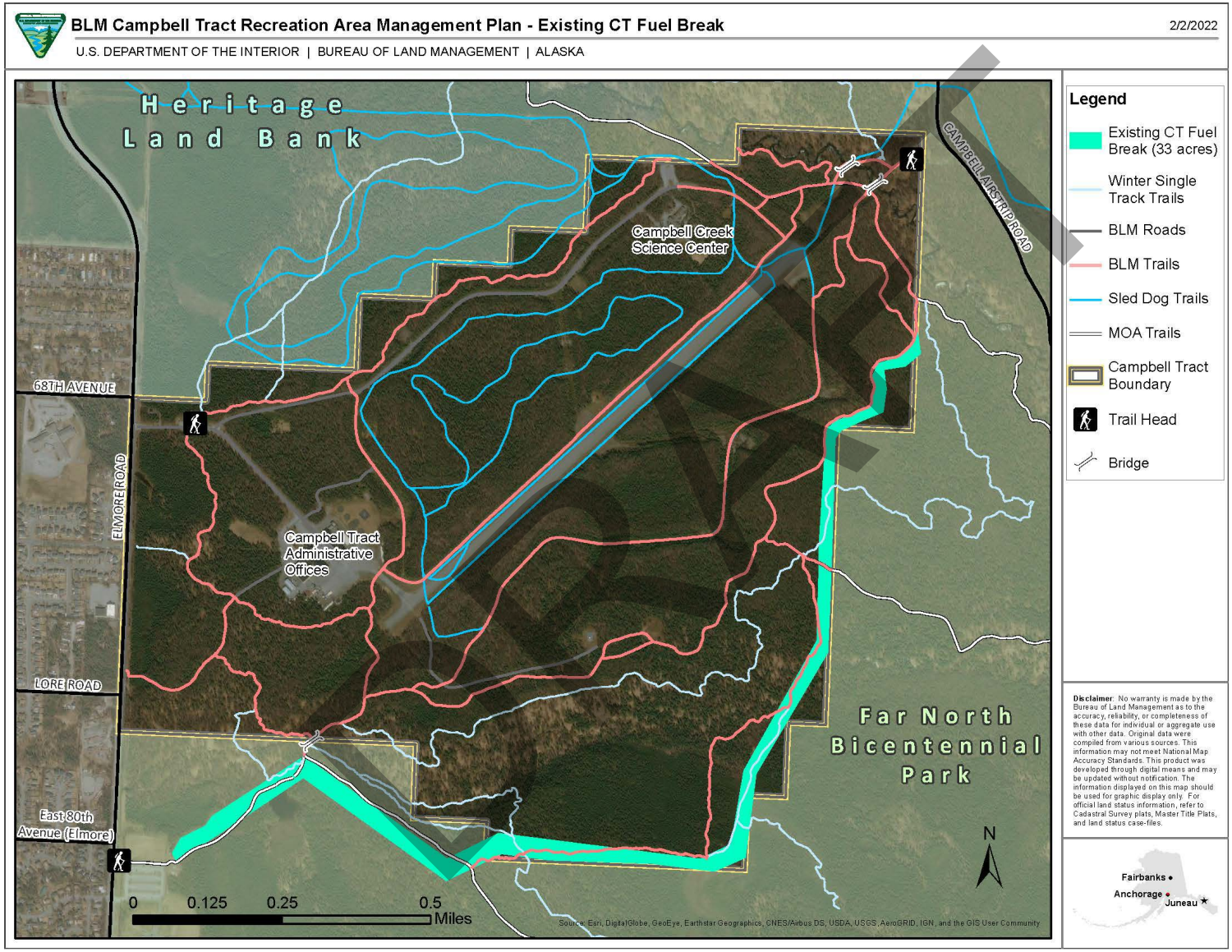
11.4 Map #5 Existing Unmanaged Winter Only Single-Track Trails



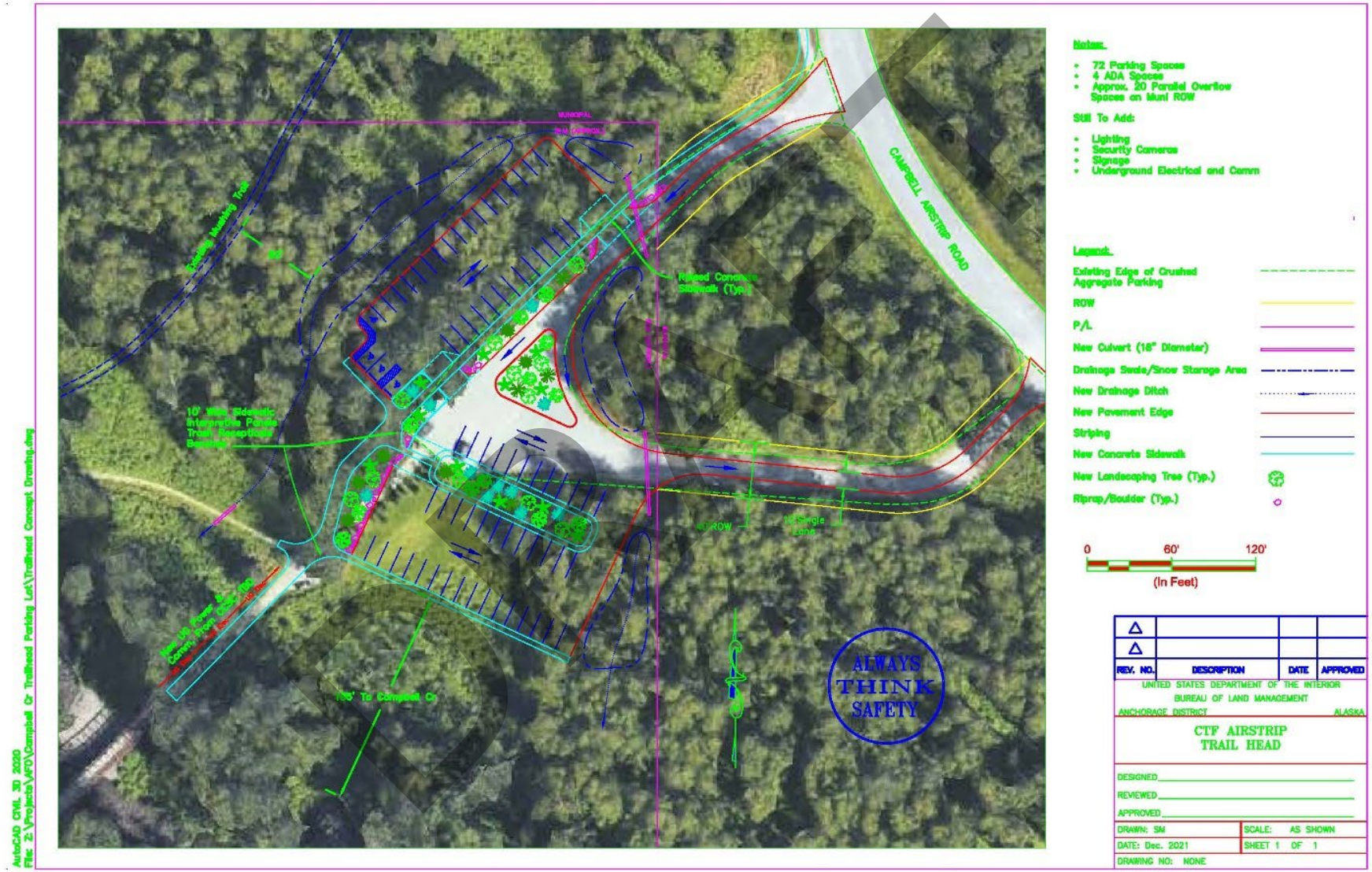
11.5 Map #6 Hazard Tree Removal (100’ buffer)



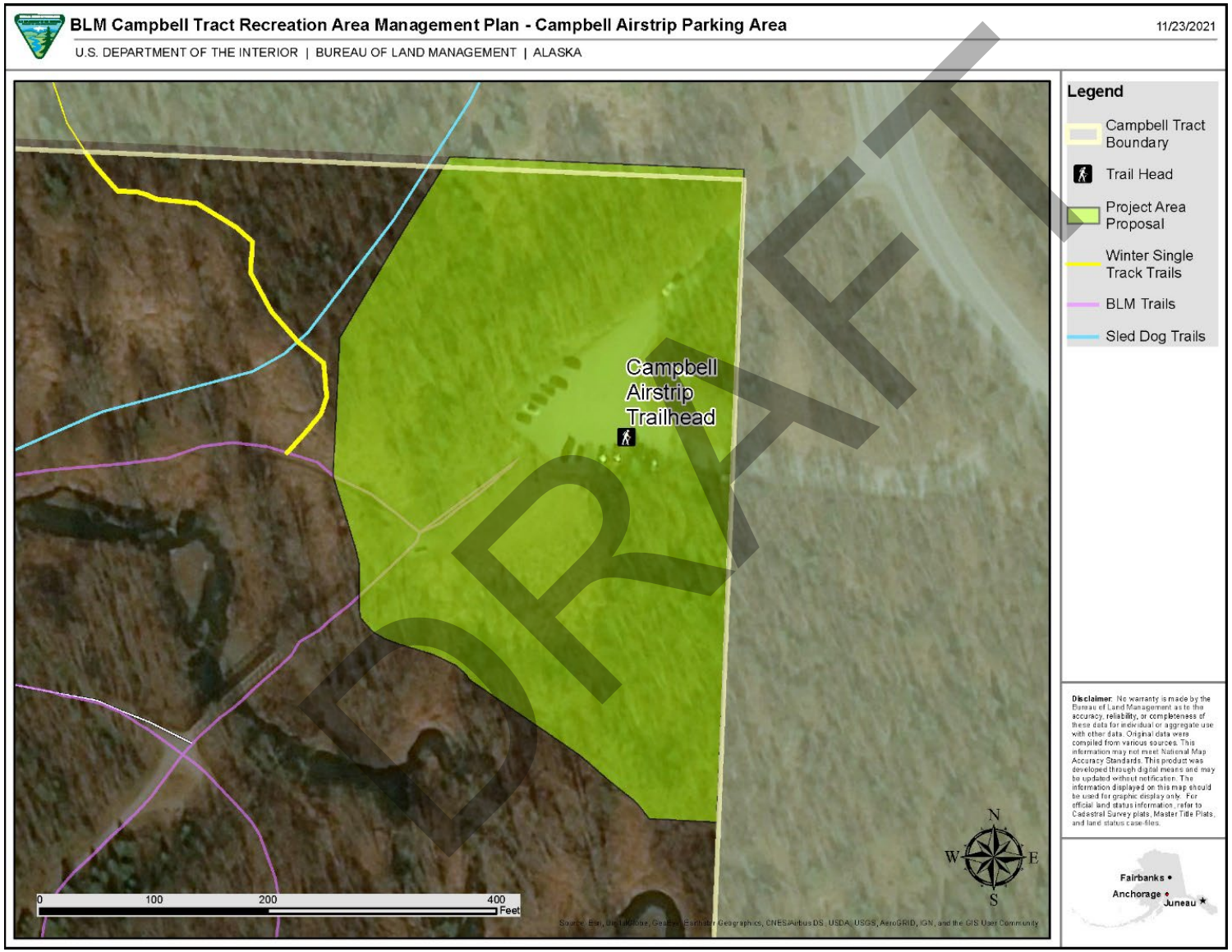
Map #7 Existing CT Fuel Break



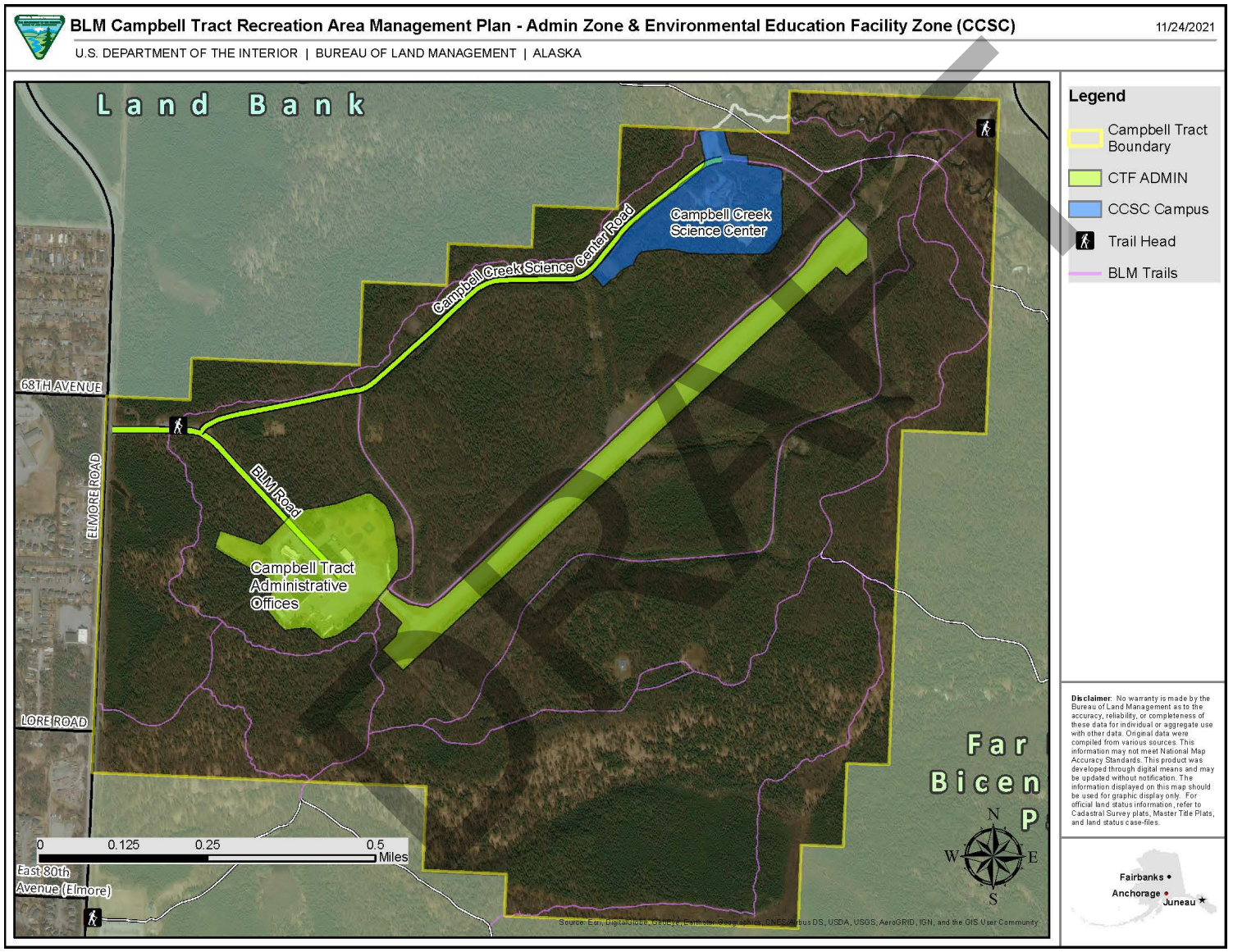
11.6 Map #8 BLM Campbell Airstrip Trailhead (CAT) Parking Area DRAFT layout design



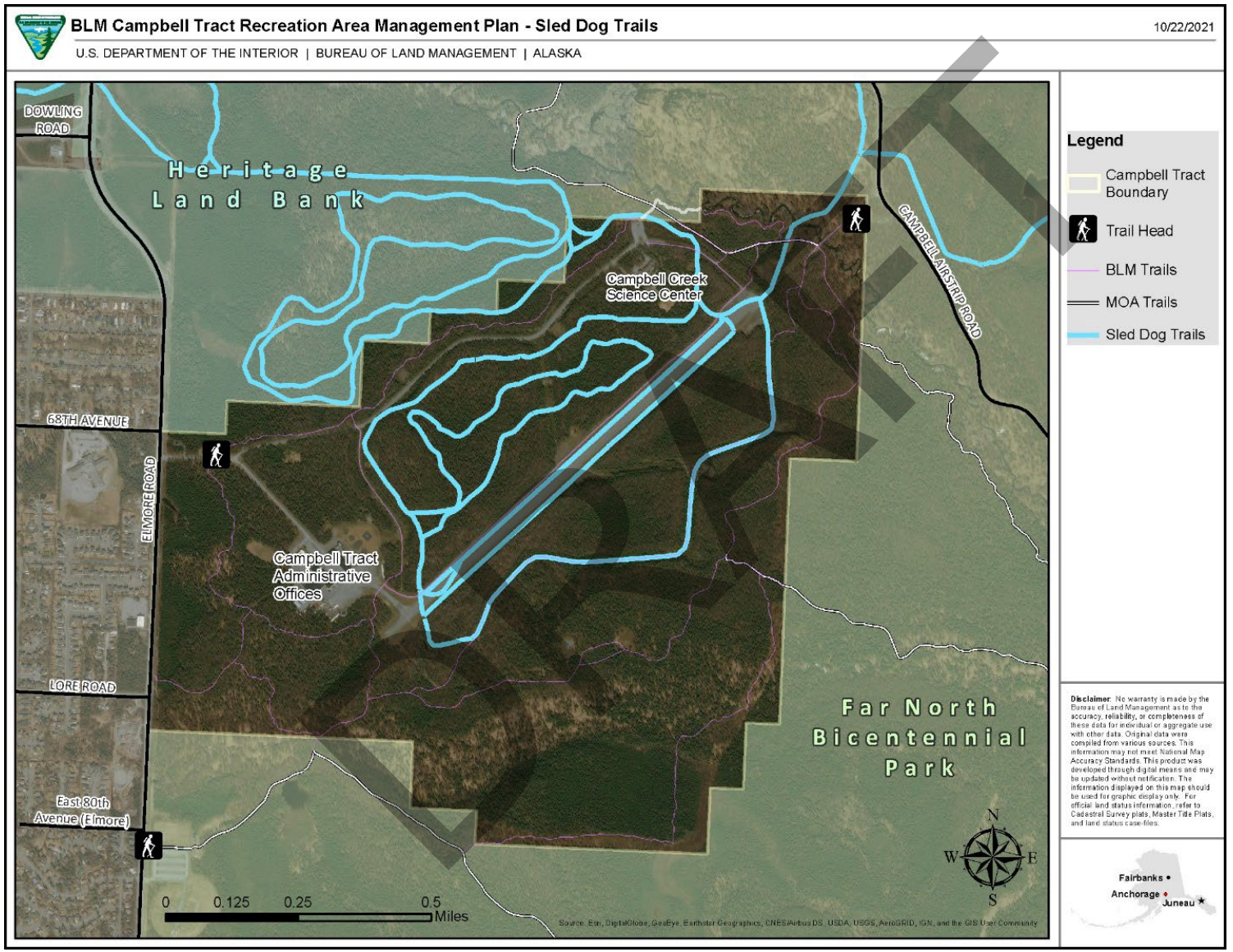
11.7 Map #9 BLM Campbell Airstrip Parking Proposed Project Area



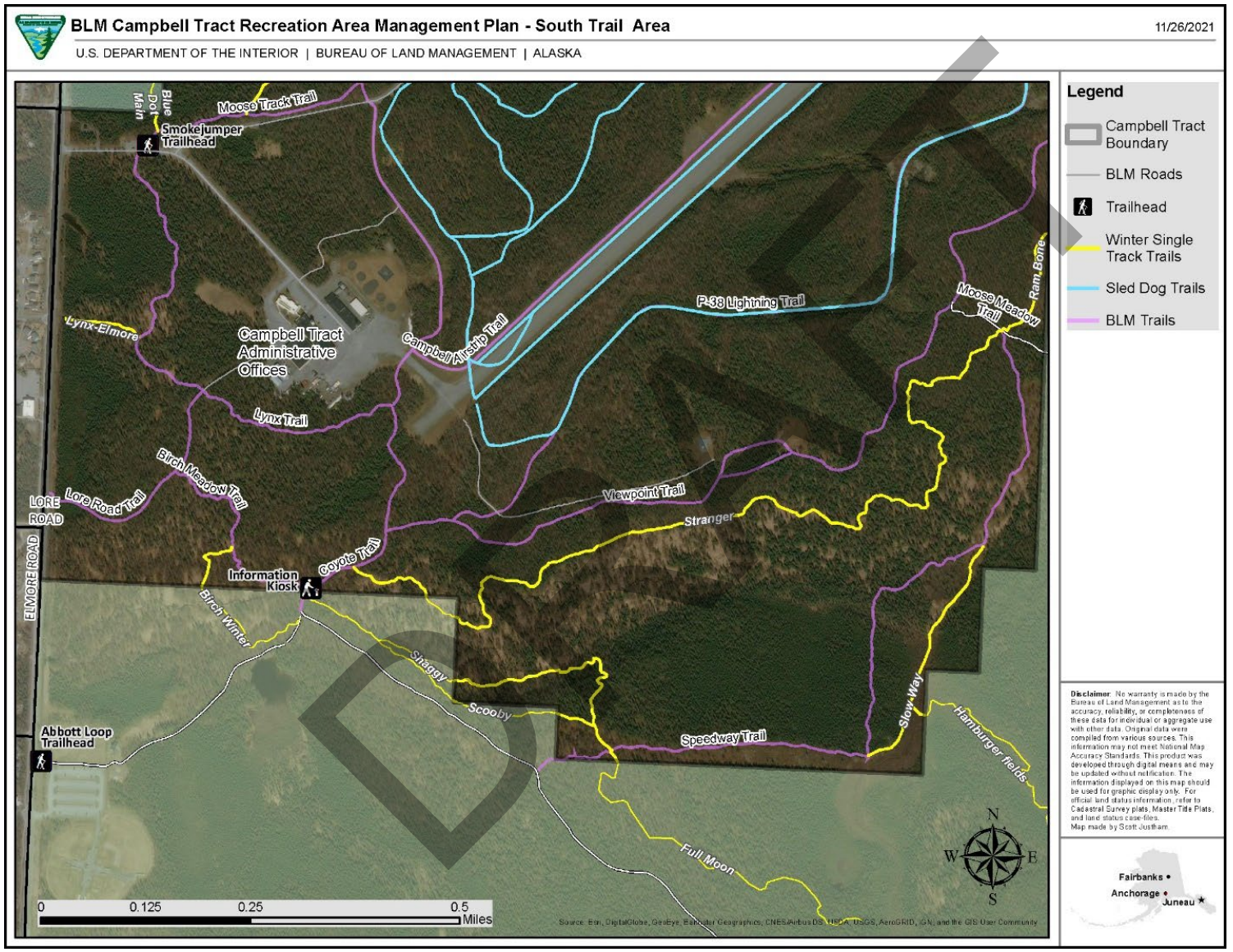
11.8Map #10 Administrative Zone & Environmental Education Facility Zone (CCSC)



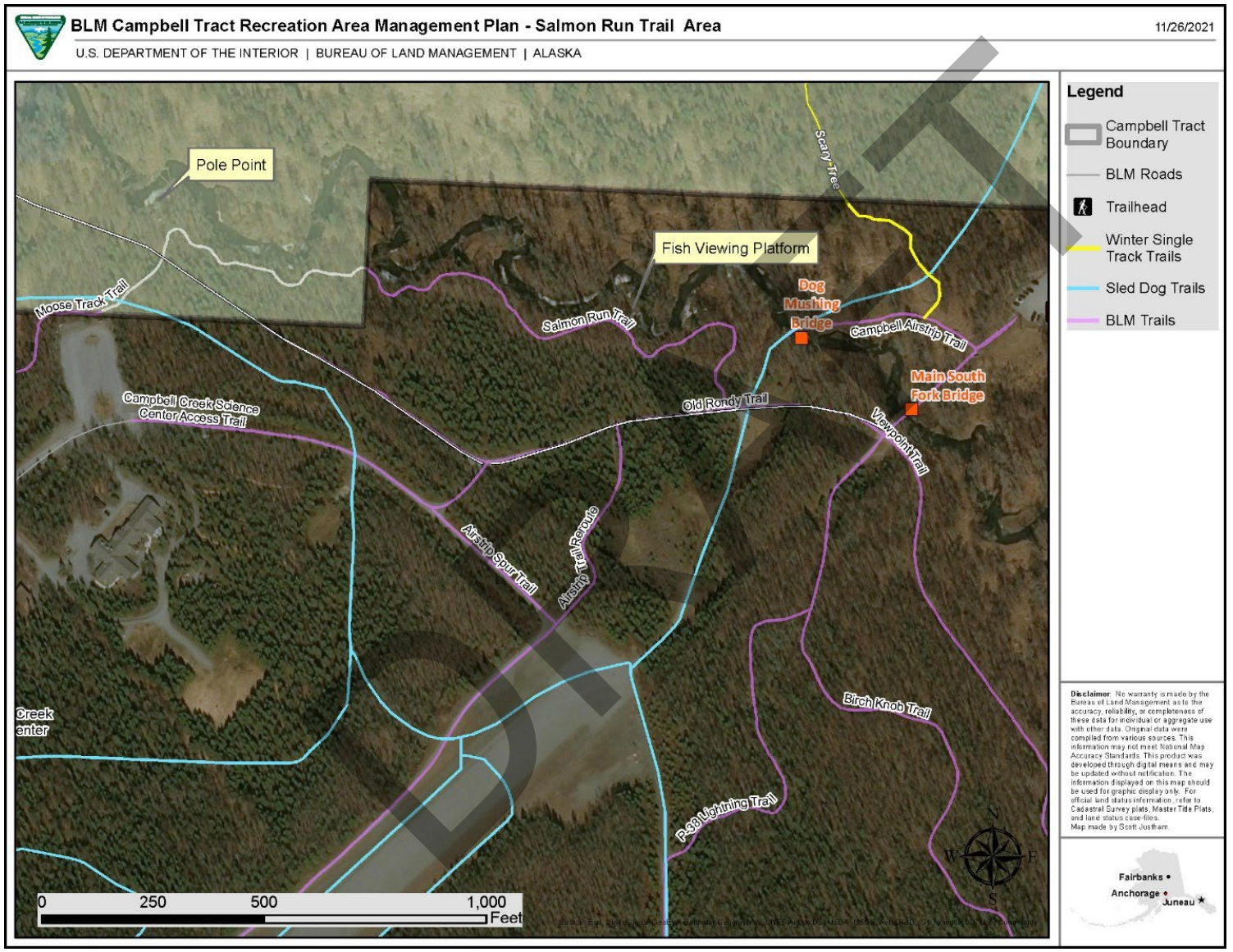
11.9 Map #11 Designated Winter Sled Dog Trails



11.10 Map #12 CT South Trail Area



11.11 Map #13 Salmon Run Trail Area



12 Appendix F: Figures

13 Appendix G: Tables

14 Appendix H: Project Design Features (PDFs)and Best Management Practices (BMPs)

Appendix A of the 2008 Ring of Fire RMP, as well as the CT 1988 Management Plan includes several required operational procedures (ROPs) and best management practices (BMPs) designed to maximize beneficial results and minimize negative impacts of management actions. Each of the following ROPs and BMPs are a part of the coordinated development of land use plans in the BLM Anchorage Field Office and may be updated as new information becomes available to ensure that objectives are met and to conform with changes in BLM regulations, policy, direction, or new scientific information.

ROPs are requirements, procedures, management practices, or design features that the Bureau of Land Management (BLM) adopts as operational requirements. They would apply to the Preferred Alternative and all the actions associated with the alternative. These ROPs and stipulations were developed through the Ring of Fire planning process in 2008. To be necessary and effective, ROPs and stipulations are based on sound science, current land patterns and uses, resource protection requirements, and are consistent with the requirements of the land use plan, regulations, and laws. ROPs have been developed to ensure that objectives identified within the CT RAMP are met in carrying out implementation actions. All actions must follow current use restrictions and closure orders outlined in Section 1.6. To reduce impacts to resources, the BLM would implement the following project design features and stipulations:

14.1 Recreation & Visitor Services

Management practices will consider protection and conservation of known recreational resources through sustainable practices that will have minimal impact to significant recreational resources where possible and mitigate unavoidable damage. Managers will consider following existing guidance from federal trail design and construction manuals, as well as partners and local trail stewards. Managers will be consistent with BLM policy for managing SRP activities on CT.

- Manage recreation actions and other permitted activities to meet Visual Resource Management (VRM) class IV. The modification or disturbance of landforms and vegetative cover will be minimized to achieve VRM class IV. The lands in the project area were identified in the 2008 BLM Ring of Fire Resource Management Plan as VRM Class IV, which provides for management activities that require major modifications to the existing character of the landscape. Short term impacts to visual resources are related to construction activities. Long term impacts are related to the potential for increased trail and parking lot use by recreational users. These impacts are consistent with a VRM Class IV rating.

14.1.1Requirements

14.1.1.1 Year-Round Single-Track Trail

- The trail corridor will be roughly 1 mile long, 2-3 feet wide, and approximately 12 feet of clearing overhead to accommodate all authorized uses.

- Trail will curve and contour with the landscape to prevent erosion and reduce speeds while maintaining clear sightlines.
- Trail will be designed for two-way travel.
- Trail surface will be natural soil or compacted porous gravel mix when needed.
- Trail will incorporate scenic qualities naturally present.
- Trail development will be as minimally invasive as practicable.
- Trail construction ground disturbance will likely occur when the ground is not frozen.
- Trail will avoid wildlife dens and nesting sites if discovered.
- Trees will be cut in a manner and timeframe so as not to invite disease or devastating insects.
- Trees and brush will be cut as close to the ground as possible.
- Slash will be piled, chipped, dispersed, or removed as needed.
- Where trees are cut, the butt end from the cut will be oriented to blend into the surrounding landscape.
- The trail will be incorporated in the broader trail map and appropriate signage will be installed for visitor orientation.
- Trail will avoid archaeological sites.

14.1.1.2 Trail System Maintenance

Public Notice

Prior public notice will be provided in advance for routine maintenance that has a high likelihood of impacting the recreating public. Prior public notice will be given via signs at trailheads, social media posts, emails to permit holders and the CT/FNBP User Group, closure notices and trail signs. Trail reroutes will be signed and in place for the duration of trail work and trail closures to minimize conflict with trail workers and the recreating public. This could include, but is not limited to, trail closures, trail detours, trail reroutes, orange safety cones, orange safety fencing, signs, flagging, notifications, press releases, staffed closures, etc.

Maintenance and Construction

Many of the proposed actions include the use heavy equipment on or near roads and trails. Various types of large equipment could be used during any construction or maintenance activities. Larger equipment such as dump trucks, skid steers, bob cats and other large earth moving equipment could be used for these larger projects. (Fuels management projects, trail projects, parking area projects, etc.) Reference the trail description section of Appendix F in the CT RAMP for common equipment used to maintain individual trails (BLM 2022).

Other smaller trail projects and routine maintenance would be conducted using hand tools recommended in the USDA USFS Trail Construction and Maintenance Notebook, including but

not limited to, pruning saws, combination tools, hoes, mattocks, McLeods, Pulaskis, shovels, brush hooks, and lopping shears (USDA 2007).

Routine maintenance could include but is not limited to; the installation, maintenance, or replacement of signs, hazard tree removal around administrative sites, parking area surface maintenance (snow removal, sweeping, resurfacing, etc.), trail resurfacing, drainage maintenance, brush clearing and removal of debris. The continued use of government authorized aviation resources would continue regular use of the airstrip, airstrip ramp and/or parking area, heliport pads, etc.

- Maintain the trail corridor height and width and sightlines by cutting vegetation which pose a safety hazard to the trail users to accommodate all authorized uses.
- Install drainage features such as French drains, culverts, water bars, and drain dips (as necessary and practicable) to resolve trail drainage issues; resurfacing trails to improve trail tread durability; and trail grooming during winter months utilizing snowmachine groomers or other similar equipment.
- Trail maintenance and associated trail work (such as limbing or lopping tree limbs) will be completed by staff, partnerships groups, volunteers, or contractors utilizing hand tools, chainsaws, or other gas-powered handheld equipment. Larger equipment such as dump trucks, skid steers, bob cats and other large earth moving equipment may be used for larger project work (Fuels management projects, trail projects, etc.) that is prohibitive to be completed by hand tools.
- The trail surface material used for trail projects will remain a compacted porous gravel.
- No pavement or asphalt is planned for the greater trail system. Some hard surface materials (pavement and/or asphalt) could be used in future projects related to parking accessibility and accommodating for ADA or handicap access from Campbell Airstrip Trail head to the larger Campbell Creek bridge.
- BLM will conduct routine maintenance around trailheads and along roads and trails within existing disturbance areas, as needed, such as mowing of grasses or other herbaceous vegetation along pavement edges; cutting dead or dying trees which pose a strike hazard to the area; regular pavement maintenance such as graveling, sweeping, striping, or resurfacing; and snow removal. General traffic, road, and informational type signs are also included under these general maintenance activities.

14.1.1.3 E-Bike Types and Authorized Use Areas

- Sign trails and kiosks with E-bike authorization and/or restrictions as needed.

14.1.1.4 Winter Only Single-Track Trails

- Limit the number of the existing unmanaged winter only single-track trails to include the locally referred to trails named “Stranger Trail”, “Slow Way Trail”, “Shaggy Trail”, Scooby Trail”, “Rambone Trail”, “Scary Tree Trail” and MOA’s Blue Dot Trail (only trail on map that is summer and winter use) (Appendix E: Map #1 & #5).
- Pack out trails with snowshoes during early snow fall.

- Travel at safe speeds and come to a complete stop for outdoor recreators on the trail being groomed.
- Groom trails outside of known heavy use time periods.
- Avoid known areas of wildlife refuge, dens, and nesting locations.
- Monitor trails regularly for resource damage. Take appropriate administrative action if resource damage is found.
- Discourage resource damage and social trail development through appropriate engineering, education, and law enforcement action.
- For trail maintenance, remove and cut limbs and trees only if dead and down as needed.
- No ground disturbance will be authorized for the winter only trails.
- BLM will not implement this action on shared trails until the MOA has time to go through their public processes and come to a determination on how they will manage the winter only single-track trails throughout MOA managed park lands.

14.1.1.5 Fuels Management Treatments

- The fuels project manager would be required to consult with the AFO Resources natural resource team, to include Recreation, Hydrology, Ecology, Wildlife, and Fisheries when developing the project treatment plan to address tree marking and removal for retention of the RSC's as well as to avoid or minimize negative surface impacts, such as degrading habitat, disturbing soils, and vegetation. The only trees that will be marked will be the ones slated for removal and will be marked in a manner what will not be highly visible to the recreating public. That could be a paint mark close to the ground on the bole of the tree or on the back side of the tree facing away from tails, roads, and parking areas.
- Internal BLM coordination is essential when developing the project plans to include project specific logistics prior to implementation, hiring seasonal staff, enlisting volunteers, and working with partner organizations to maintain the trails.
- A multiyear phased approach for implementation will be utilized to safely allow recreation to continue in portions of CT while treatments are occurring in others.
- Proper communication and consultation between the project lead and management staff prior to developing of contracts and scope of work specifications to ensure the proper equipment and methods are specified and understood for work on and around individual trail segments and other features.
- Equipment may not exceed the tread width for any segment of trail or road that it will travel on.
- Tracked heavy equipment may operate off trails and roads when the ground is frozen and ideally covered in snow.
- Skidding may be authorized on trails or roadways, in certain circumstances, if it can be shown that it will not cause damage to the trail or roadway, or to the adjacent trees and vegetation.

- Treatments will ensure the overstory canopy stays largely intact to maintain pre-existing understory plant composition, shading of surface fuels, and the structural integrity of the remaining trees while protecting trails, roads, parking areas, and facilities.

14.1.1.6 Campbell Airstrip Trailhead (CAT) Parking Area

- Develop further refined conceptual parking lot engineering plans.
- Communicate and collaborate with MOA and partners.
- Pave the existing Campbell Airstrip Trailhead (CAT) gravel parking area.
- Ensure adequate drainage from parking lot surface.
- Expand the parking lot footprint up to 2.2 acres to accommodate 100-200 paved parking spots.
- Increase safety with pavement striping and painted parking spaces.
- Install directional signs as needed.
- Install timed, downward facing security lighting
- Install security cameras and monitor regularly.
- Install bollards or rocks to prevent motor vehicles from accessing the trail system. Ensure to make the bollards removable for emergency vehicle access.
- Install gates for traffic flow and emergency closure.

14.1.1.7 Recreation Permit Authorizations

Follow RSC's to identify the optimum parameters for permitted activities and events to maximize user experience and minimize potential for conflicts and resource impacts including the following:

- SRP group size on CT.
- Amount and type of SRPs on CT.
- Number of permitted SRP activities in the same day.
- Period an SRP activity can occur depending on peak visitation hours.
- Number of parking spaces SRP activities can occupy.
- Number of participants for SRP activities to prevent overcrowding and congestion of the trail.
- Size of non-permitted gatherings on CT.
- Follow BLM Manual H-2930-2 SRP policy for issuing SRP permits.

Incorporate all Project Design Features and BMPs from appropriate natural resources fields that are applicable to each Recreation Permit Authorizations.

14.2 Forest Health & Fire/Fuels Management

14.2.1Requirements

Required Operating Procedures from BLM Alaska Fire Management Plan (2018)/Ring of Fire:

- Operators will prevent and control noxious weed infestations. Noxious weeds in Alaska are listed under Alaska Statute 11 Alaska Administrative Code 34.020.
- Avoid stream crossings. When a stream must be crossed, make the crossing as close as possible to a 90-degree angle to the stream channel.
- Prescribed burn ignition patterns will provide for stream buffers. Lighting at stream edge will be avoided.
- When possible, operations that require vegetation removal will avoid the migratory bird nesting period of April 15 to July 15. If no feasible alternatives exist, an assessment will be conducted to determine bird species present, significance of potential impacts, and possible mitigation measures.
- Vegetation treatments will be designed to achieve desired conditions clearly described in individual burn plans, timber sales and fuels reduction projects. Desired conditions will be based on the ecological capability of a given site and will be expressed as cover types or seral stages within cover types, based on management objectives.
- Burn plans for large burns will prescribe conditions that result in a mosaic of burned or unburned areas within the burn unit. Smaller burns may not require a mosaic, dependent on objectives.
- Vegetation treatments will be designed to prevent introduction of noxious weeds. Prescribed burn plans will contain a segment on known occurrence of noxious weeds within planned burning areas and strategies for post-burn monitoring or treatment.
- Rehabilitate (repair) fire lines and bulldozer lines by spreading original soil and vegetation on the disturbed ground. In extreme cases where seeding or plugging may be necessary, use native vegetation and seeds. A rehabilitation (repair) plan should be developed by suppression forces working with Anchorage Field Office wildlife biologists and botanists.
- Use of aerial fire retardant near lakes, wetlands, streams, rivers, sources of human water consumption, and areas adjacent to water sources will be avoided to protect fish habitat and water quality. If feasible, use of water rather than retardant is preferred in these areas.
- In snow-free months, if wetlands cannot be avoided, low ground pressure vehicles will be used wherever possible.

Additional Requirements/Restrictions/Stipulations:

- Slash - Slash is defined as debris on the ground resulting from natural events (ex. wind, insect infestation, snow breakage, etc.) or human activities (pruning, thinning, brush cutting, etc.). It includes logs, chunks, branches, broken brush, or understory brush

(NWCG 2022). Where hazard tree densities are low and horizontal fuel loading is low, tree boles and limbs may be lopped and scattered if doing so does not create an additional fuel hazard. If scattering debris, limbs will be removed from tree boles. If fuels cannot be effectively dispersed, then a combination of scatter and disposal could be used to mitigate dense fuel accumulations. Where hazard tree densities are high, tree boles and limbs generated from hazard tree treatments should be removed in their entirety.

- Coarse Woody Debris - Riparian Areas - Coarse woody debris (CWD), and shoreline vegetation is an important component of freshwater, estuarine, and marine systems. It provides shade, streambank, and shoreline stability, and allochthonous inputs. Riparian vegetation also influences groundwater conveyance and storage, and the condition and complexity of aquatic habitats (Knutson and Naef 1997; Murphy and Meehan 1991). Course woody debris should be retained in place, if practicable, in riparian areas within 100 feet of either side of stream bank to provide for aquatic habitat and natural stream dynamics.

  Coarse woody debris (> 3" diameter) is beneficial to the health of soil and forest ecosystems. Unless the pre-existing density of CWD is already high in riparian areas within the project are, the equivalent of one log (12 in. diameter, 20 ft. long) can be left within the 100-foot buffer. However, the limbs must be disposed of or scattered to reduce fuel loading.

- Disposal of Trees and Slash - The method for disposal of felled trees, slash, and other woody surface fuels would take into consideration: concentration of material, the proximity to road or trail access, and accessibility by different equipment types. Whole trees, sections of trees, and/or limbs may be hauled, forwarded, and, in some cases, skidded from the treatment area to a central location where they can be removed off site, chipped or processed in other ways and disposed of. Material may also be chipped on-site into a chip truck or trailer and hauled offsite. The equipment used for these activities may include, but is not limited to, mini excavators, skid steers, ATVs, UTVs, snow machines, chippers, pickup trucks, chip trucks, and trailers. Where feasible, project activities would occur over frozen ground in the winter to reduce ground disturbance. Equipment must not exceed the tread width for any segment of trail or road that it will travel on.

- Project treatments: Start small in an area that isn't highly visible to the visiting public. If contracts are to be used, project oversight by the BLM would be required to ensure the RSCs remain intact while ensuring the selected hazard trees are removed.

- Equipment off trails: Where authorized, only tracked equipment may operate off trails and roads and may do so only when ground is frozen to not cause soil damage, and ideally covered in snow.

- Skidding: Unless otherwise noted, skidding may be used to move material short distances from the treatment area to an access trail or road where it can then be hauled, forwarded, and/or disposed of. Skidding may be authorized on trails or roadways in certain circumstances, if it can be demonstrated that it will not cause damage to the trail or roadway, or to the adjacent trees and vegetation.

- Recreational Disturbance: CT is used heavily throughout the year by recreationalists. A phased approach for implementation will be utilized to allow recreation to continue in portions of CT while treatments are occurring in others. Recreation staff will be consulted in the planning of this phased approach.
- Education and Interpretation: The risk of human caused wildfires can be addressed through wildfire prevention and mitigation awareness education and interpretation information that could be placed in kiosks at the entrances to CT.
- Beetle Activity/Treatment Timing: Thinning and removal of live trees is recommended to occur between September and mid-March to avoid attracting bark beetles. If these activities must occur at other times of the year, treatment at a small scale with immediate removal of the debris will be necessary to minimize attracting bark beetles. Removing and processing of already dead trees is not believed to affect beetle activity and can occur at any time that meets other project requirements, specifications and/or restrictions.
- Stream Habitat: Any Fuels Management Treatments that are planned within 150 feet of a stream will be written in consultation with AFO aquatic staff.

14.3 Wildlife

14.3.1 Requirements

- From May 1 through August 31, avoid human intrusion within one-quarter mile of trumpeter swan nests and rearing ponds. If no feasible alternative exists, no activity will commence prior to May 15 and qualified personnel will conduct a preliminary site survey within the two-week period prior to an activity's projected start date to establish trumpeter swan presence. If present, short-term activities will be delayed until after nesting trumpeter swans and cygnets have left the habitat. Approval of long term or permanent activities is dependent upon NEPA analysis, the extent and duration of impacts, particularly the propensity to displace the animals, and the ability to devise appropriate mitigation measures (ROP FW-3e, Bay RMP, 2008).
- Consistent with the Migratory Bird Treaty Act, operations that require vegetation removal will avoid the migratory bird nesting period of April 15 to July 15; these avoidance timing dates will be refined per specific region and habitat type (of individual projects) based on U.S. Fish and Wildlife Service's recommended guidelines. (FWS 2005) If no feasible alternatives exist, an assessment will be conducted to determine bird species present, significance of potential impacts, and possible mitigation measures. (ROP-F&W-a-13) Ref ROF RMP (FWH 14, Ring of Fire RMP, 2008)
- The planning area may now or hereafter contain plants or animals (or their habitats) identified as threatened, endangered, or Sensitive Status Species. The BLM may recommend modifications to proposals to further its conservation and management objective to avoid any BLM-approved activity that will contribute to a need to list such a species or their habitat. The BLM may require modifications to or disapprove proposed activities that are likely to result in jeopardy to the continued existence of a proposed or listed threatened or endangered species or result in the destruction or adverse

modification of a designated or proposed critical habitat. The BLM will not approve any ground-disturbing activities that may affect any such species or critical habitat until the BLM completes its obligations under applicable requirements of the ESA, including completion of any required procedures for conference or consultation. (FWH 20, Ring of Fire RMP, 2008)

- Within one-fourth mile of bald eagle nests, the following uses will not be permitted from April 1 to August 31: a) surface disturbing activities; or b) FLPMA leases or permits. Aircraft associated with permitted activities will maintain an altitude of 1,000 feet within one-half mile of documented eagle nests. Exemptions to this ROP may be granted for mining operations where no feasible alternative exists and where mitigation measures can be identified to minimize impacts. Appropriate buffers around other raptor nests will be determined based on site-specific analysis. (FWH 15, Ring of Fire RMP, 2008)
- To minimize the direct loss of priority raptor foraging habitat, all reasonable and practicable efforts will be made to locate permanent facilities as far from priority raptor nests as feasible and to minimize habitat loss to the extent feasible. Of particular concern for avoidance are ponds, lakes, streams, wetlands, and riparian habitats. (Wildlife-18, BSWI RMP, 2021)
- Comply with constraints for other nesting raptors as developed through project specific NEPA analysis. (ROP FW-3g, Kobuk Seward RMP, 2007)
- Establishment of permanent or semi-permanent ingress and egress into or through Federal Public lands is subject to constraints developed through project specific NEPA analysis and/or application of the provisions of 43 CFR §§ 3802.3-1, 3802.3-2(g), 3802.4-2. Permanent or semi-permanent access routes, regardless of purpose, shall be routed and concentrated to minimize habitat fragmentation. (ROP FW-4b, Kobuk Seward RMP, 2007)
- Continued pollinator monitoring efforts in areas of disturbance and adjacent habitat conducted by the BLM and other researchers. (BLM, IM 2016-013, 2016)
- Seed mixes used for reclaiming temporarily disturbed areas should include at least one pollinator friendly forb species. (BLM, IM 2016-013, 2016)
- Continuation of seasonal and emergency closures on trails that traverse high bear concentration areas could be implemented in conjunction with bear monitoring efforts.
- Continued proactive signing plan to warn users of bear and moose activity in the area.

14.4 Historical, Cultural, and Paleontological Resources

Management practices will consider protection and conservation of known cultural resources, including historical and prehistoric sites. Avoid damage to significant paleontological resources where possible and mitigate unavoidable damage.

14.4.1 Requirements

- For other non-oil and gas permitted activities, cultural resource protection, and conservation will be consistent with; 1) Sections 106, 110, and 101d of the National Historic Preservation Act (NHPA), 2) procedures under BLM's 1997 Programmatic Agreement for Section 106 compliance, and 3) BLM's 1998 Implementing Protocol in Alaska between BLM and the Alaska State Historic Preservation Officer.
- If necessary, mitigation measures will be implemented according to a mitigation plan approved by the AO. Such plans are usually prepared by the land use applicant's contract archaeologist according to BLM specifications. Mitigation plans will be reviewed as part of Section 106 consultation for National Register of Historic Places eligible or listed properties. The extent and nature of recommended mitigation will be commensurate with the significance of the cultural resource involved and the anticipated extent of the damage. Reasonable costs for mitigation will be borne by the land use applicant. Mitigation will be cost-effective and realistic.
- For all actions, evaluate the impacts of proposed actions to known resources and avoid damage to already-identified significant paleontological resources by avoidance.
- If avoidance is not possible, perform scientific examination of the to-be-impacted significant resources followed by appropriate mitigation, which may include the professional collection and analysis of significant specimens by scientists.

14.5 Vegetation

Treatments to alter the vegetative composition of a site, such as hazard tree removal, seeding, or planting must minimize vegetation disturbance from permitted activities and will be based on the potential of the site. Stabilizing disturbed soil as soon as possible minimizes soil erosion. Where permitted operations result in surface disturbance, land is returned as closely as possible to its pre- disturbed condition. Treatments will:

- retain or promote infiltration, permeability, and soil moisture storage.
- contribute to nutrient cycling and energy flow.
- protect water quality.
- help prevent the introduction and spread of noxious weeds.
- contribute to the diversity of plant communities and plant community composition and structure.
- maintain proper functioning condition; and
- support the conservation of T&E, special status species, and species of local importance.

Standard Invasive Species Procedures for Internal BLM Operations

The standard procedures outlined below provide specific guidance to meet objectives outlined in

the Department of Interior Environmental Quality Program Series 31: Part 524 - Invasive Species Management Manual. These procedures are used to prevent the introduction and spread of invasive species. These procedures are required of BLM staff for work-related operations on and off BLM-managed lands. They are built around the concept of preventing the spread of invasive species, detecting incipient populations early, and promptly responding when invasions are identified. Specific implementation plans about how to treat and control existing infestations on BLM-managed land are not addressed in these procedures.

1. **Training for Staff:** Provide a training program to permanent and seasonal field staff on the threat of invasive species, identification of priority species, best management practices, integrated pest management strategies, and other relevant topics prior to the beginning of the operation.

2. **Pre-Project Inventory:** Conduct inventories for invasive species for all ground-disturbing actions prior to the start of operations. Depending on project details, this inventory may be an on-the-ground survey or database review of past surveys. If work operations are non-ground disturbing, this is not necessary. However, if staff observe invasive species, they should record the location and report to the appropriate resource specialist.

3. **Clean Equipment and Gear:** Clean and decontaminate clothing and equipment, appropriate to site conditions. Remove mud, dirt, snow, and plant parts from all vehicles and other equipment before transporting. After working in weed-infested areas, all machinery, equipment, and vehicles should be cleaned prior to moving to weed-free areas. This includes all water handling and fire suppression equipment. Equipment and materials (including hand tools and motorized equipment) should be cleaned again if staged in an area with invasive species present. Pressure washing, steam cleaning, or other methods should include a catchment and filtration system for used water to capture seeds and contaminates. Dispose of captured seeds and contaminants properly.

4. **Cleaning Considerations Specific to Aquatic Environments:** Before transporting watercraft and aquatic gear (i.e., hip boots, waders, and bait containers) to a new area, 1) remove any aquatic plants, animals, and mud attached to watercraft and equipment, 2) drain water from boat, motor, bilge, live wells, and bait containers, and 3) spray all watercraft and equipment with high pressure and/or hot water (above 104 degrees) or dry for at least 5 days. Dispose of unwanted bait and other aquatic animals and plants in the trash.

5. **Cleaning Considerations Specific to Floatplane and Fire Aircraft Use:** Before entering aircraft, inspect and/or remove aquatic plants from floats, wires or cables, and water rudders. Check the transom, bottom, chine, wheel wells and float step area. Pump water from floats. Before takeoff, do not taxi through heavy plant growth and raise and lower water rudders to clear off plants, minimize cable stretch and improve steering effectiveness. After takeoff, raise and lower water rudder several times to free aquatic plant fragments while over the water you are leaving or over land. Water delivery aircraft for wildland fire support cannot dip or scoop from waters infested by elodea or other aquatic invasive species unless necessary to protect human health and safety.

6. **Use Weed-Free Materials:** Weed-free gravel, fill, straw, hay, seeds, and erosion control material shall be used on all projects. It is advisable to obtain weed-free certification of gravel and straw sources that have not previously been certified. Gravel pits and fill sources should be inspected regularly to maintain weed-free status and to immediately remove any non-native invasive species infestations.

7. **Avoid Infested Areas:** Do not travel, park, or stage equipment or materials on infested areas. If priority species cannot be avoided, develop a project-specific plan to minimize potential spread. Traveling off existing roads and trails with vehicles should be minimized. Clean all materials and equipment before beginning work at a new site.

8. **Mark Sign Infested Areas**: If an infested site is accessible from a commonly used public road or trail, consider temporary fencing, barriers, and signage to minimize the potential for spread. Consider restricting access to a site if public travel is likely to result in spread.

9. **Work Toward Infested Areas:** Plan to start work from an un-infested site and work toward the contaminated sites wherever possible.

10. **Timing:** If working within infested areas in unavoidable, time the activity to avoid seasonal periods when plant seeds are ripe. Ideally, work would occur in these areas before invasive species have flowered.

11. **Early Detection Rapid Response:** Recognizing invasive species early and removing them promptly is the least-cost method of control. Schedule regular (at least annual) inspections of any ground-disturbing project areas to check for invasions. If invasive species are found, work with the appropriate resource specialist to develop a treatment plan.

12. **Minimize Disturbance and Restore Vegetation:** Minimize the footprint of ground disturbing activities to minimize the potential area of invasive species infestation. Use native plants in site-specific restoration and/or revegetation plans to provide native plant cover to compete with potential invasive species.

13. **Coordinate:** Work with other groups in the area to provide some economy of scale and reduce effort of all concerned.

For more information:

Alaska Exotic Plants Information Clearinghouse (AKEPIC): https://accs.uaa.alaska.edu/invasive-species/non-native-plants/

Cal-IPC. 2012. Preventing the Spread of Invasive Plants: Best Management Practices for Land Managers (3rd ed.). Cal-IPC Publication 2012-03. California Invasive Plant Council, Berkeley, CA. Available: www.cal-ipc.org

Fleming, J. 2005. Vehicle Cleaning Technology for Controlling the Spread of Noxious Weeds

and Invasive Species. USDA Forest Service. Available: https://www.fs.fed.us/eng/pubs.

Invasive Species Stipulation Template for Special Recreation Permits and other non-ground disturbing permits (Forestry, Grazing, Research, Filming etc.):

1. **Initial Inspection**: BLM will notify an applicant if a priority species infestation is known to be present in their requested operating area prior to the issuing of their permit. Authorized permit holders will be responsible for the eradication of any increase in priority species if that increase is demonstrated to have resulted from the authorized activity.

2. **Preventative Measures**: The permittee shall develop activity-specific preventative measures based upon standard best management practices for preventing the introduction and spread of invasive species for their described activity. The permittee shall ensure that all equipment, vehicles (e.g., trucks, trailers, watercraft, aircraft), gear, and clothing is cleaned of visible soil, seeds, and vegetative parts before deploying to their site of operations. The permittee shall not travel, park, or stage equipment, supplies, or materials in areas infested with priority species. The permittee shall clean all equipment thoroughly after operating in infested areas before moving to another site.

3. **Weed-Free Material**: The permittee shall only use feed (e.g., hay cubes, hay pellets), bedding (straw), mulch, erosion control materials, and seed that is certified as weed-free through the Alaska DNR Weed-Free certification programs. Other sources may be approved by the AO.

4. **If Operating in Waterbodies**: Before transporting watercraft and aquatic gear (i.e., hip boots, waders, and bait containers) to the authorized use area, permittee shall: 1) remove any aquatic plants, animals, and mud attached to watercraft and equipment, 2) drain water from boat, motor, bilge, live wells, and bait containers, and 3) spray all watercraft and equipment with high pressure and hot water (above 104 degrees for exterior and 120 for interior compartments) or dry for at least 5 days; necessary dry time with be determined by the AO. Dispose of unwanted bait and other aquatic animals and plants in the trash.

5. **If Operation Involves Floatplanes**: Before entering aircraft, inspect/remove aquatic plants from floats, wires or cables, and water rudders. Check the transom, bottom, chine, wheel wells and float step area. Pump water from floats. Before takeoff, do not taxi through heavy plant growth. Raise and lower water rudders to clear off plants, minimize cable stretch and improve steering effectiveness. After takeoff, raise/lower water rudder several times to free aquatic plant fragments while over the water you are leaving or over land. Taking a floatplane from a marine environment into a freshwater environment or from a freshwater to a marine environment without decontaminating does not meet decontamination requirements.

6. **Reporting:** If non-native invasive species are observed, please report them to the BLM contact.

The following resources are suggested for finding more information on Alaska species identification and developing project-specific actions:

Alaska Exotic Plants Information Clearinghouse (AKEPIC): https://accs.uaa.alaska.edu/invasive-species/non-native-plants/

Cal-IPC. 2012. Preventing the Spread of Invasive Plants: Best Management Practices for Transportation and Utility Corridors. Cal-IPC Publication 2012-1. California Invasive Plant Council, Berkeley, CA. Available at www.cal-ipc.org

Flagstad, L.A., H. Cortés-Burns, and C. Greenstein. 2019. Identification of non-native plants in Alaska. Alaska Natural Heritage Program, University of Alaska Anchorage. 219 pp. Available: https://accs.uaa.alaska.edu/invasive-species/publications/

Fleming, J. 2005. Vehicle Cleaning Technology for Controlling the Spread of Noxious Weeds and Invasive Species. USDA Forest Service. Available: https://www.fs.fed.us/eng/pubs.

Graziano, G., S Seefeldt, and L. Clayton. 2014. Best Management Practices: Controlling the Spread of Invasive Plants During Road Maintenance. PMC-00342. Available: http://cespubs.uaf.edu/publications/

US Bureau of Reclamation and US Army Corps of Engineers. 2012. Inspection and Cleaning Manual for Equipment and Vehicles to Prevent the Spread of Invasive Species. Tech Memo No. 86-68220-07-05. Available: https://www.usbr.gov/mussels/prevention/

14.5.1.1 Requirements

- Conduct ground operations during frozen conditions when possible (12 inches frost or 6 inches average snow cover).
- Location of winter trails will be designed to minimize breakage or compaction of vegetation.
- Design trails for minimal disruption of natural drainage patterns.
- Trails shall avoid areas with unstable or fragile soils.
- Place water bars across reclaimed trails having grades more than two percent. Spacing will be dependent on trail gradient and soil erodibility.
- Save all organic material for future use in an area separate from overburden.

- Recontour and revegetate trails and other disturbed areas as per the approved RAMP. Revegetation will occur through seeding of native seed or by providing for soil conditions that allow the site to revegetate naturally; whichever provides the most effective means of reestablishing ground cover and minimizing erosion. Scarify the final land surface to provide seed traps and erosion control.
- Seed and plant with native species. Where native species are not available in sufficient quantities or where they are incapable of maintaining or achieving the objective, or where non-native species are essential to the functional integrity of the site, non-native vegetation may be used with specific approval from the AO.
- Respread vegetation removed during trail construction to provide protection, nutrient recycling, and seed source.
- Invasive Weed Surveys and Monitoring: Surveys and monitoring will be conducted post project annually for the presence of any invasive or non-native vegetation. Weed treatments will be applied as needed and in compliance with BLM invasive weed guidance and policies. These monitoring and treatments will be described further in the monitoring portion of the CT RAMP (BLM 2022, Draft CT RAMP, Section 5.0).

14.6 Hydrology

Minimize disturbance to riparian areas and facilitate rehabilitation of riparian areas. Involve the following land management practices to avoid or minimize adverse impacts upon the hydrological, habitat, subsistence, and recreational values of public wetlands.

14.6.1Requirements

- Aquatics staff consultation is required before removing any hazard trees from stream corridors.
- All operations shall be conducted with due regard for good resource management and in such a manner as not to block any stream, or drainage system, or cause the pollution or siltation of any stream or lake.
- Activities in wetlands will comply with federal and state permit requirements for alteration of wetlands.
- Utilize winter access whenever possible and avoid trail construction in wetlands.
- In snow-free months, if wetlands cannot be avoided, low ground pressure vehicles will be used wherever possible.
- New trail construction within floodplains will be avoided. Where necessary, trails will cross riparian areas perpendicular to the main channel.
- Projects will be designed to protect water quality and comply with state and federal water quality standards.

- Structural and vegetative treatments in riparian and wetland areas will be compatible with the capability of the site, including the system's hydrologic regime, and will contribute to the maintenance or restoration of proper functioning condition.
- Refueling of equipment will not be conducted in riparian areas or within 500 ft of the active floodplain of any fish-bearing waterbody or within 100 ft from non-fish bearing waterbodies. The AO may authorize storage and operations at areas closer than the stated distance if properly designed to account for local hydrologic conditions.
- If operations occur in winter, crossing of waterway courses will be made using a low-angle approach. Snow and ice bridges will be removed, breached, or slotted before spring break-up. Ramps and bridges will be substantially free of soil and debris.
- All permitted operations will be conducted in such a manner as to not block any stream or drainage system, and to comply with state and federal water quality standards.
- Human use will be managed to meet and maintain water quality standards and avoid management problems and water quality impacts. Specific management practices will include the use of portable toilet systems.

14.7 Fisheries

Maintain and protect fish and wildlife habitat (FWH) on public lands, and provide the habitat needs of fish and wildlife resources necessary to maintain or restore such populations. Heavy concentrations of activities in sensitive wildlife and plant habitats will be avoided. Fish and wildlife resources and habitat will be managed to ensure compliance with the ESA and to ensure progress towards recovery of listed T&E species.

14.7.1 Requirements

- Utilize existing roads and trails whenever possible.
- No road crossings are permitted in crucial spawning habitat unless no feasible alternative exists, and it can be demonstrated that no adverse effects will occur.
- Avoid stream crossings. When a stream must be crossed, make the crossing as close as possible to a 90-degree angle to the stream. Make stream crossings at stable sections in the stream channel.
- Bridges and culverts will be large enough, or will be positioned, to 1) avoid altering the direction and velocity of stream flow, and 2) avoid interfering with migrating, rearing, or spawning activities of fish and wildlife. Bridges and culverts should span the entire non-vegetated stream channel.
- Recontour and revegetate disturbed stream banks or take other protective measures to prevent soil erosion into adjacent waters.
- Fuels management activities will provide buffers to prevent disturbance of fish habitat and possible sedimentation into streams. Buffer widths will be dependent on treatment method, season of treatment, equipment used, slope, vegetation, and soil type. Winter operations will be encouraged to minimize impacts to riparian areas.

- The planning area may now or hereafter contain plants or animals (or their habitats) identified as T&E or special status species. BLM may recommend modifications to proposals to further its conservation and management objective to avoid any BLM-approved activity that will contribute to a need to list such a species or their habitat. BLM may require modifications to or disapprove proposed activities that are likely to result in jeopardy to the continued existence of a proposed or listed threatened or endangered species or result in the destruction or adverse modification of a designated or proposed critical habitat area (CHA). BLM will not approve any ground-disturbing activities that may affect any such species or CHA until BLM completes its obligations under applicable requirements of the ESA, 16 United States Code (U.S.C.) 1531 et seq., including completion of any required procedures for conference or consultation.
- In areas where social trails develop that impact riparian areas placement of a restrictive barrier such as buck and rail fence or a natural barrier to restrict access to these trails maybe used as a mitigation measure.

14.8 Hazardous Materials and Waste Handling

Protect the health and safety of permittees, lessees, miners, oil field workers, and the general public by avoiding the disposal of solid waste and garbage near areas of human activity. Minimize impacts on the environment from non-hazardous waste generation. Minimize the impacts to fish, wildlife, and the environment from hazardous materials, oil spills, and other chemical spills.

14.8.1Requirement

- Areas of operation will be left clean of all debris.
- All feasible precautions will be taken to avoid attracting wildlife to food and garbage.
- All solid waste will be disposed of in an approved waste-disposal facility in accordance with United States Environmental Protection Agency (USEPA) and Alaska Department of Environmental Conservation (ADEC) regulations and procedures.
- Fuel storage will not occur closer than 100 ft from any river, lake, stream, or wetland unless approved by the AO.
- All fuel containers, including barrels and propane tanks, will be marked with the responsible party's name, product type, and year filled and purchased.
- All waste generated during operation, maintenance, and termination activities under this authorization shall be removed or otherwise disposed of as required by state and federal law. In this case the waste must be dumped in a DEC approved landfill site. Waste in this sub-paragraph means all discarded matter, including but not limited to, human waste, trash garbage, refuse, and oil drums, petroleum products, ashes, and discarded equipment.
- All fuel or lubricant spills will be cleaned up immediately, taking precedence over all other matters, except the health and safety of personnel. Spills will be cleaned up utilizing absorbent pads or other Alaska State DEC approved methods. Any such spill sites will be documented so that they can be located during the compliance check.

- Recovered spill fluids will be removed and incinerated in approved receptacles.
- As soon as possible, but not later than 24 hours, notice of any such discharge as defined in Alaska Statute Title 18, Chapter 75, Article 2, will be given to the AO and any other Federal and State Officials as are required by law.
- All State and Federal safety standards and regulations for fuel transportation and handling will be followed. Only fuel products and amounts specifically authorized shall be stored on site and shall be located at least 100 feet away from any source of water. All fuel containers, including barrels and propane tanks, shall be marked with the grantees name, product type, and year filled.
- No hazardous materials shall be transported or disposed within the area of authorized use.
- The site must be kept clean. All waste generated during the operation and termination activities of this lease shall be removed and disposed of as required by state and federal laws. As defined in this paragraph "waste" means all discarded matter, including but not limited to human waste, trash, garbage, litter, oil drums, petroleum, ashes, and discarded equipment.
- Petroleum products or by-products shall not be used for dust suppression.
- Fuel storage containers, including slow test holding tanks and hazardous substances, with a total combined capacity larger than 55 gallons shall not be placed within 100 feet of the ordinary high-water mark of any water body. Containers which exceed a total combined capacity of 110 gallons must be stored within an impermeable diked area or portable impermeable containment structure capable of containing 110 percent capacity of the largest independent container. All containers must clearly be marked with the content's and the authorization holder's name. Drip pans and materials, such as absorbent pads, must be on hand to contain and clean up spills from any transfer or handling of fuel.
- Areas of operation shall be left clean of all unauthorized foreign objects. This shall include, but is not limited to, wires, pins, flags, and reflectors.
- The site must be kept clean. All waste generated during the operation and termination activities shall be removed and disposed of as required by state and federal laws. As defined in this paragraph "waste" means all discarded matter, including but not limited to human waste, trash, garbage, litter, oil drums, batteries, petroleum, ashes, and discarded equipment.