

## MMS ENVIRONMENTAL STUDIES PROGRAM: ONGOING STUDIES

**Region:** Alaska

**Planning Areas:** Beaufort Sea

**Title:** Subsistence Mapping at Nuiqsut, Kaktovik, Barrow, and Wainwright:  
Past and Present Comparison (AK-02-07)

**MMS Information Needs to be Addressed:** The information will be used for NEPA analysis and documentation for Beaufort Sea Lease Sales and DPPs.

**Total Cost:** \$400,000

**Period of Performance:** FY 2002-2008

**Conduction Organization:** Stephen A. Braund and Associates

**MMS Contact:** [Chief, Alaska Environmental Studies Section](#)

### **Description:**

*Background* MMS conducted studies providing detailed mapping of a wide range of subsistence activities for Nuiqsut, Kaktovik, and Barrow about 1990. Information is available from recent subsistence scientific, private, and government sources. For example, ADF&G has done some detailed mapping of subsistence activities for these three North Slope s villages since 1990 but the mapping needs to be put in usable form. MMS assesses cumulative effects in EISs and, therefore, needs documentation on more current subsistence patterns for comparison between 1990 and the present. Exploration on the offshore, including the OCS, and much onshore development has taken place since 1990. Much oil and gas infrastructure has been built onshore since 1990. Northstar is the first offshore oil development connecting to the onshore developments centered at Prudhoe Bay and it began production in 2001. This study will coordinate with the documentation of subsistence activities at Cross Island, which is part of the ongoing “Arctic Nearshore Impact Monitoring In Development Areas” (ANIMIDA) study and continuation of that study. It will utilize information from the MMS-sponsored study which compiled GIS overlays of oil-industry and other human activities for the 1979-1998 period in the Beaufort Sea.

*Objective* Develop a Geographic Information System (GIS) to map and analyze changes in and potential interactions between subsistence activities and oil industry activities.

### *Methods*

1. Consult with key organizations to refine the scope of work for the study and to plan for conduct of the study. Such organizations may include the NSB Planning and Wildlife Management Departments, AEWG, Iñupiat Community of the Arctic Slope, the Native Villages of Barrow, Nuiqsut, and Kaktovik, and ADF&G Subsistence Division, and others as appropriate.
2. Compile information regarding subsistence geospatial patterns from MMS sponsored and other studies conducted in Nuiqsut, Kaktovik, Barrow, and Wainwright during the 1990s.

- Assess the quality of existing geo-spatial data and convert to GIS format where possible.
3. Compile current information on subsistence activities and use of resources for Nuiqsut, Kaktovik, Barrow, and Wainwright as available from recent work conducted by scientific, private, and government entities. Gather primary source data regarding current subsistence effort, and use of resources from knowledgeable key informants resident in Nuiqsut, Kaktovik, and Barrow. The data collection effort will coordinate with other relevant MMS studies.
  4. Generate maps depicting where subsistence activities are currently taking place and at what level of intensity. Products will show potential changes in harvests, access to resources, competition for resources, costs, effort, and levels of risk.
  5. For each subsistence activity map, provide context describing in standardized and specific terms the nature and source of the data.
  6. Develop overlay maps depicting changes in subsistence activities and changes in oil and gas activities. Develop analysis to address potential cumulative-effect dynamics occurring between subsistence and oil and gas activities. Develop descriptive context to augment the analysis.
  7. Review and evaluate effectiveness of current federal and state mitigation associated with oil and gas activity regarding potential displacement of subsistence resources and resource users.
  8. Review graphic and written analysis with key informants and key organizations including but not limited to those identified in 1 above. Disseminate ongoing and final products of study to local residents through village workshops and integrate workshop feedback into the final analysis.
  9. Input all final spatial information on subsistence and industry activity into a GIS format.
  10. Make resulting information available to the public on CD-ROM.

**Current Status:**

Interviews have been completed for Nuiqsut, Kaktovik, and Barrow. The database has been designed and populated with all the data. The contractor is now preparing the final subsistence maps and overlays for the project.

**Final Report Due:** June 30, 2008

**Publications Completed:** None

**Affiliated WWW Sites:** <http://www.mms.gov/alaska/>

**Revised Date:** March 2008