# NATIONAL SCIENCE FOUNDATION
# OFFICE OF POLAR PROGRAMS
# ARLINGTON VIRGINIA

# RECOVERY OF POTENTIALLY SIGNIFICANT HISTORIC PROPERTIES FROM LITTLE DELTA DUNE SITE, ALASKA ENVIRONMENTAL ASSESSMENT

# EXECUTIVE SUMMARY AND FINDING OF NO SIGNIFICANT IMPACT

The National Science Foundation (NSF) prepared an Environmental Assessment (EA) that evaluates the potential environmental and socioeconomic consequences associated with recovery of potentially significant historic properties from the Little Delta Dune Site, Alaska. The attached EA, which is incorporated by reference, was prepared pursuant to U.S. Council on Environmental Quality (CEQ) regulations (Title 40, U.S. Code, Parts 1500-1508) for implementing the procedural requirements of the National Environmental Policy Act (NEPA) and 45 Code of Federal Regulations (CFR) 640 for NSF's compliance with the NEPA.

During preparation of the EA, it was determined that no action alternatives other than the Proposed Action would satisfy the scientific purpose and need of the Proposed Action without substantially compromising the science mission and objectives. Accordingly, only the Proposed Action and No Action Alternative were evaluated.

## Purpose and Need

The Little Delta Dune site is a Late Pleistocene-Early Holocene multi-component site within a 2,000-acre inactive dune field in the Tanana Basin, central Alaska. Initial archaeological and geomorphological investigations of the site identified four components in well-stratified contexts, with the oldest component dated to the late Pleistocene. Subsequent investigations at the site revealed the presence of potentially significant cultural resource materials that could add substantially to the body of knowledge on the Late Pleistocene archaeology of Alaska.

The purpose of the project is to excavate and recover materials from the site that may have the potential to contribute significant data regarding the archaeological record of northern North America based on the high scientific value of the materials previously discovered on the Little Delta Dune site. The need for the project is to recover important archaeological materials from the Little Delta Dune site that have been identified prior to the onset of winter to prevent potential damage to these historic properties from natural causes or potential vandalism. An additional need for the project is to add to the body of knowledge.

## Action Alternative

Under the proposed action NSF would fund the recovery of potentially significant archaeological materials from the Little Delta Dune site near the Tanana River in Alaska. Site access will be via vehicle to a helicopter landing area along the Richardson Highway followed by helicopter ferry to transport personnel and equipment across the Tanana River to the site. Investigators will camp at the site during the recovery effort with food and supplies brought in and waste carried out for proper disposal. An approximately 10-foot by 10-foot pit would be excavated to a depth of up to 15 feet with excavated material stockpiled. The pit and excavated material would be covered with plastic sheeting to prevent erosion.

## No Action Alternative

Under the no action alternative, the Little Delta Dune site would not be excavated and no archaeological materials would be recovered. The potential will continue for damage or loss of archeological materials from natural causes or vandalism. The no action alternative would not meet the purpose and need of the proposed action, but is analyzed to provide a baseline for comparison of the potential impacts of the proposed action.

## Environmental Consequences

There would be no potential for impacts to geology, climate, air quality, noise with regard to human receptors, air space, wetlands, floodplains, utility infrastructure or service, transportation, sensitive ecological communities, aesthetics and visual resources, socioeconomics, human health and safety, environmental justice populations, protection of children. Potential impacts to other resource areas are described in the following sections. There would be temporary disturbance to floral and faunal communities from the recovery work and site access. There is abundant open space for outdoor recreation in the area and the temporary loss of potential use from the project area would be a negligible impact.

Soils and permafrost - Soil disturbance would be temporary and limited to the work period. Wheeled vehicles would not operate on the site. Excavated material would be stockpiled adjacent to the work area and returned to the pit when work is complete. Exposed soil and the pit would be covered with plastic sheeting to prevent erosion. Inert biodegradable mulch would be used to limit the erosion potential during the natural revegetation period. Permafrost is not present in the work area.

Water Quality - The proposed action would have no direct impacts on water quality and indirect impacts on water quality. There are no waters in the work area and an approximately 1,400 foot forested buffer surrounding the work area. Best management practices would be utilized to further limit erosion and runoff from disturbed soils and minimize the potential for indirect impacts to offsite waters. No toxic chemicals or potential chemical pollutants would be used onsite.

Sensitive Species - Helicopter and chainsaw operation could disturb sensitive fauna and could interrupt foraging activities. The amount of similar habitat in the region would allow animals to relocate temporarily.

Cultural Resources - The National Science Foundation would mitigate the adverse effects to the significant historic property known as the Little Delta Dune site through data recovery

combined with dissemination of information. A memorandum of agreement (MOA) between the NSF and the Alaska State Historic Preservation Officer (AKSHPO), and an amendment to this MOA, specify the following mitigation activities that will be implemented:

- Data recovery activities shall locate, recover, and document significant archaeological information at the site.
- The data recovery work will be in accordance with a research and data recovery plan.
- The lead agency will facilitate the Tribal community to perform a ceremony or observe a cultural protocol to show their respect, as appropriate, to any significant historic properties found in their traditional lands.
- Immediately preceding the recovery effort, a pre-excavation meeting will be convened to explain the scientific methods and treatment of the archaeological materials.
- Standard archaeological methods will be used and supplemental methodologies supplied to the funding agency.
- All materials collected will be secured in an environmentally controlled storage repository where access will be limited to project personnel, Tribal officials, authorizing agents, and other professionals.
- A sufficient amount of ground will be removed to recover all archaeological materials associated with the discovery to protect them from vandalism.
- Tribal and State officials will be notified at least 14 days in advance of work and the lead federal agency will provide transportation to the site for these officials for the opportunity to observe the recovery procedure.
- Determining the types of scientific analysis and final disposition of the archaeological materials will be deferred to a later phase of consultation.

Should there be inadvertent discovery of additional archaeological materials during the recovery effort, appropriate agency and tribal notifications will be made and additional consultation will be conducted.

Cumulative Effects - Because impacts from the proposed action would be confined to the immediate project area and impacts from the proposed action would cease when the project is complete, there would be no interaction between the proposed action and any other past, present, or reasonably foreseeable future actions. No cumulative effects would be likely.

## Conclusion

Based on the analysis in this EA, NSF has determined that the proposed action for recovery of potentially significant historic properties from the Little Delta Dune Site, Alaska, with the condition that appropriate BMPs and mitigation measures specified in the MOA with AKSHPO, would be implemented as needed and additional AKSHPO coordination would be completed if necessary, is not a major Federal action having significant impacts to the natural or human environment within the meaning of NEPA. Therefore, a Finding of No Significant Impact is issued for the Proposed Action and no Environmental Impact Statement is required.

Approved:

Renee D Crain 8-17-10

Recommending Official Date
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