

# Toolik Lake Snow Tower and Supporting Structure

DOI-BLM-AK-F030-2014-0047-EA

## Compliance

This proposed action is within the Utility Corridor Resource Management Plan and Final Environmental Impact Statement approved January 11, 1991. The proposed action is in conformance with plan because it is specifically provided for in the following planning decision (objectives, terms, and conditions):

Appendix N Lands Program Objectives (pages N 7- 9)

5. Make lands available to Federal and State agencies and research organizations for needed administrative and facilities support. Locate facilities development to minimize environmental impacts with emphasis given to previously disturbed sites.
7. Process applications for land use authorizations from the general public, federal and state agencies, and research organizations on a case-by-case basis. Relationship to Statutes, Regulations or Other Plans Title III of FLPMA provides for the issuance of permits or leases to authorize use, occupancy and development of the public lands, including but not limited to, long—term leasing to permit individuals to utilize public lands for habitation, cultivation, and the development of small trade or manufacturing concerns.

## Selected Action

It is my decision to authorize a permit to Daniel Obrist with Desert Research Institute to conduct snow surveys and measure trace gas concentrations in snow by erecting a snow tower and support structure to house equipment for three (3) years at Toolik Research Station, mile post 285 off the Dalton Highway. All mitigations have been incorporated into the terms and conditions which are attached to the permit.

## Compliance with NEPA:

All concerns have been appropriately addressed in the environmental assessment DOI-BLM-AKF030-2014-0047. This includes cultural resources, essential fish habitat, wilderness characteristics and subsistence concerns (see attached EFH, Wilderness Characteristics Assessment, Section 106 and 810 findings). All mitigations measures are being carried forward in the terms and conditions attached to the permit.

## Public Involvement:

The Bureau of Land Management published the environmental assessment on the Central Yukon Field Office website on July 28, 2014. As of August 11, 2014, no comments have been received from the public.

## Rationale:

1. The proposed action is consistent with the use of public lands under the authority of Title III of the Federal Land Policy and Management Act and the regulations found in 43 CFR 2920 and 2800.
2. All concerns are appropriately addressed in the EA DOI-BLM-AK-F030-2014-0047 . This includes cultural resources and subsistence concerns (see attached NHPA Section 106, ANILCA 810 findings, boundary risk, wilderness characteristics and essential fish habitat. The project

has been considered in the context of public health and safety and consistency with regards to Federal, State, and local laws. It is my decision to authorize a permit, case file number F-96789 for conducting snow survey research at Toolik Research Station. Mitigation measures and terms and conditions are attached to the permit.

The No Action Alternative was not chosen as it would not allow for the applicant to conduct snow surveys nor erect a snow tower and structure to house supporting equipment,

### **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.

### **Authorizing Official:**

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/s/ Nichelle W. Jacobson  
Nichelle W. Jacobson  
Field Manager, Central Yukon Field Office

August 11, 2014  
Date

### **Contact Person**

For additional information concerning this Finding, contact.

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Fairbanks, Alaska 99709  
(907) 474-2304 or [rwalthour@blm.gov](mailto:rwalthour@blm.gov)

## — Essential Fish Habitat

**NEPA Document No.:** DOI-BLM-AK-F030–2014–0047 –EA

**Prepared by:** David G. Parker

**Date:** 08/01/14

EFH determination: No adverse effect. Consultation with NOAA’s National Marine Fisheries Service is not required.

### **References:**

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. 2013. 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.

<http://extra.sf.adfg.state.ak.us/FishResourceMonitor/?mode=awc>

## — Wilderness Characteristics Assessment

**NEPA Document No.:** DOI-BLM-AK-F030-2014-0047-EA

**Case File No.:** F-96789

**Applicant(s):** Daniel Obrist with Desert Research Institute

**Location:** Mile post 285 off the Dalton Highway more particularly described as NW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>, Sec. 32, T. 9 S., R. 11 E., Umiat Meridian, Alaska., containing approximately 0.25 acre.

**Prepared by:** Karen Deatherage

**Date:** August 4, 2014

### **Proposed Action**

Daniel Obrist with the Desert Research Institute proposes to establish a snow tower near Toolik Lake Research Station to measure trace gas concentrations in snow over the tundra monthly during snow cover and bi-monthly during no snow cover. He proposes to conduct this research from August 10, 2014 through May 30, 2017. All access would be by foot on established roads, trails and boardwalks.

To support this research they have contracted Polarfield Services who designed, built and would construct the supporting building at the Toolik camp and then sling load, using an R-44 helicopter, to the research site, south of the lake. This structure would house instruments and be placed on a wooden cribbing foundation without any guy wires. The building measures 8 x 16 feet and would be 10 feet on the high side with a single pitch roof. The building would be constructed of a wooden frame with pre-primed T-111 siding, insulated with fiberglass batts in the walls and roof; and the roof would be corrugated metal. The interior walls would be plywood and a half light door would be placed on the southern end of the building.

The construction crew would travel to the site by canoe on Toolik Lake and would install approximately 50 feet of boardwalk from the lakeshore to the building. Concurrent to the construction, the electricians would utilize the boat to pull a cable in a direct route across the lake. This metered cable will be sunk in the lake and would carry an estimated 15 kVa load at 480V which would provide the power for the building.

Next they would erect a 13 foot tower with guying for site meteorology and atmospheric gradient measurements. At the south end of the building they install 65 feet of arctic pipe. Additionally there would be two small soil chambers measuring approximately 20 x 20 cm for conducting research. Lastly this would conduct sampling of snow, soils and soil solution for chemical analysis.

At the end of August 2016, the building and all materials would be disassembled and placed in piles until removal by snow machine after the snow depth and freeze is adequate for travel in the area. All the materials would be removed by May 30, 2017.

### **Evaluation**

The basis for this evaluation is BLM Manual 6310-Conducting Wilderness Characteristics Inventory on BLM Lands, and BLM Manual 6320 - Considering Lands with Wilderness

Characteristics in the BLM Land Use Planning Process, which direct offices to conduct and maintain inventories regarding the presence or absence of wilderness characteristics, and to consider identified Lands with Wilderness Characteristics (LWC) in land use plans and when analyzing projects under the National Environmental Policy Act (NEPA).

Effects on wilderness characteristics on BLM lands within the Utility Corridor are evaluated according to 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 action being considered is located primarily within the Sagavanirktok Segment of the Nonwilderness Assessment, which covered approximately 512,000 acres total in 1980. Portions of this segment meet the 5,000 acre minimum size. However it was determined that the Sagavanirktok Segment 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.

## **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
- U.S.G.S. topographic map Philip Smith Mountains; GIS data; Google Earth images
- Aerial surveys in 2013 and personal knowledge of the area.

## — Section 810 Analysis

**NEPA Document No.:** DOI-BLM-AK-F030-2014-0047 -EA

**Applicant(s):** Daniel Obrist, Desert Research Institute

**Case File No.:** F-96789

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**Location:** Mile post 285 off the Dalton Highway

**Township/Range:** NW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>, Sec. 32, T. 9 S., R. 11 E., Umiat Meridian, Alaska., containing approximately 0.25 acre.

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

**Date:** 8/8/2014 and 08/01/14

**Type of Assessment/Sources:**

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

### Fisheries:

The proposed action will not create any legal or physical barriers that would limit use of or access to nearby fisheries resources by subsistence users.

### Wildlife:

The proposed action is located in Game Management Unit (GMU) 26B. Species of wildlife that are used for subsistence harvest in the area include moose, sheep, bears, furbearers, and small game. These species may temporarily avoid the area when activities and personnel associated with the permitted action are present, but the activity will not permanently impact their distribution in the area. Although subsistence activity occurs throughout the area, the proposed action will not significantly affect subsistence uses and needs.

### Other resources:

The proposed activity will not significantly impact other resources such as wood, water, 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 restrict subsistence uses and needs.

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

The proposed action will not significantly alter the distribution, migration or location of harvestable wildlife resources, nor would it create any legal or physical barriers that would limit subsistence harvest and access.

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

None. Access to resources by subsistence users will not be limited by the proposed action.

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

Other public lands are available for the purposes to be achieved. However, the proposed action is a permitted activity on BLM lands in an area that is designated for research activities, and there is no compelling reason to change the site of operation outside of BLM lands.

## **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 allow or permit any activities that conflict with subsistence uses. However, such an alternative is not viable because the BLM manages public lands for multiple uses.

## **Findings:**

The proposed action will not significantly restrict subsistence uses. Access to subsistence resources will not be hampered by the proposed activity. There is no reasonably foreseeable significant decrease in the abundance of harvestable resources and in the distribution of harvestable resources due to the proposed action.

## **References**