

Update to BLM Alaska NPR-A Subsistence Advisory Panel  
Shell Nearshore and Onshore Environmental Studies Program  
October 22, 2012

In anticipation of successful oil and gas exploration in the Chukchi Sea, Shell Exploration and Production has been working to develop an understanding of the nearshore and onshore environments of the North Slope. This information will aid in the identification and selection of potential development opportunities including the location of production infrastructure such as pipelines, staging areas, and pump stations. In 2012, this program was expanded significantly and included a survey area of more than 21,000 square miles (roughly the size of West Virginia) within the National Petroleum Reserve- Alaska. Field studies were focused on developing an understanding of the physical, biological, and social environment. Various types of scientific information were collected by Shell at more than 1,000 individual study sites, transects, and plots. Shell contracted scientists also conducted first-of-its-kind fish and bird population surveys along the Chukchi coast near Wainwright. These environmental studies are integrated with preliminary engineering and design efforts that are oriented at identifying infrastructure and construction requirements. While our field efforts required extensive use of helicopters to deploy investigators across the large study area, we worked extensively with local subsistence advisors and hunters to reduce the potential for impacts.

Shell conducted an unprecedented level of scientific data gathering during the summer of 2012. Some highlights are as follows:

- The project conducted field work within the NPR-A study area continuously for 97 days between mid-June and mid-September 2012. Field work was conducted safely with no significant injuries or environmental incidents.
- Coastal Processes: Deployed 3 coastal meteorological stations with time-lapse cameras and numerous LIDAR (Light Detection and Ranging) surveys were conducted.
- Surface Hydrology: Reconnaissance-level stream and lake data collection efforts were conducted, including cross-sections and discharge measurements at 62 river sites and bathymetry surveys at 20 lakes.
- Habitat Assessment: Crews completed 559 Ecological Land Survey (ELS) plots and 106 remote sensing plots across a diverse range of landscapes in the coastal plain, foothills and major floodplains.
- Wildlife Surveys
  - Fish Studies: 47 fish seining operations were conducted along the coast and 59 fish trawling operations were conducted in the shallow nearshore environment.
  - Bird Studies: coastal and marine bird surveys were conducted to compliment the recent and ongoing studies farther offshore; 24 transects were completed.
- Cultural Resources & Paleontology: Our project archaeologist identified cultural and paleontological resources at 36 distinct sites.