

# White Spruce Tree Research

## Introduction

Patrick Sullivan through the University of Alaska at Fairbanks held a permit for three (3) years to conduct white spruce tree research near the Dietrich drainage off the Dalton Highway. This permit expired on September 30, 2015.

## Summary

Patrick Sullivan through the University of Alaska at Fairbanks proposes to continue his research on white spruce trees near the Dietrich drainage off the Dalton Highway for three (3) years.

## Decision

I have decided to authorize a site right-of-way grant to the University of Alaska at Fairbanks, Patrick Sullivan to continue his research on white spruce trees near the Dietrich drainage off the Dalton Highway for from December 2015 through December 2018 located at 68°01'5.01' -149°43'32.32' off the Dalton Highway. Access would be by vehicle on the Dalton Highway and then an Alyeska access road, then by foot to the site.

## Management Considerations

The Categorical Exclusion and supporting documentation have been prepared consistent with the requirements of various applicable statutes and regulations, including but not limited to:

- Alaska National Interest Lands Conservation Act of 1980 (ANILCA)
- Federal Land Policy and Management Act of 1976 (FLPMA)
- National Environmental Policy Act of 1969 (NEPA)
- National Historic Preservation Act of 1966 (NHPA)

One BLM land use plan applies to the overall project area, the Utility Corridor Resource Management Plan.

## Public Involvement

It was determined that due to the remoteness of the action, there would be no impact to the general public. Additionally, this document was published to the electronic Central Yukon Field Office NEPA Register on December 14, 2015. No comments have been received as of January 6, 2016.

## Appeal or Protest Opportunities:

This decision may be appealed to the Interior Board of Land Appeals, Office of Hearings and Appeals, in accordance with 43 CFR Part 4 and DOI Form 1842-1. The notice of appeal must be filed in the Bureau of Land Management Central Yukon Field Office, 1150 University Avenue, Fairbanks, Alaska 99709 within 30 days from receipt of this decision. If you decide to file an appeal, you must carefully follow the procedure described on the enclosed form 1842-1. If you don't file your appeal at the locations specified on the form within 30 days, the Board may dismiss your appeal as untimely without considering its merits. Be sure to send a copy of your notice of appeal to each party named in this decision and to all of the addresses on the enclosed form 1842-1. You may also ask the Board to stay or suspend the effect of this decision while your appeal is pending. If you desire a stay, you must enclose your request for a stay with your notice

of appeal. You have the burden of showing a stay is justified. The Board will grant a stay only if you provide sufficient justification based on the following standards:

1. The relative harm to the parties if the Board grants or denies the stay,
2. The likelihood of the success of your appeal on its merits,
3. The likelihood of immediate and irreparable harm if the Board does not grant the stay, and;
4. Whether the public interest favors granting a stay.

**Approval from Authorized Official:**

**Field Office Manager Decision**

Having considered a full range of alternatives, associated impacts, and public and agency input, I have decided to adopt and implement the attached approved plan in conformance with the Utility Corridor Resource Management Plan.

/s/ Timothy J. La Marr

Signature

Timothy J. La Marr

Field Manager

Central Yukon Field Office

January 12, 2016

Date

## — Appendix A — Essential Fish Habitat

NEPA Document No.: DOI-BLM-AK-F030–2016–0007-DNA

Prepared by: David G. Parker

Date: 12/22/2015

**Essential Fish Habitat (EFH) Finding:** The proposed action lies within the general range of Dolly Varden (*Salvelinus malma*); arctic char (*S. alpinus*); Lake Trout (*Salvelinus namaycush*); burbot (*Lota lota*); and whitefish (Coregonid spp.). Arctic grayling (*Thymallus arcticus*) and slimy sculpin (*Cottus cognatus*) are ubiquitous throughout the region (ADF&G 1978). Northern pike (*Esox lucius*), Alaska blackfish (*Dallia pectoralis*), longnose sucker (*Catostomus catostomus*) and ninespine stickleback (*Pungitius pungitius*) are also found in select streams and lakes in the area (BLM 2010 and Mecklenberg et al. 2002). Chinook (*Oncorhynchus tshawytscha*), coho (*O. kisutch*), and chum salmon (*O. keta*) are listed as present in waters adjacent to the proposed action. The National Marine Fisheries Service (NMFS) recognizes fresh waters cataloged (ADF&G 2014) as being used by salmon under AS 41.14.870 (Catalog of Waters Important for the Spawning, Rearing or Migration of Anadromous Fishes) as essential fish habitat (EFH).

The proposed action described in this Determination of NEPA Adequacy (DNA) is the renewal of a ROW to conduct research on white spruce trees. No adjacent water course will be adversely affected. Therefore, there is no anticipated effect on EFH.

*No adverse effect.* EFH consultation with NMFS is not required.

**References:** Bureau of Land Management, 2010. Fish Streams Along the Trans-Alaska Pipeline System, A Compilation of Selected References with Current TAPS Stationing. BLM Open File Report 105. 43 p.

Mecklenburg, Catherine W., T. Anthony Mecklenberg, and Lyman K. Thorsteinson, 2002. Fishes of Alaska. American Fisheries Society. Bethesda, Maryland. 1037 p.

State of Alaska, Alaska Department of Fish and Game. 1978. Alaska's Fisheries Atlas. Volume 2. Edited by R. McLean and K. Delaney. Alaska Department of Fish and Game.

State of Alaska, Alaska Department of Fish and Game. 2014. An Atlas to the Catalog of Waters Important for Spawning, Rearing, or Migration of Anadromous Fishes, Resource Management Region V. Alaska Department of Fish and Game, Habitat and Restoration Division.

## — Appendix B — Wilderness Characteristics Assessment

**NEPA Document No.:** DOI-BLM-AK-F030–2016–0007-DNA

**Serial No.:** F-97103

**Applicant:** University of Alaska at Fairbanks (Patrick Sullivan)

**Location:** Dietrich drainage off the Dalton Highway, more particularly described as within Sec. 36, T. 16 S., R. 10 E., Umiat Meridian, Alaska

**Prepared by:** Robin Walthour for Karen Deatherage

**Date:** 12/14/2015

### Proposed Action

Patrick Sullivan through the University of Alaska at Fairbanks proposes to renew their expired permit to conduct white spruce tree research. They previously held a three (3) year permit and are now pursuing a three (3) year site right-of-way grant to continue the research. Improvements on site are as follows:

Campbell Scientific CR 1000 data logger (housed in white enclosure)

CS 215 air temperature and relative humidity sensor (house in white radiation shield)

LI-190SB photosynthetically active radiation sensor

Tipping bucket rain gauge (TE525, Texas Electronics)

Snow depth sensor (SR50A, Campbell Scientific)

Wind speed and direction sensor (05103, R.M. Young, Traverse City, MI)

20 watt solar panel

40 watt solar panel

100 Ah battery

Action packer (for sensor leaks)

Ten (10) study trees are within 70 feet of the weather station. At each tree is a 2 inch diameter root observation tube installed at a 25° angle from the soil surface. During the summer a sap flow sensor is inserted into the main stem of each tree. Additionally, small game cameras are installed during June and July to monitor growth of the branches. Leads were buried at a depth of 5 cm to avoid conflicts with wildlife. Exposed leads near the action packer and the data loggers are protected using chew-resistant flex tubing. Access is by vehicle on the Dalton Highway and then through an Alyeska access road (approved by Alyeska) and then by foot. Researchers stay at Coldfoot during the 12 days of monitoring each year.

## **Evaluation**

The evaluation of effects on wilderness characteristics on BLM lands within the Utility Corridor includes lands identified in the Nonwilderness Assessment, a special project approved by the BLM Director and conducted by the BLM along portions of the Trans-Alaska Pipeline System (TAPS) corridor in 1980. This assessment identified lands under BLM administration that were considered lacking in the wilderness characteristics as defined by the Wilderness Act of 1964. The assessment was conducted in a manner that met the requirements of Section 603 of the Federal Land Policy and Management Act of 1976 (FLPMA).

The Dalton Highway and Trans-Alaska Pipeline parallel each other for the entire length of the Utility Corridor. The pipeline is 48” in diameter and elevated above ground for much of its length so it is highly visible. The Dalton Highway supplies Alaska’s arctic oilfields and supports considerable industrial traffic year-round. These man-made features and associated human activities are highly visible and audible. Permitted activities such as gravel- and gold mining occur throughout the area and have expanded in some locations. These developments are substantially noticeable and alter the natural character of lands in the Utility Corridor.

The action being considered is located within the Atigun Segment of the Nonwilderness Assessment, which covered approximately 528,000 acres total in 1980. Portions of this segment meet the 5,000 acre minimum size. However it was determined that these segments did not meet the standards for naturalness due to roads, camps, airfields, pipelines, material sites and associated facilities. These disturbances bisect the entire length of the segment. The location for the proposed action may include areas within the Utility Corridor that are outside the nonwilderness. The BLM has determined that, if a project or activity does not negatively affect wilderness characteristics, the permitting process may proceed as usual, regardless of whether an inventory of wilderness characteristics has been completed (Chris Barns, 2012).

## **FINDING**

The proposed action will occur on lands identified as lacking wilderness characteristics and therefore will not affect wilderness characteristics.

## **Type of Assessment/Sources**

- U.S. Department of Interior, BLM, 1980. Nonwilderness Assessment: The Alaska Natural Gas Transportation System, Final Decision. Anchorage, Alaska

- Chris Barns, BLM Representative, Arthur Carhart National Wilderness Training Center, 9 September 2012. “Wilderness Characteristics Guidance for the BLM. Training Module IIID

– LWCs and Proposed Projects

— USGS topographic maps, GIS data, Google Earth images

## — Appendix C — Section 810 Assessment

**NEPA Document No.:** DOI-BLM-AK-F030–2016–0007–DNA

**Applicant:** University of Alaska at Fairbanks (Patrick Sullivan)

**Serial No.:** F-97103

**Proposed Action:** Patrick Sullivan through the University of Alaska at Fairbanks proposes to renew their expired permit to conduct white spruce tree research. They previously held a three (3) year permit and are now pursuing a three (3) year site right-of-way grant to continue the research. Improvements on site are as follows:

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Ten (10) study trees are within 70 feet of the weather station. At each tree is a 2 inch diameter root observation tube installed at a 25° angle from the soil surface. During the summer a sap flow sensor is inserted into the main stem of each tree. Additionally, small game cameras are installed during June and July to monitor growth of the branches. Leads were buried at a depth of 5 cm to avoid conflicts with wildlife. Exposed leads near the action packer and the data loggers are protected using chew-resistant flex tubing. Access is by vehicle on the Dalton Highway and then through an Alyeska access road (approved by Alyeska) and then by foot. Researchers stay at Coldfoot during the 12 days of monitoring each year.

**Location:** Dietrich drainage off the Dalton Highway

**Township/Range:** Sec. 36, T. 16 S., R. 10 E., Umiat Meridian, Alaska

**Evaluation by:** Erin Julianus and David G. Parker

**Date:** 12/15/2015 and 12/22/2015

**Type of Assessment/Sources:**

## **Effect of the proposal on subsistence uses and needs**

Fisheries: Fisheries: The proposed action would not alter the distribution, migration, or location of harvestable fisheries resources. The proposed action will not create any legal or physical barriers that would limit access by subsistence users of the fisheries resources.

### Wildlife:

The proposed action will occur on less than an acre of land west of the Dalton Highway at milepost 233. The research involves a small footprint surrounding a small weather station and some data loggers attached to trees. There will be no significant effects on subsistence resources, uses, or needs.

### Other resources:

The proposed activity will not significantly impact other resources such as berries, wood, or water. Subsistence activities that target these resources occur in a much broader area than where the proposed action is to take place. Therefore, the proposed action will not significantly impact these resources.

### **Expected reduction, if any, in the availability of resources due to alteration in resource distribution, migration, or location:**

None

### **Expected limitation, if any, in the access of subsistence users resulting from the proposal:**

None

### **Availability of other lands, if any, for the purpose sought to be achieved:**

Other lands are available for the purposes sought to be achieved. However, the researcher chose this plot of land due to its relative accessibility from the Dalton Highway. Therefore, no other lands were considered.

### **Other alternatives, if any, which would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes:**

The only alternative that would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes is to not permit any activities on public land. However, such an alternative is not viable because the BLM manages public lands for multiple uses.

### **Finding:**

The proposed activity will not significantly impact other resources such as water, wood, or berries. Subsistence activities that target these resources occur in a much broader area than where the proposed action is to take place. Therefore, the proposed action will not significantly affect subsistence uses and needs.

### **References:**

Bureau of Land Management, 2010. Fish Streams Along the Trans-Alaska Pipeline System, A Compilation of Selected References with Current TAPS Stationing. BLM Open File Report 105. 43 p.

Mecklenburg, Catherine W., T. Anthony Mecklenberg, and Lyman K. Thorsteinson, 2002. Fishes of Alaska. American Fisheries Society. Bethesda, Maryland. 1037 p.

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State of Alaska, Alaska Department of Fish and Game. 2014. An Atlas to the Catalog of Waters Important for Spawning, Rearing, or Migration of Anadromous Fishes, Resource Management Region V. Alaska Department of Fish and Game, Habitat and Restoration Division.