

## A. Background

**BLM Office:** Arctic Field Office LLAKF01000

**Lease/Serial/Case File No.** FF097010

**Applicant:** Dr. Paul Flint  
USGS Alaska Science Center  
4210 University Drive  
Anchorage, Alaska 99508

**Proposed Action Title/Type:** Comparison of putative *Carex subspathacea* between the Arctic Coastal Plain and Yukon Kuskokwim Delta and interpretations of climate effects on grazing systems

**Date of Proposed Action:** July - August 2015

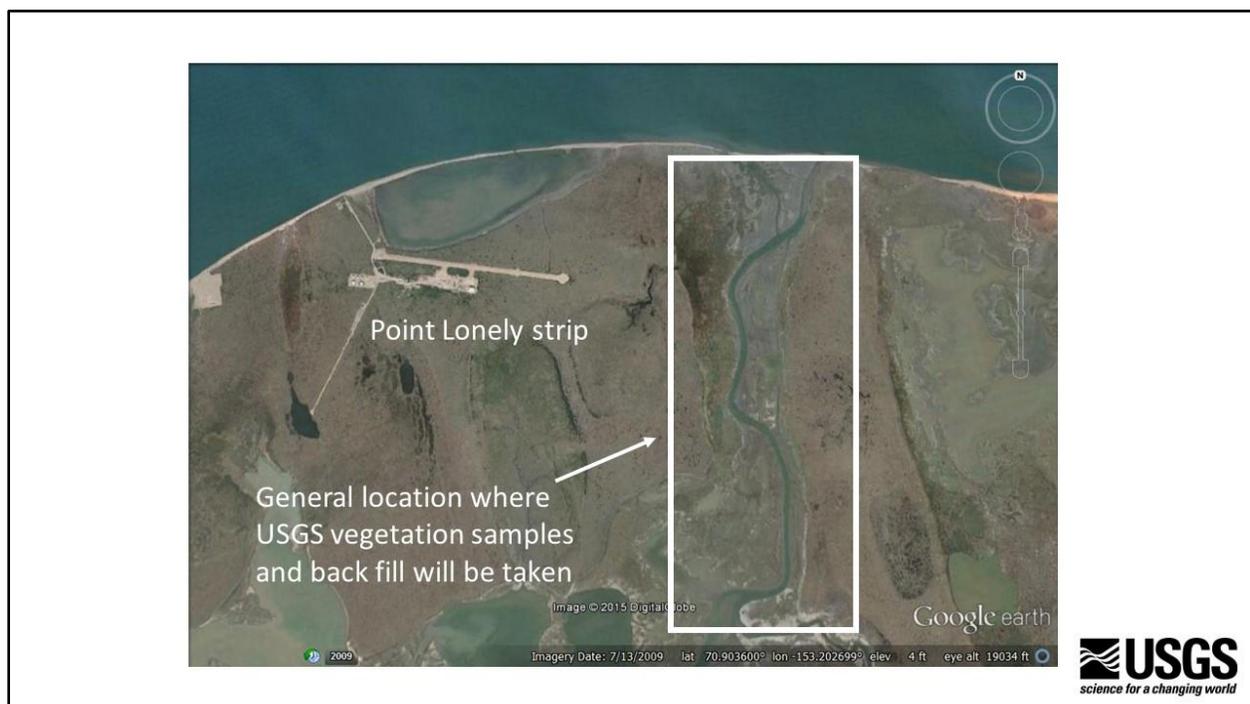
**General Location of Proposed Action:** Arctic Coastal Plain

**Description of Proposed Action:** The applicant, Dr. Paul Flint with the USGS Alaska Science Center, has requested authorization for field activity access, and landing by a floatplane and helicopter on lands within the National Petroleum Reserve in Alaska (NPR-A) managed by the Bureau of Land Management (BLM).

The proposed action is designed to compare *Carex subspathacea*, also known as Hoppner's sedge, between the Arctic Coastal Plain (ACP) and Yukon Kuskokwim Delta (YKD) in order to determine if there are climate effects on grazing systems. Hoppner's sedge is a preferred forage for multiple species of Arctic and sub-Arctic geese. Availability of Hoppner's sedge may be regulating population growth of brant on the YKD. Experimental manipulations on the YKD have shown that in the absence of grazing, uniform stands of Hoppner's sedge convert to a higher biomass, lower quality plant identified as *Carex ramenskii*. Replications of these manipulations on the ACP have not resulted in appreciable changes in apparent species composition or plant quality/biomass. Thus, grazing is required to maintain Hoppner's sedge on the YKD, but not on the ACP. It is unknown if this difference in grazing systems is caused by variation in environmental conditions or genotypic differences between the plants at each site.

Data from this study would be used to assess potential changes in goose forage availability and quality in the Arctic under future warming conditions. This study would compare morphology and plant quality of Hoppner's sedge originating from the YKD and the ACP when grown under identical conditions and determine the genetic similarity between apparent Hoppner's sedge samples from the ACP and YKD as well as *C. ramenskii* samples from the YKD. Samples would be obtained from existing grazing lawns associated with the brant breeding/molting areas along the Smith River within a 6 km radius of Point Lonely. Twenty-

four samples consisting of 160 cm<sup>2</sup> turfs of uniform and pure stands of *C. subspathacea* would be dug with hand tools to a minimum depth of 20 cm, placed in rubber tubs and shipped to the University of Alaska Fairbanks greenhouse. Holes where turfs are removed will be backfilled using hand tools using unvegetated sediment from the main slough of the Smith River. Dr. Flint does not expect the removal of the slough sediments will affect the hydrology of the Smith River. Operations for this project would be based out of the USGS camp on the Colville River delta and no camping would occur on NPR-A lands. The field work would occur over 1-2 days between July 18 - August 1, 2015. Two people would be involved and 6 fixed-wing and 10 helicopter take-offs and landings would be required for this project. There would be no storage of fuel or refueling of aircraft within the NPR-A.



**Figure 1. Applicant Submitted Project Map**

**Legal Description:**

Sections 9-10, 14-16, 21-23, 26-28, 33-36, Township 18 North, Range 5 West, Umiat Meridian

**B. Land Use Plan Conformance**

The proposed action is in conformance with the following planning document: National Petroleum Reserve-Alaska Integrated Activity Plan/Environmental Impact Statement (IAP/EIS) dated November 2012 and associated Record of Decision dated February 2013.

The proposed action is in conformance with the Naval Petroleum Reserves Production Act which allows for the authorization of uses consistent with the purposes of the Act.

**C. Compliance with NEPA:**

The IAP/EIS Record of Decision for the NPR-A developed stipulations and best management practices applicable to all activities in NPR-A. The stipulations and best management practices applicable to the proposed action will be provided, along with project-specific mitigation, to the applicant and are entitled: “FF097010 USGS Carex subspathacea Study 2015 Permit Stipulations.”

The Proposed Action is categorically excluded from further documentation under the National Environmental Policy Act (NEPA) in accordance with 516 DM 2, Appendix 1, or 516 DM 11.9. Specifically the proposed action meets the criteria for a categorical exclusion under 516 DM 11.9, BLM H-1790-1 National Environmental Policy Act Handbook Appendix 4 (F-10) BLM Categorical Exclusions.

**“Nondestructive data collection, inventory (including field, aerial, and satellite surveying and mapping), study, research, and monitoring activities.”**

This categorical exclusion is appropriate in this situation because there are no extraordinary circumstances potentially having effects that may significantly affect the environment. The proposed action has been reviewed, and none of the extraordinary circumstances described in 516 DM 2 apply.

<b>Extraordinary Circumstances</b>	<b>Yes</b>	<b>No</b>
2.1 Have significant impacts on public health or safety.		<b>X</b>
2.2 Have significant impacts on such natural resources and unique geographic characteristics as historic or cultural resources; park, recreation or refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands (Executive Order 11990); floodplains (Executive Order 11988); national monuments; migratory birds; and other ecologically significant or critical areas.		<b>X</b>
2.3 Have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources [NEPA Section 102(2) (E)].		<b>X</b>
2.4 Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks.		<b>X</b>
2.5 Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects.		<b>X</b>
2.6 Have a direct relationship to other actions with individually insignificant but cumulatively significant environmental effects.		<b>X</b>
2.7 Have significant impacts on properties listed, or eligible for listing, on the National Register of Historic Places as determined by either the bureau or office.		<b>X</b>

