



U.S. Department of the Interior  
Bureau of Land Management

**Bureau of Land Management (BLM) Alaska  
Arctic District Office**

**October 2023**

**Update on BLM North Slope Permitting and Activities**

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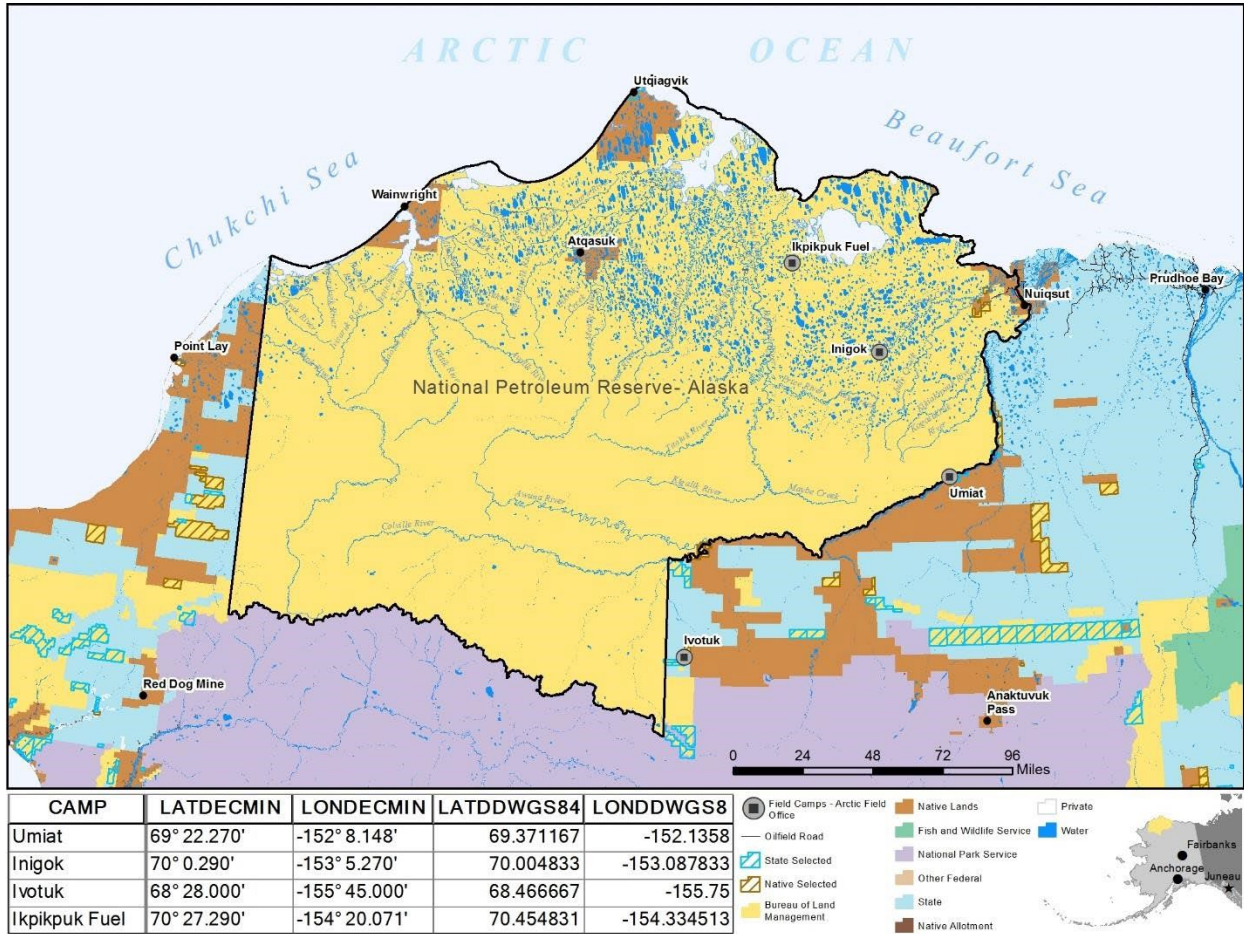
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## **BLM Arctic District Office Management Overview**

The BLM’s Arctic District Office, based in Fairbanks, Alaska, manages 22.6 million acres of public lands within the National Petroleum Reserve in Alaska, an additional 1 million acres of surface management outside of the NPR-A, and 1.6 million acres of subsurface estate in the Coastal Plain area of the Arctic National Wildlife Refuge, all on Alaska’s North Slope.

The BLM assumed management of the NPR-A in 1976 when the Naval Petroleum Reserves Production Act (NPRPA) transferred the Reserve from the Navy to the Department of Interior, and the NPRPA is the guiding legislation for oil and gas leasing, exploration and development within the Reserve.

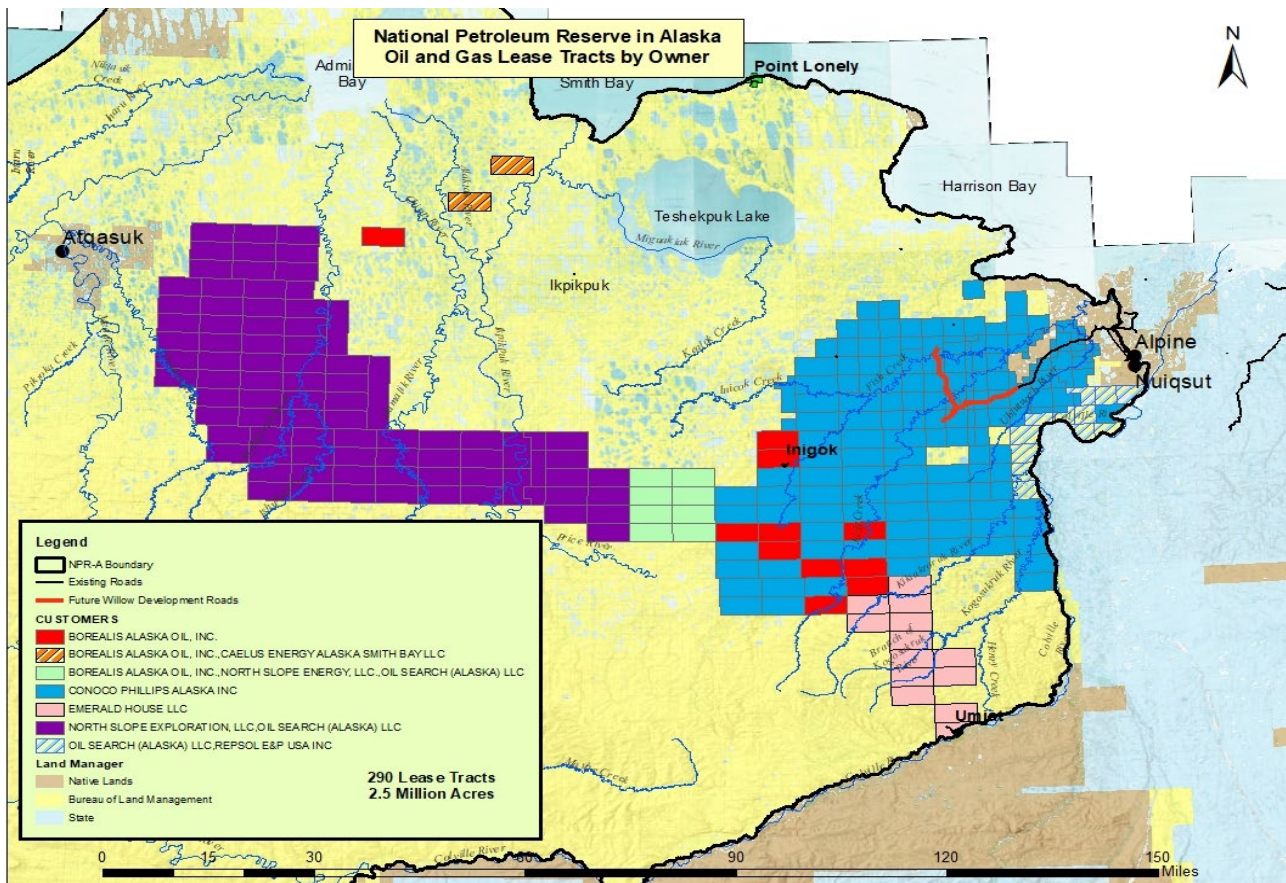


The NPR-A includes approximately 23 million acres of public lands and constitutes the largest contiguous block of public lands managed anywhere in the United States. Four predominantly Iñupiaq (Alaska Native) communities (Utqiagvik, Atqasuk, Nuiqsut, and Wainwright) and their corresponding Alaska Native Claims Settlement Act village corporation lands are located within the NPR-A. The Arctic Office has a Field Station in Utqiagvik (Barrow) and in Nuiqsut and two remote logistic facilities in NPR-A: Inigok and Umiat.

In the northeast corner of the NPR-A, oil development is expanding westward from the Colville River Delta. There are currently 290 leases covering 2.5 million acres in the NPR-A and ConocoPhillips Alaska, Inc. (CPAI) is the largest leaseholder (164 out of 290 leases).

For oil production, Greater Mooses Tooth-1 was approved in 2015 as a 12-acre pad which at full capacity can hold 33 wells. Currently 7 wells have been drilled for production of the Lookout Participating Area. Production began in October 2018, peaked at approximately 13,500 barrels per day but has since dropped to roughly 2,000 barrels per day. Greater Mooses Tooth-2- was approved

in 2018 as a 14-acre pad that can hold up to 48 wells. It produced first oil December 12, 2021, and current production is approximately 15,000 barrels per day.



NPR-A Leases as of October 2023

The Arctic District Office also manages the Central Arctic Management Area (CAMA) Wilderness Study Area (WSA), which consists of eight separate tracts of land (totaling 259,000 acres) located between the NPR-A and the Dalton Corridor. Subsistence hunting and personal recreation are allowed in the WSA, and the BLM authorizes land use of the area for commercial activities such as float trips, wildlife viewing and guided hunts. Within CAMA is also the 29,000-acre Nigu-Iteriak Critical Environmental Concern (ACEC) that was established to protect geological and cultural resources. Arctic District also manages the CAMA's Mesa Site, which is the first well-documented Paleoindian site discovered in the North American Arctic and a key source of information about the peopling of the new world. There are no facilities, maintained trails or roads leading to or within the CAMA. Recreational vehicle use is limited to subsistence users; other users typically access the area via aircraft and raft.

## **Ongoing and Recently Completed Permits and Projects<sup>1</sup>**

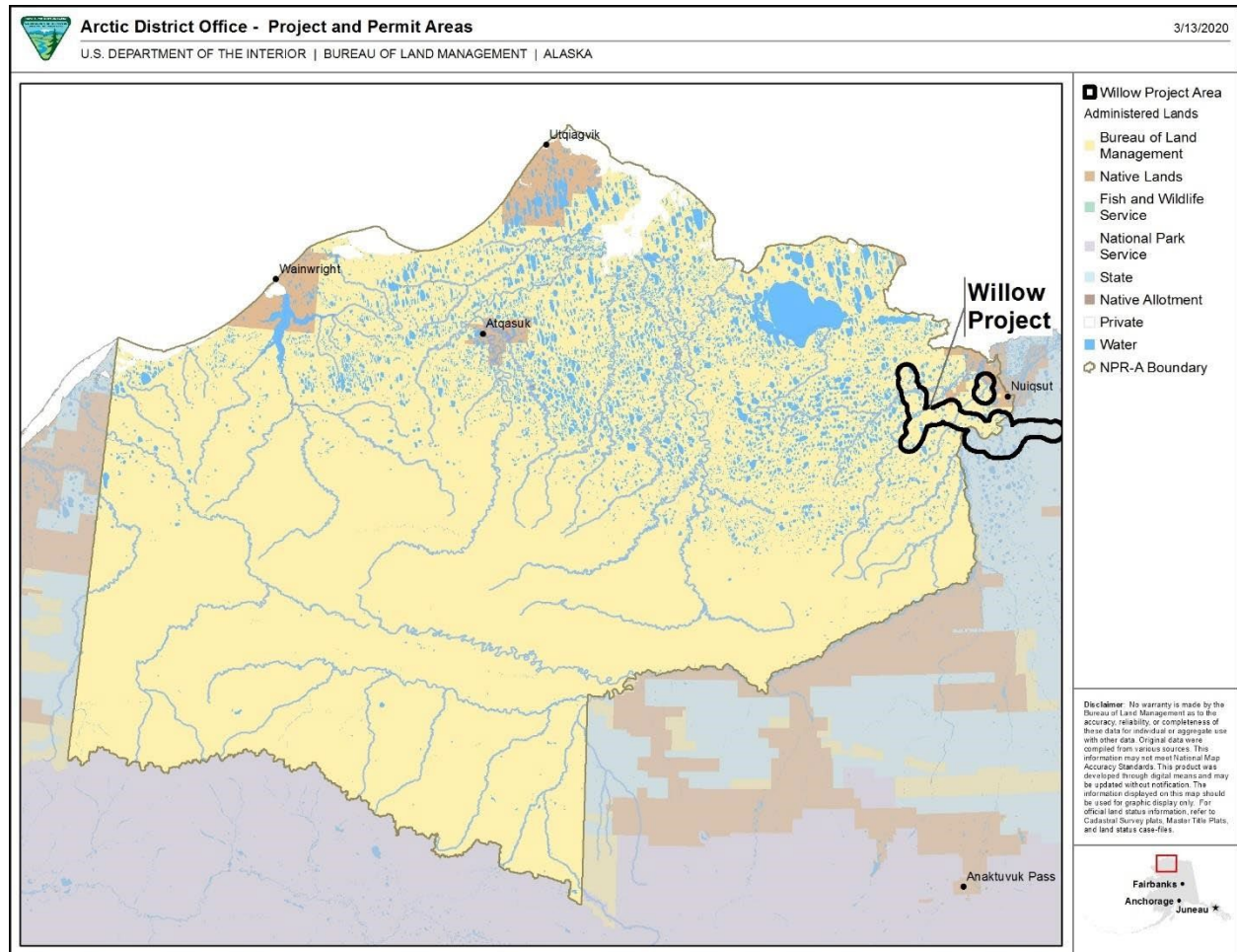
BLM's Arctic District Office generally completes 40-50 National Environmental Policy Act (NEPA) actions annually, including numerous Categorical Exclusions and Environmental Assessments, for a variety of different projects including activities related to oil and gas development, special recreation permits (SRPs), Rights-of-Ways (ROWs) and permits for research. Staff worked on 3 large-scale Environmental Impact Statements (EISs) in 2023, two of which are ongoing. Many of the office's ongoing and recent permits are described below.

### **Willow Development**

The BLM initiated a master development plan EIS to evaluate development of the Willow oil prospect in August 2018. The proposed Willow project consists of a central processing facility, infrastructure pads, up to five drill pads with up to fifty wells on each pad, access and infield roads, an airstrip, pipelines, a gravel mine, and updates to an existing dock at Oliktok Point to support module delivery via sealift barges. The BLM published the Willow Master Development Plan Final Environmental Impact Statement (EIS) on August 14, 2020, and signed the Record of Decision in October 2020.

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<sup>1</sup>*This is not a complete list. See BLM's online NEPA page for all permitting: [https://eplanning.blm.gov/epl-frontoffice/eplanning/lup/lup\\_register.do](https://eplanning.blm.gov/epl-frontoffice/eplanning/lup/lup_register.do)*



### Location of the Willow Master Development Plan Project Area

The BLM was sued for failure to comply with the National Environmental Policy Act in producing the Willow EIS and a stay was issued for the Willow project in February 2021 while the lawsuit proceeded through the court system. A subsequent ruling from the Alaska District Court in August 2021 remanded the EIS to the BLM to address two identified deficiencies related to the range of alternatives and the analysis of foreign greenhouse gas emissions. The Biological Opinion for the Willow project was also remanded to the USFWS.

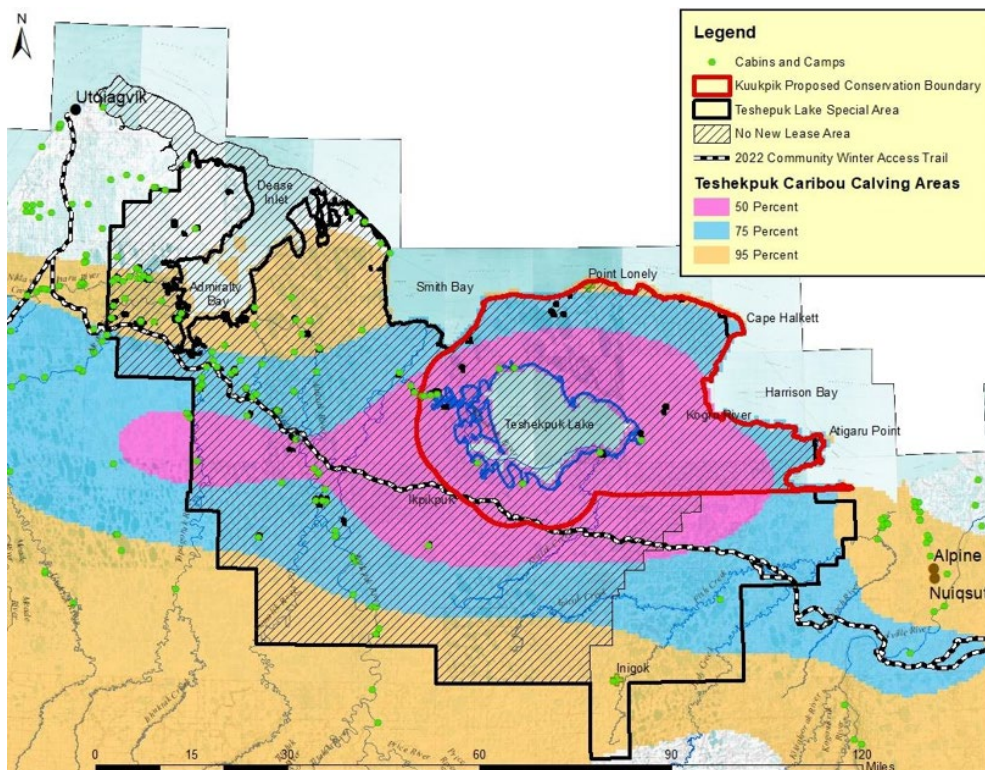
The BLM developed a new alternative (Alternative E) in response to the Court's ruling. The new alternative reduced the total number of drill sites to four and made other project refinements to reduce impacts consistent with the Court's direction. The Record of Decision for the Willow Master Development Plan was signed on March 13, 2023, and reduced the size of the project by denying two of the five drill sites proposed by ConocoPhillips. The company relinquished rights to approximately 68,000 acres of existing leases in the NPR-A, including approximately 60,000 acres in the Teshekpuk Lake Special Area.

## Mitigation Measure 27

The Willow Record of Decision includes a specific Mitigation Measure (Measure 27) requiring the BLM to submit within 120 days a report with recommendations for a possible conservation instrument to provide durable, long-term habitat protections for the Teshekpuk Caribou Herd to fully offset impacts of the project on that herd using existing authorities and including a proposal for stakeholder engagement and implementation, if approved.

The requested report went forward to DOI, Principal Deputy Assistant Secretary of Land and Minerals Management, Tommy Beaudreau for consideration. The report emphasizes the many benefits and options for working with stakeholders that could help further the goals of conservation in this area.

We are now waiting for direction from our senior leadership on how and when to move forward with this.



Teshekpuk Lake Special Area, Caribou Calving Areas, and the Kuukpik Proposed Conservation Boundary



## **Current Activity**

One cell of the Willow gravel mine was opened in March 2023. As of August 2023, 2 miles of gravel road with culverts to allow water flow has been constructed as a continuation of the Greater Mooses Tooth (GMT) gravel road. The road heads southwest from the GMT production facility toward the future site of the Willow development. No gravel pads have been constructed yet and there are plans open a second cell of the gravel mine and continued construction on the gravel road, as well as construction of gravel pads and the airstrip during the 2023/2024 winter season.



Willow Road Construction, August 2023

## **Oil and Gas Leasing Program for the Coastal Plain of the Arctic National Wildlife Refuge**

The Draft Supplemental Environmental Impact Statement (SEIS) was published on September 8<sup>th</sup>, 2023, beginning a 45-day public review and comment period. The draft SEIS, including information on how to participate in the review and comment period and dates of locations public meetings, can

be found at the following link:

<https://eplanning.blm.gov/eplanning-ui/project/2015144/510>

#### Background Information:

In September 2019 and in connection with Public Law 115-97 (Tax Act), the BLM completed the Coastal Plain Oil and Gas Leasing Final Environmental Impact Statement (EIS) and then issued a Record of Decision (ROD) in August 2020. The Tax Act established that the Secretary of the Interior, acting through the BLM, shall establish a competitive oil and gas program for the leasing, development, production, and transportation of oil and gas in and from the Coastal Plain of the Arctic National Wildlife Refuge (Coastal Plain). Per the Tax Act, the Secretary shall manage the oil and gas program in the Coastal Plain in a manner similar to the administration of lease sales under the Naval Petroleum Reserves Production Act of 1976 (NPRPA). The Tax Act included the requirement to hold not fewer than two area-wide lease sales within 10 years. The 2020 ROD approved a program to implement the Tax Act. The first lease sale was held on January 6, 2021. On January 19, 2021, the BLM issued leases on nine of the tracts. On June 1, 2021, the Secretary of the Interior issued Secretary's Order 3401 which directed “a temporary halt on all Department activities related to the leasing program in the Arctic Refuge pending a new, comprehensive analysis of the potential environmental impacts of the Program to address identified legal deficiencies. On August 4, 2021, a Notice of Intent was published in the Federal Register kicking off the Supplemental EIS (SEIS) process. The comment period for this scoping period ended on October 4, 2021.

The purpose of the public supplemental EIS process was to determine the scope of issues to be addressed and to identify the significant issues, including any legal deficiencies in the 2019 Final EIS/2020 ROD, related to an oil and gas leasing program within the Coastal Plain.

Supplemental analysis includes (but is not limited to):

- Revision of the reasonably foreseeable development (RFD) and areas available for leasing
- An updated range of alternatives allowing for less than 2,000 acres of surface development
- Updated analysis of greenhouse gas emissions
- New information related to subsistence resources (e.g., fish, marine mammals, caribou) and subsistence use/access
- A wider range of potential development outcomes
- Revision of lease stipulations and required operating procedures

The USFWS is now a joint-lead on the development of the SEIS (they served as a cooperating agency on the EIS). The cooperating agencies currently are the State of Alaska, the Native Village of Venetie Tribal Government, the Venetie Village Council, the Arctic Village Council, The Native Village of Kaktovik, The Inupiat Community of the Arctic Slope, and the Environmental Protection Agency. New cooperating agencies can be added at any time if they have special expertise or jurisdiction by law over a resource/issue covered by the SEIS.

Information received during the scoping process helped to develop the SEIS and guide the scope of the environmental analysis. The BLM and USFWS continue to work collaboratively with



determine if any of the lands should be withdrawn to ensure the public interest in the lands was protected. Some of the withdrawals created by this section of ANCSA identified additional lands for selection by ANCSA Native Corporations and the State of Alaska. These withdrawals had a secondary purpose of classification for protection of the public interests. The withdrawals are what we now call “d-1 withdrawals.”

In many cases, the original purpose of the d-1 withdrawals is no longer applicable; however, without land use planning guidance for these lands, revocation cannot take place.

In 2004, the Alaska Land Transfer Acceleration Act (ALTAA) Sec. 207, addressed the lingering d-1 withdrawals. ALTAA required the Secretary review the d-1 withdrawals to determine if any portion of the withdrawn lands can be opened for entry under the public land laws.

In 2006, BLM Alaska prepared the required Sec. 207 report on the withdrawals for the Secretary, which was then submitted to Congress. The report recommended revoking the d-1 withdrawals on approximately 50.1 million acres in Alaska of BLM-managed land. In the report, the BLM recommended that the land use planning process provided the most appropriate way to address review of these withdrawals. The report also recommended maintaining d-1 withdrawals on approximately 6.7 million acres until a more appropriate withdrawal or land management prescription can be put into place through the land use planning process.

In 2018, BLM Alaska revoked the first set of d-1 withdrawals in the Goodnews Bay area per the recommendation of the Bay Resource Management Plan. In 2019, d-1 withdrawals in the Fortymile region of the Eastern Interior planning area and the Bering Glacier region of the East Alaska planning area were revoked consistent with the recommendations made in their respective resource management plans.

In January 2021, BLM Alaska published Public Land Order (PLO) 7899 which would have revoked d-1 withdrawals on BLM-managed land within the Kobuk-Seward Peninsula planning area. At the same time, BLM Alaska prepared PLOs for the Ring of Fire, Bay, Bering Sea – Western Interior, and East Alaska planning areas, totaling approximately 28 million acres for all five planning areas; however, these PLOs were never published in the Federal Register. The Department of the Interior (DOI) subsequently identified legal defects in the decision-making processes that led to these PLOs and as a result, deferred the opening order for PLO No. 7899 (Kobuk-Seward Peninsula) until April 16, 2023, and deferred publication for the remaining PLOs (7900 – 7903) until further review is complete.

In the interim, DOI directed the BLM to prioritize completing an environmental assessment (EA) to open lands within the five planning areas to selection through the Alaska Native Vietnam-era Veterans Land Allotment Program established by Section 1119 of the John D. Dingell, Jr. Conservation, Management, and Recreation Act of 2019. This EA resulted in PLO No. 7912, which

partially revoked d-1 withdrawals and opened approximately 27 million acres to selection under the program.

BLM is now addressing the legal defects in the decision-making process, including ensuring compliance with the requirements of the National Environmental Policy Act by preparing an environmental impact statement (EIS). The EIS will consider the impacts of revoking the d-1 withdrawals on lands described in 2021 public land orders 7899, 7900, 7901, 7902, and 7903. The proposed revocations have the potential to allow obtaining mining claims (location) or applications for title (entry) under public land laws, including the mining laws, and may result in changes to the land use. The EIS will also consider a range of alternatives. Alternatives could include full or partial revocation of the ANCSA 17(d)(1) withdrawals, meaning that we could evaluate an alternative that revokes some areas of the withdrawals but leaves other areas with the withdrawal in place. The DEIS is anticipated to be published in the late fall/early winter of 2023 and a 60-day public comment period will begin.

More project information can be found at: <https://eplanning.blm.gov/eplanning-ui/project/2018002/510> or contacting Rachel Jones ([rajones@blm.gov](mailto:rajones@blm.gov)).

## **Proposed NPR-A Rule**

The Bureau of Land Management (BLM) is proposing to update its regulations for the management and protection of the National Petroleum Reserve in Alaska (NPR-A). The BLM manages the NPR-A in accordance with the Naval Petroleum Reserves Production Act of 1976 (NPRPA), which requires the BLM to balance oil and gas development with the protection of fish and wildlife, subsistence, recreational, and other values. The proposed rule would fulfill this duty by establishing a new framework for balancing development with the protection of Special Areas – lands that harbor significant subsistence, recreational, fish and wildlife, historical, and scenic values – and the management of surface resources throughout the NPR-A. This framework, which has not been updated substantially since the early 1980s, would improve the BLM's ability to respond to changing conditions in the Arctic while providing transparency in conservation and development decisions. The proposed regulations would also enhance protections for subsistence uses and resources throughout the NPR-A, particularly within the Teshekpuk Lake, Utukok River Uplands, and other Special Areas.

Project website - <https://www.blm.gov/about/laws-and-regulations/NPR-A-Rule>

Fact Sheet - [https://www.blm.gov/sites/default/files/docs/2023-09/BLM-NPR-A-Proposed-Rule-Fact-Sheet\\_20230925.pdf](https://www.blm.gov/sites/default/files/docs/2023-09/BLM-NPR-A-Proposed-Rule-Fact-Sheet_20230925.pdf)

FAQs - [https://www.blm.gov/sites/default/files/docs/2023-09/BLM-NPR-A-Proposed-Rule-FAQs\\_20230925.pdf](https://www.blm.gov/sites/default/files/docs/2023-09/BLM-NPR-A-Proposed-Rule-FAQs_20230925.pdf)



## **Ptarmigan Seismic Survey**

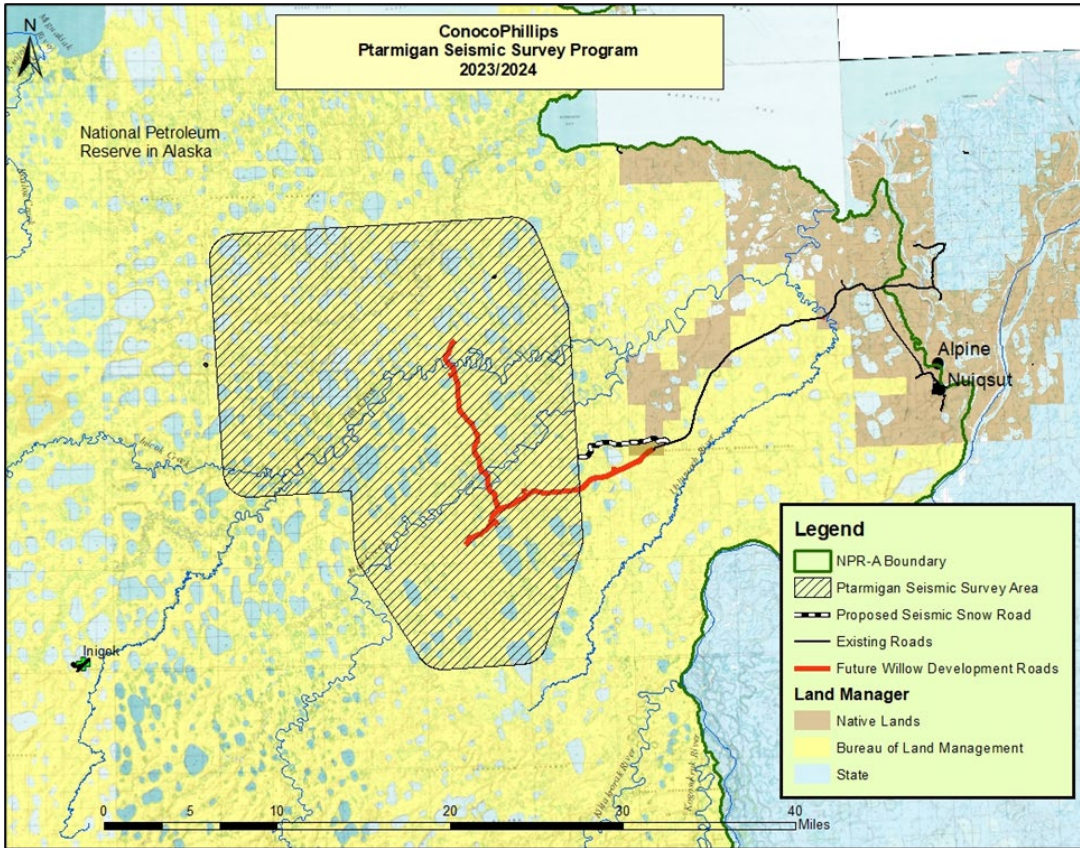
ConocoPhillips Alaska, Inc. (CPAI) has requested authorization from the Bureau of Land Management (BLM) to conduct a three-dimensional (3-D) geophysical winter seismic survey and associated activities on the eastside of the National Petroleum Reserve in Alaska (NPR-A) for the 2023-2024 winter season. Air-supported cleanup and inspections would take place the following summer. The proposed Project Area would be located on lands managed by the BLM Arctic District and the Kuukpik Native Corporation. The seismic survey would be conducted entirely on BLM managed lands (approximately 272,044 acres).

The proposed 2024 Ptarmigan seismic survey would use sound wave recording technology (seismic vibroseis) to refine the oil and gas reservoir boundaries and help determine the most efficient development of the Willow Oil and Gas project. In addition, collection of high-quality seismic data would also be used to identify potential future development areas on CPAI held leases in the NPR-A. The seismic survey would be conducted and operated in a manner similar to previous seismic survey programs in the NPR-A.

The 2024 Ptarmigan seismic survey area would cover approximately 272,044 acres on BLM managed lands within the NPR-A. The operations staging pad and approximately 3.8 miles of a snow road to access and support the seismic operations would be located on BLM managed lands. Roughly 2 miles of the access snow road would be located on Kuukpik Native Corporation lands. BLM does not authorize use of non-federal lands.

All subsistence cabins would be avoided by at least one mile and no activity would occur within 500 feet of cultural sites or sites identified in the North Slope Borough Traditional Land Use Inventory.

Construction of the ice pad could begin in mid to late November. Scouting of the proposed seismic project area would begin in December 2023. The seismic survey would begin once the area is sufficiently frozen to protect the tundra and for safe operations, roughly January 2023, and continue through early May 2023.



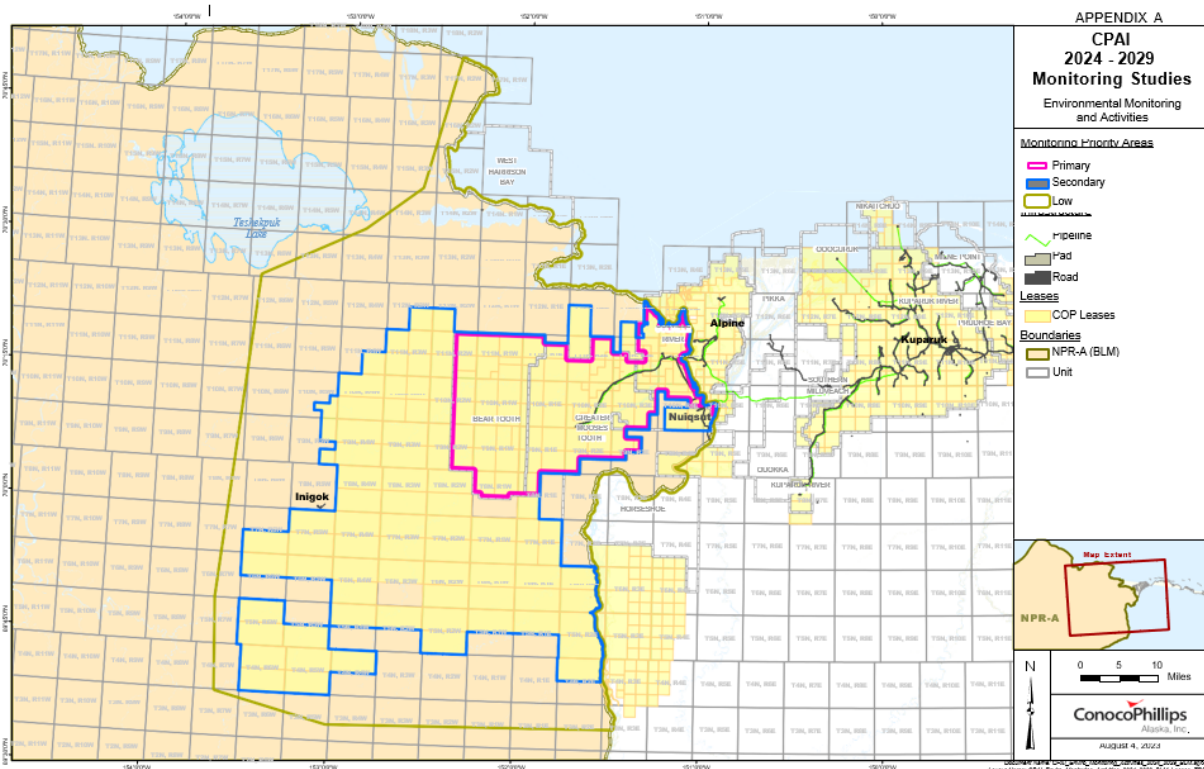
Location of Proposed Ptarmigan Seismic Survey Program area

### Environmental Studies and Monitoring

ConocoPhillips Alaska Inc. Has requested to renew their existing BLM Right-of-Way FF97411 to conduct activities in support of environmental protection and monitoring in the NPR-A. Activities will support exploration, predevelopment, development and maintenance operations. The activities will also support the advancement of Arctic science and facilitate collaboration with scientific partners and stakeholders.

The project area is in the northeastern NPR-A.





### Location of ConocoPhillips Monitoring Studies 2024-2029

Temporary structures to support studies include but are not limited to thermistors, temporary cameras, ground control points, weather stations, air quality monitoring stations, stream staff gages, nets, and acoustic monitoring devices. Activities associated with this proposed action would include:

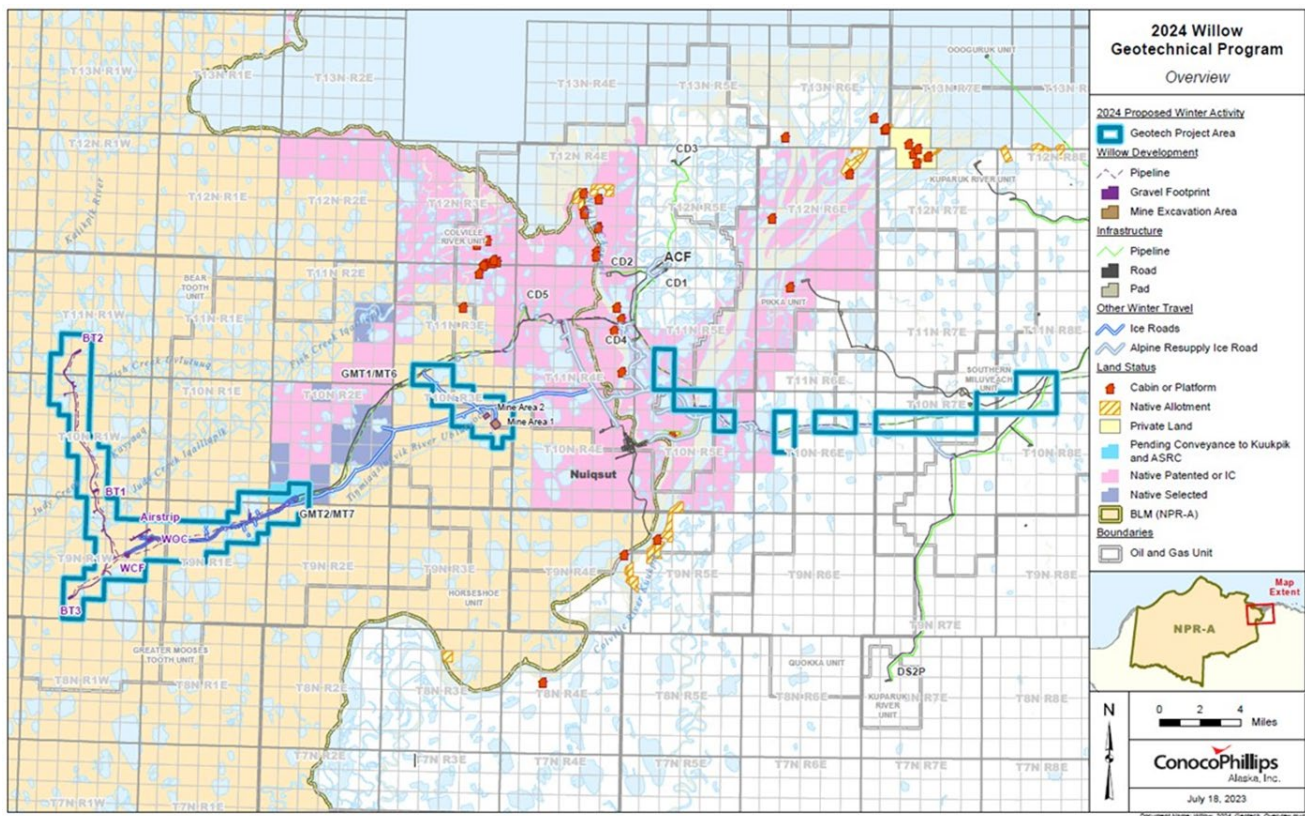
- Air Quality Monitoring
- Meteorology
- Hydrology
- Water Quality Monitoring
- Cultural Resource Surveys
- Vegetation Surveys
- Contaminant Sampling
- Soil Sampling
- Fish Sampling and Surveys
- Bird Surveys and Monitoring
- Acoustic Monitoring
- Caribou Monitoring
- Maternal Polar Bear Den Surveys

- Stick Picking/Tundra Clean-up Activities

## Geotechnical Surveys

ConocoPhillips Alaska, Inc. (CPAI) has requested to renew Right-of-Way (ROW) FF097571 to conduct geotechnical field surveys, install thermistors and survey monuments, and conduct ground penetrating radar surveys in the Willow Oil and Gas Development area. These activities are necessary to collect engineering and environmental information required to design and construct future (authorized) gravel roads and pads, bridges, airstrip, operations center, and pipelines for the Willow Oil and Gas Development.

The Final Willow Master Development Plan Supplemental Environmental Impact Statement (SEIS) was completed in January 2023 (USDOI BLM 2023a) and the Record of Decision signed in March 2023 (USDOI BLM 2023b). The Willow Oil and Gas Development is planned to include three drill sites with up to 66 wells at each drill site/gravel pad, an operations center, airstrip, pipelines, gravel mine, 26 miles of gravel roads that extend from the Greater Mooses Tooth 2 development to the three well sites, and ice roads Construction of the Willow Oil and Gas Development began in the winter 2023 with the development of the mine site.



Location of the 2024 Willow Geotechnical Program

## **BLM Hydrological Monitoring – Ikpikpuk River Gage Repaired**

Beginning in the early 2000s, BLM established a network of aquatic monitoring sites that have continued to expand in conjunction with proposed oil and gas (O&G) development. The workload associated with maintaining this comprehensive network is possible due to a long-standing collaboration with the University of Alaska Fairbanks (UAF) Water and Environmental Research Center (WERC).

During routine hydrological site visits in 2023, the Arctic District Office hydrologist Mary Szatkowski, in collaboration with UAF hydrologist Chris Arp, noticed that the pressure transducers (i.e., water level sensors) at the Ikpikpuk River gage were not functioning properly. Around this same time, community members in Utqiagvik reached out to the BLM Arctic District Office to inquire about the status of the Ikpikpuk River gage. This gage site was established in 2002, and community members have been using this gage not only to inform local travel but also as a flood watch for the subsistence camps and cabins located along the Ikpikpuk River. Once the gage spikes at 32 to 35 feet in the spring, users know to warn people camping that breakup is imminent. Community members let the BLM know that this gage was a big safety net for families on the river and is a great resource from a logistics standpoint for anyone using the river for subsistence or even from a rescue or wildlife department use.



Making final repairs to the Ikpikpuk gage instrumentation

It was observed during June fieldwork that the slope directly below the station where the cables run down had started slumping and eroding since the last visit in 2022, which likely caused the sensors to stop functioning. BLM and UAF personnel were able to visit the Ikpikpuk River gage on June 29 and replaced the pressure transducers and cables. However, due to high water, the sensors were not able to be situated in an ideal part of the channel. On August 29, BLM and UAF personnel conducted a final site visit for the 2023 field season and were able to resituate the sensors in the channel and determined their position relative to an elevation benchmark to display the correct river stage (i.e., water level). Due to high waters, the sensors were still not able to be placed in the best manner and may come out of the water during lower flow conditions; this can hopefully be remedied in future site visits. The water temperature reading was also corrected, and a malfunctioning wind sensor was replaced.

Real time data for the Ikpikpuk River (and other gages operated by BLM/UAF) are available at the Fish Creek Watershed Observatory (FCWO) website: <https://ine.uaf.edu/werc/projects/npra-hydrology/ikpikpuk.aspx>

## **BLM Hydrological Monitoring – Miguakiak River Gage**

BLM, in collaboration with the UAF WERC, established a hydrological monitoring site on the Miguakiak River in 2021. BLM is interested in monitoring the Miguakiak River because it is the largest outflow from Teshekpuk Lake and has tendency to reverse direction.

To limit intrusion on local subsistence camps, the minimal instrumentation was installed to capture hydrologic data but be of little notice on the landscape. Currently, there is a pressure transducer (PT) on the west bank of the river. The PT reports water temperature and depth. BLM and UAF personnel visit the site periodically throughout the thawed season to download the data from the PT and collect river discharge measurements. BLM and UAF personnel travel to the site via helicopter, but do not land and move on to alternate locations for the day's work if people are seen nearby.

BLM is interested in installing further river gage and meteorologic sensor instrumentation at this location. This would allow for the collected data to be streamed directly to Fish Creek Watershed Observatory website. Once online, the data is accessible to the public. It could potentially be useful or interesting for those who partake in subsistence or recreation activities in the vicinity. After the initial installation, the presence of the river gage would not require BLM and UAF personnel to visit the site any more than they currently do.

Ideally, the desired river gage instrumentations would be installed in the summer of 2025, however this is pending further conversations with the local community, approvals, and funding and gear acquisition.



BLM Hydrologic monitoring site on the Miguakiak River, with subsistence camps visible from the instrumentation.

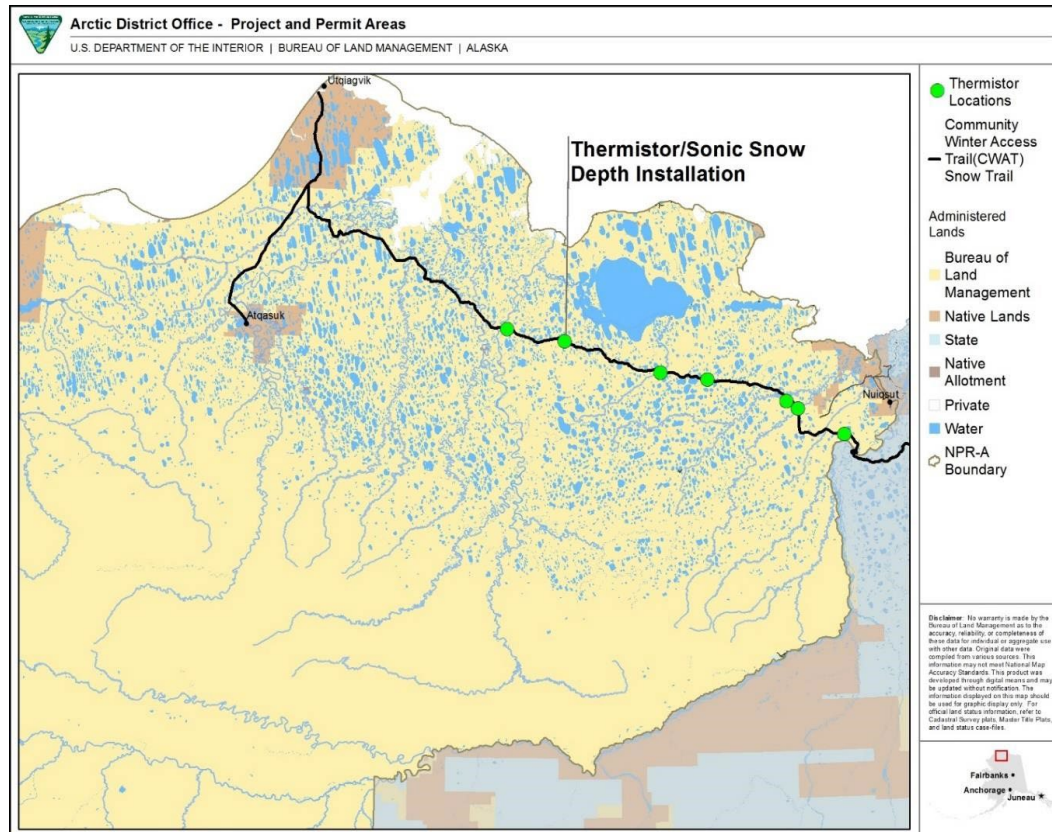


Chris Arp, hydrologist with UAF, measuring discharge on the Miguakiak River during breakup, 2023.

## **BLM Soil Temperature and Sonic Snow Depth Sensor Installation and Monitoring**

In late September 2019 the BLM Arctic District Office installed soil temperature sensors and sonic snow depth sensors at eight locations along the North Slope Borough's Community Winter Access Trail (CWAT) corridor to better assist in the monitoring of soil temperatures and snow depths. Thermistors were installed within approximately 30-150 meters (m) of the expected winter 2019-2020 CWAT location, as site conditions allowed. During August of 2022 BLM RDO installed an additional four soil temperature sensor cables and sonic snow depth sensors along the "newly permitted" segments of the CWAT ROW running from Barrow down to Atqasuk and over to Wainwright. Including the four stations installed in 2022, BLM now has a total of 14 soil and snow stations installed within the NPR-A. Up to four additional installations are planned for summer of 2024.

The crew drilled in frozen soil with a flighted auger and collected all frozen soil shavings excavated from the holes. Crew members installed digital temperature sensing cable down the holes and connected them to a transmitting data logging unit, Sonic Depth Sounders (SDS), and mounting hardware above grade with markers to make the sites more visible. The mounting poles are 1.5-3.0 m above surface elevation. The crew used the mineral soil shavings collected from excavation to slurry, backfill, and refreeze the sensors and dug a shallow narrow trench from the thermistor installation site to the data logger. Trenched cables were encased in a polymer conduit for added protection from wildlife. Crew members surveyed each site with GPS, marking a snow course for ground truthing snow-depth measurements during subsequent winter field studies. Three markers at each site (spaced in an L-shaped pattern) consist of s-takes with a mounting bracket sunken 15 to 30 cm deep and connected to a flexible, reflective breakaway pole designed to be resilient if hit or run over by snow machine drivers or equipment operators.



BLM Arctic staff expects to continue monitoring efforts indefinitely. Arctic Office staff anticipate that equipment and loggers will function with little to no maintenance required for extended periods, but summer monitoring procedures allow for annual site visits to upload additional logger points and repair non-functioning equipment as needed. Site visits (at least one per year) would involve one helicopter landing and take-off with no additional ground disturbance. BLM provides a publicly available Weekly Tundra Travel Report on its website at: <https://www.blm.gov/programs/energy-and-minerals/oil-and-gas/about/alaska/NPR-A/NPR-A-weekly-weather-and-tundra-travel-report>

This weekly report provides recent data collected on soil temperature and snow depth to advise industry, permit applicants, and the public on tundra access and timing.

Winter monitoring efforts will focus on snow depth data collection at up to eight sites, with one to three visits annually to each site by helicopter or snow-machine as conditions allow. Winter monitoring will consist of taking 50 snow depth measurements and five density measurements per site. Surface disturbance will be limited to the walking trail and a few small, freshly cut faces in the snow profile to collect density measurements. Each snow survey effort would have a total of eight landings and take-offs for a maximum of 24 landings and take-offs.



If it is determined that monitoring should cease, then the above-ground portion of the installation (conduits, buried cables, and snow course markers) can be removed with minimal disturbance to surface vegetation and negligible soil thermal regime effects.

During December of 2021 BLM conducted snow road prepacking monitoring and snow sampling along the CWAT trail. Snow density and hardness were characterized at points along the route both before and after the prepacking and post-packing freeze-up. This field work allows BLM to better understand industry methodologies as well as evaluate the effectiveness of Required Operating Procedures (ROPs) and Stipulations for permitted activities in the NPR-A.

## **North Slope Borough Community Winter Access Trails Right-of-Way**

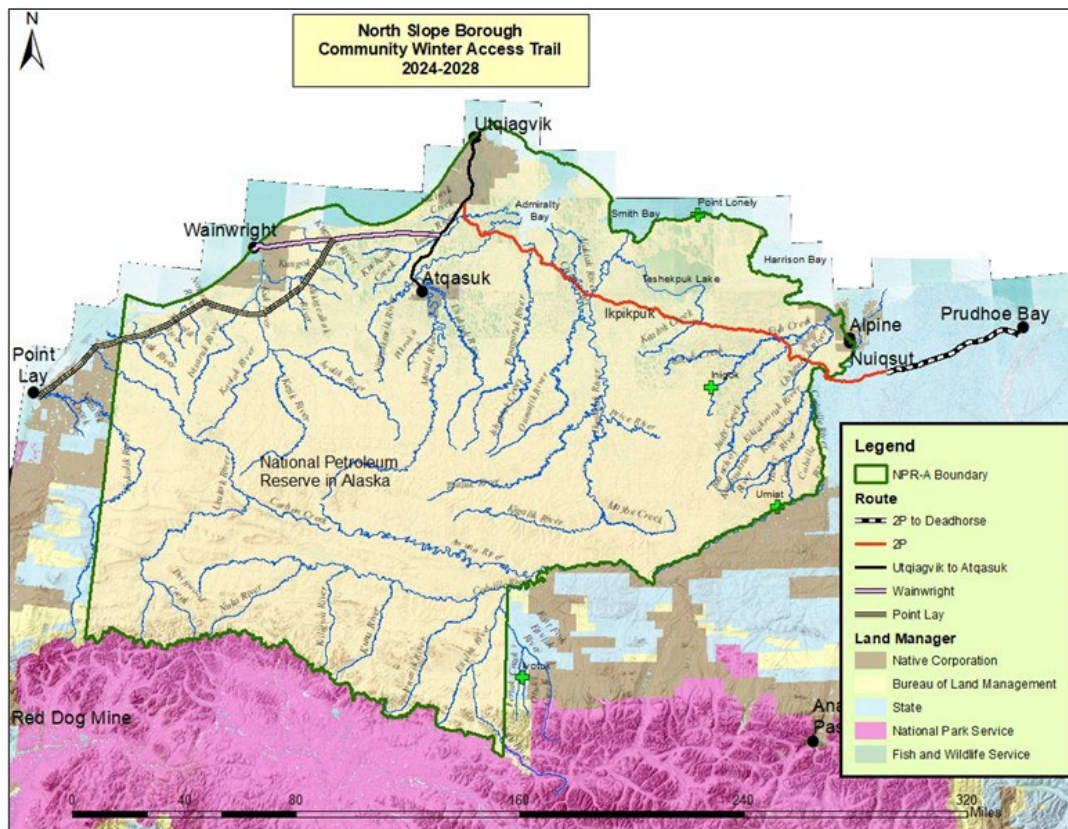
The BLM Arctic District Office permitted the North Slope Borough (NSB) Community Winter Access Trails (CWAT) in fall 2017 with a 5-year Right-of-Way. The CWAT involves annual winter construction of improved snow trails for use by residents along historically established Rolligon trails between Utqiagvik, Atqasuk, Wainwright, Point Lay, and Drill Site 2P (on the east side of the Colville River). This project focuses on maintaining existing trails and managing public safety. The five-year permit authorizes the CWAT from winter 2017-18 through winter 2022-23.

In winter 2019 the Arctic District amended the Right-of-Way (ROW) for the CWAT to include a route between Wainwright and Atqasuk. The ROW was also amended to authorize the installation of two safety shacks along the CWAT route, which would provide heat, shelter, and basic facilities for CWAT travelers.

In winter 2021, the Arctic District Office amended the current ROW to add two new snow trails including a new route from Wainwright to the Village of Point Lay and a route to Wainwright that would use a more traditional trail from Utqiagvik. The request would also add three safety shelters on these snow trails.

BLM staff are in communication with the NSB for their pending application to renew Right-of-Way FF097367 for 5 years (2024-2028) to construct, use, and maintain the CWAT to the communities of Utqiagvik, Atqasuk, Wainwright, Point Lay, and potentially Point Hope for local residents to transport housing materials, equipment, appliances, vehicles, fuel, and other goods. In addition, the NSB is also potentially requesting up to five seasonal (winter) safety shelters along these routes for

warming, rest, and emergencies. The snow trails would cross lands managed by the BLM Arctic District and the State of Alaska, as well as native lands around the villages of Utqiagvik, Atqasuk, Wainwright, Point Lay, and potentially Point Hope. The map below displays the routes without Point Hope included; should the application include that community, information about that route will be available once the application is submitted.



Proposed Community Winter Access Trails (snow trails) to the communities of Utqiagvik, Atqasuk, Wainwright, and Point Lay.

## Quintillion Fiber Optic Line Project

Quintillion's fiber optic broadband service to the northern Alaska communities of Kotzebue, Nome, Point Hope, Wainwright, and Utqiagvik was interrupted in early June 2023 when a submerged fiber optic cable in the Beaufort Sea approximately 34 miles north of Prudhoe Bay and located at a depth of 80-100 feet was suddenly and unexpectedly severed by grounded sea ice. Interruption of the essential telecommunication service impacted Northern Alaska community's communication, emergency services, medical services, public safety, business, education, services, and administration of local governments.

Despite the underwater fiber optic cable being repaired, as a future backup line Quintillion is proposing to lay 200 miles of fiber optic cable overland across the National Petroleum Reserve in Alaska (NPR-A) from the ConocoPhillips Greater Mooses Tooth 2 (GMT2) facility to Utqiagvik. The fiber optic cable that serves the Greater Mooses Tooth facility is connected by a cable that runs overland from Prudhoe Bay along the Dalton Highway to Fairbanks. The majority of this proposed fiber optic cable will be located adjacent to the North slope Borough Community Winter Access Trail (CWAT).

Approximately 182 miles of this cable would be located on lands managed by the Bureau of Land Management (BLM) Arctic District with 18 miles located on native lands outside of Utqiagvik. The cable would be laid over the tundra as well as sunk in wetlands, lakes, and smaller stream crossings. Other than installing supports where the cable would need to be aerially strung over larger rivers, there would be no ground disturbance.

The proposal and final application are still being updated and will be processed once a complete application is received.

## **Kuukpik Row and Gravel Sale**

Kuukpik Corporation (Kuukpik) is proposing to construct a new gravel pad on Kuukpik owned land approximately 15 miles west of Nuiqsut. This project is being called K2 Pad and is located on land conveyed to Kuukpik Corporation pursuant to the Alaska Native Claims Settlement Act (ANCSA) in T10N R2E Section 32, Patent Number 50-2023-0046. It will include a new 32.65-acre gravel pad with two access drives located on the southeast and southwest corner of the pad, respectively. The access drives will connect the K2 Pad to the north side of ConocoPhillips Alaska, Inc. (CPAI) Greater Mooses Tooth 2/Mooses Tooth 7 (GMT2/MT7) Access Road.

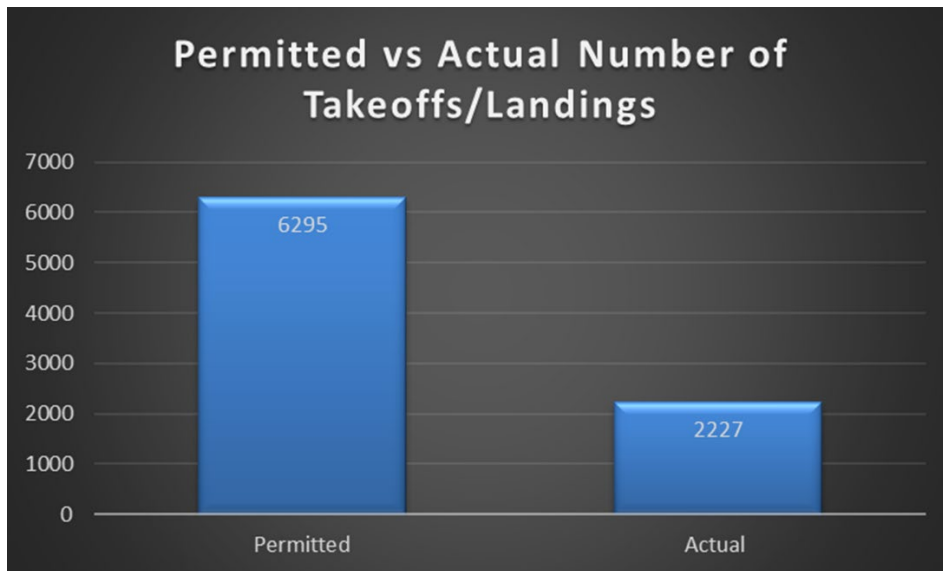
The purpose of the K2 gravel pad project is to provide a Kuukpik-owned lay down and staging area on Kuukpik land that generates revenue for, and reduces impacts to, Kuukpik shareholders and Nuiqsut residents. The pad will be leased to one or more oil and gas operators, oil field support companies and contractors, and/or Kuukpik-affiliated companies and joint ventures to reduce impacts of traffic and construction within and around the City of Nuiqsut, generate revenue for the benefit of Kuukpik's shareholders and offset impacts of oil and gas development to the community Nuiqsut.

The proposal and final application are still being updated and will be processed once a complete application is received.

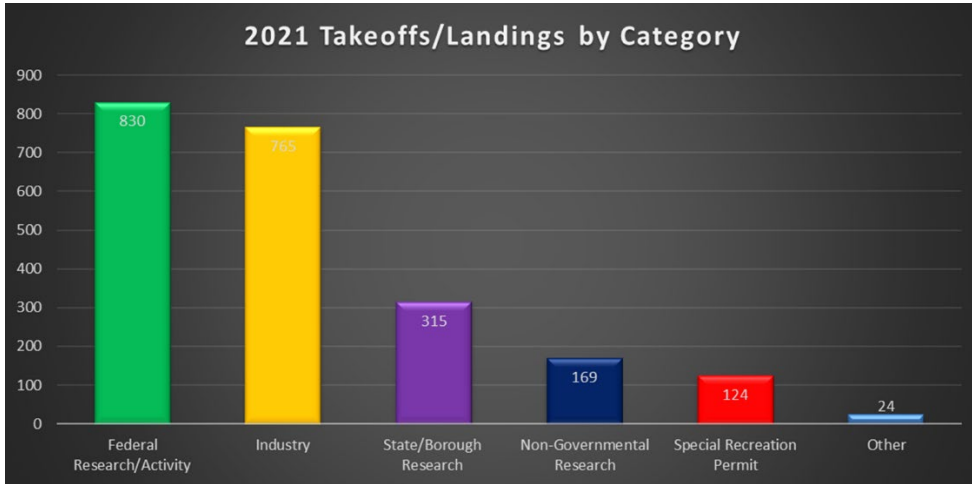
## BLM Studies and Research Programmatic Environmental Assessment

The BLM is in the early stages of developing an Environmental Assessment (EA) that will describe and analyze the impacts of numerous studies, research, monitoring and inspections conducted annually in the National Petroleum Reserve in Alaska. The EA will include caribou monitoring and collaring and surveys for grizzly bear, numerous different bird species, soils, vegetation, cultural resources, paleontological resources, wolverine, fish, and hydrologic surveys. The EA will also consider annual BLM inspections and monitoring including those for legacy wells, oil and gas activities, permit inspections, and special recreation permits. Aircraft use will be the major issue associated with these activities.

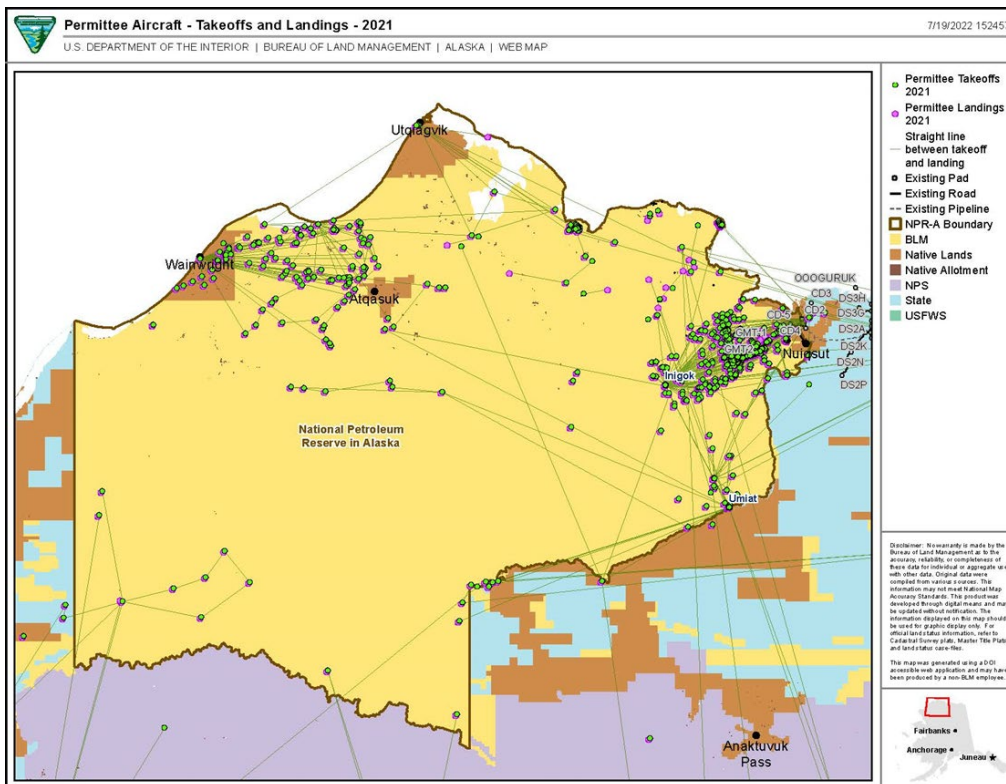
For aviation, we have already begun to analyze previous data in order to be able to compare it over the course of several years. The initial analysis involved data from summer 2021 and compared the number of takeoffs and landings across different categories, the number of permitted flights vs. the actual number of flights during the aviation season, and spatial data. Information presented to the NPR-A Working Group is shown below. We plan to include analysis of past years in order to have a better understanding of potential trends over time and to potentially find mitigation measures for aircraft use that has the potential to disturb subsistence users on the landscape. Additionally, the new requirement for permittees to provide the BLM with the tracks of their flights will allow for a better understanding of the use of airspace in the NPR-A going forward.



2021 Permitted vs. Actual Takeoffs/Landings

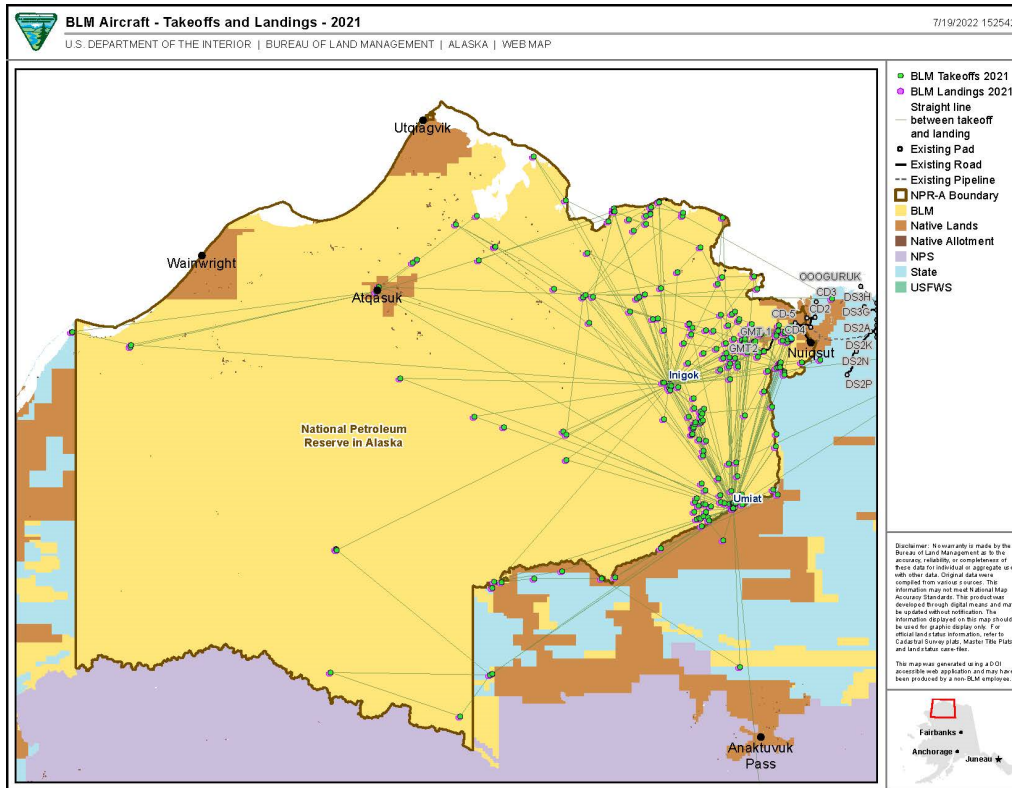


## 2021 Aviation by User Category



## 2021 Permittee Spatial Flight Data

A map depicting flight routes by permittees in the NPR-A in 2021.



### 2021 BLM Spatial Flight Data

Work on the BLM Programmatic Environmental Assessment is ongoing, with a tentative date of completion in early 2024.

## ADF&G Nuiqsut Subsistence Fisheries Study

The village of Nuiqsut in the northeast NPR-A is largely surrounded by oil and gas exploration and development, including several activities on BLM-managed lands in the region. The primary subsistence fishery in Nuiqsut is the fall under-ice harvest of Arctic cisco, which is very well tracked and has been monitored for about the last 30 years through funding from ConocoPhillips Alaska. However, there is much more sparse and scattered information on the harvest extent and areas of use and timing for other fish species. For example, fisheries getting less attention include burbot in the spring and broad whitefish during the summer and fall. The last known work in Nuiqsut regarding non-Arctic cisco fish harvest was 2006, and that was a very limited effort. Due to this developing data gap, the BLM solidified a financial assistance agreement in 2020 with the Alaska Department of Fish and Game Division (ADF&G) Division of Subsistence for specialists experienced in this field to conduct the work.

In this project, ADF&G subsistence researchers will document harvests of Arctic fishes in order to produce community estimates of annual harvest and document local knowledge about patterns of use, abundance and health of fish stocks, and social factors that have affected fishing practices over time. Additionally, they will collect data to conduct a social network analysis of the sharing and distribution of fish resources within Nuiqsut and between Nuiqsut households and other communities. These details are important as impact assessment efforts, particularly in the development of project alternatives and mitigative measures, need to consider the ecological and social importance of subsistence fisheries.

The Nuiqsut subsistence fishery project is currently in its final year. Survey administration and key respondent interview fieldwork occurred in 2022 and 2023. In 2022, ADF&G staff surveyed 63 of 119 eligible households in the community (53% sample) and interviewed 7 fishers. Researchers conducted additional fieldwork in July 2022 for participant observation of the summer broad whitefish fishery. Unfortunately, river conditions were such that Nuiqsut fishers were not setting nets (high water levels had brought debris downstream), but ADF&G staff were able to participate in rod-and-reel fishing for grayling with several local anglers along key stretches of the Colville River and were able to conduct an additional key respondent interview. In January 2023, ADF&G staff surveyed 58 of 112 eligible households (52% sample) and interviewed 5 additional anglers.

Data from household harvest surveys and key respondent interviews are currently being analyzed and investigators began drafting sections of the technical report, with a draft final technical report expected to be presented to the community for review and approval during fall 2023.

## **ADF&G Wainwright Comprehensive Subsistence Harvest Survey**

The NPR-A consists of 23 million acres of BLM-managed lands in the Arctic and is home to four primarily Iñupiaq communities who rely upon wild foods to sustain their communities and subsistence way of life. Documentation of subsistence practices within resident communities is important in order to inform many land-use evaluations, best management practices, and permitting decisions. Additionally, comparison of subsistence harvest and use information over time can help to track changes to community harvests caused by a changing climate, changes in resource availability, and development activities.

The ADF&G Division of Subsistence is planning to conduct a comprehensive subsistence harvest survey in the community of Wainwright. This study will document subsistence harvest and use practices in the community of Wainwright for all wild resources in a 12-month period with a focus on total harvest quantities, harvest composition, and household participation in subsistence activities, and spatial land use data. Additionally, the collection of ethnographic information to contextualize quantitative harvest information would be helpful for a comparison with past datasets. The BLM is

seeking to collaborate with ADF&G on this project in order to allow for a documentation of the complete subsistence harvest of all wild resources in Wainwright for one calendar year. Updated subsistence harvest and use information will make land-use planning and permitting more accurate and will inform these decisions. It will also fill an identified data gap and could help to guide future subsistence documentation work in the NPR-A.

The Division of Subsistence has reached out to Native Village of Wainwright in order to seek formal approval for the research, which was received. Fieldwork is tentatively planned for early 2024.

## **Monitoring Polycyclic Aromatic Hydrocarbons (PAHs) in Sediments of the Colville River and Subsistence Fishes Important to the Community of Nuiqsut**

The village of Nuiqsut in the northeast National Petroleum Reserve in Alaska (NPR-A) is largely surrounded by oil and gas (O&G) exploration and development, including a number of activities on BLM-managed lands in the region. Community members of Nuiqsut have expressed concerns regarding Polycyclic Aromatic Hydrocarbons (PAHs), a group of organic contaminants ubiquitous in the environment. Within the NPR-A, a previous study to assess baseline concentrations of PAHs was conducted over the course of seven years, with distinct collection events in 2004, 2005, 2008, and 2010. The results of this study indicated concentrations of PAHs fish were low, often below detection limits. However, these sampling efforts primarily occurred prior to the development of permanent O&G facilities within the NPR-A, as construction of the first permanent O&G drill site began in 2013, with first oil produced in 2015. Two additional gravel drill sites were subsequently permitted and began producing oil in 2018 and 2021, respectively.

Some community members feel that PAH contamination may be associated with whitefishes infected with *Saprolegnia*, a water mold that can result in a fish disease called Saprolegniosis. This water mold was first found on broad whitefish (Aanaakliq) by Nuiqsut fishermen during the fall of 2013. The occurrence of this mold has since been observed on additional whitefish species, including humpback whitefish (Pikuktuuq), Arctic cisco (Qaaktaq), and least cisco (Iqalusaaq). While Saprolegniosis tends to be associated with fish that have physical wounds on their skin or are under stress, some causes of wounding and stress can be pollution, crowding, changes in environment (water temperature, salinity, water flow), and production (especially spawning males).

With the increase in O&G activity near areas that serve as important aquatic habitats, a follow-up monitoring effort to evaluate PAH levels in fish tissues and sediments is being conducted to ensure



that the Village of Nuiqsut, the North Slope Borough, and BLM are effective at protecting these sensitive aquatic ecosystems and comply with BLM's Required Operating Procedures (ROPs). The overarching goal of this project is to conduct a monitoring effort to evaluate potential changes in PAH concentrations in sediments and fish tissues within areas of the NPR-A and to assess whether elevated PAH levels are associated with fish infected with *Saprolegnia*. The BLM Arctic District Office, in collaboration with the North Slope Borough (NSB) Department of Wildlife Management (DWM), secured an agreement with contaminants specialists at the Mote Marine Laboratory to conduct analyses of PAH levels in fish tissues and sediments of the Colville River delta. As part of the agreement, a written report summarizing the study results would be provided as well as a presentation of the results to community members of Nuiqsut and Utqiagvik.

This multi-year project began in October of 2022, during which one broad whitefish (Aanaakliq) infected with mold and 11 healthy least cisco (Iqalusaaq) were collected during the under-ice fishery and sent to the Mote Marine Laboratory for analyses. In addition, sediment samples were collected at 18 locations along the Colville and Fish Creek watersheds that were originally sampled in the baseline study to assess trends in PAH levels over time. The sediment samples have been sent to the Mote Marine Laboratory and are currently undergoing analysis. Additional fish sampling events are planned for fall of 2023. Nuiqsut community members interested in assisting with sampling or have any questions about the project can contact BLM Fish Biologist Katie Drew at (907) 474-2315 or [ksdrew@blm.gov](mailto:ksdrew@blm.gov).

## **Monitoring Water Quality and Chemistry within the NPR-A**

The Greater Mooses Tooth Oil and Gas Development is located on lands managed by the BLM in the NPR-A and is part of the larger Alpine Satellite Development Plan. The Greater Mooses Tooth (GMT) development was first approved in 2004 through the Alpine Satellite Development. Subsequent approvals occurred in 2015 (GMT1) and 2018 (GMT2) to address and evaluate new circumstances and information that had arisen since completion of the Alpine Satellite Development Plan. The BLM Arctic District Office has requirements for coordinating research and monitoring projects related to the effectiveness of stipulations and surface resource impacts in the NPR-A. As oil and gas development continues to expand westward, monitoring is increasingly important to ensure current Required Operating Procedures (ROPs) are effective at mitigating potential impacts.

To establish a benchmark from which to monitor potential changes to water quality and chemistry, the BLM collaborated with the USGS Alaska Science Center in 2010 to collect and analyze water

quality and chemistry (including volatile organic compounds (VOCs)) at four sites in the GMT unit prior to drill pad construction and eventual oil production. The goal was to complete a post-development sampling event within 10 years to document condition and trends of water quality and chemistry at these sites, thereby allowing the BLM to evaluate the effectiveness of ROPs at minimizing potential impacts to water quality.



USGS and BLM personnel processing a water sample collected at Oil Creek, within the GMT unit.

Fieldwork for this project was completed in June 2023. Water samples were collected at 4 sites within the GMT unit. In addition, baseline water quality samples were collected at 4 sites within the Bears Tooth Unit to provide a benchmark from which to monitor trends in water quality and chemistry post-development of the Willow Master Development Project at a future date. Water samples were submitted and are currently being analyzed at the National Water Quality Laboratory in Colorado. Water quality results will be uploaded to the USGS National Water Information System (NWIS) web interface (a public repository) within one year of collection. In addition, results and qualitative interpretation of GMT water quality pre- and post-development will be published in a Scientific Investigations Report (SIR) by September 2024.

## **Caribou in the NPR-A**

The North Slope is home to four barren ground caribou herds, three of which use habitat within the NPR-A. The Western Arctic herd (WAH), which numbers an estimated 164,000 animals as of 2022, primarily utilizes lands in the northwest corner of Alaska, from the Seward Peninsula across the western and central Brooks Range to Utqiagvik. The Teshekpuk caribou herd (TCH), numbering 61,500 animals as of 2022, has its range in the central Arctic Coastal Plain, with most animals in the herd remaining in this area year-round. The Central Arctic herd (CAH), numbering 28,000 animals in 2017, is found centered around the Sagavanirktok River between the Colville River in the west and Canning River in the east. The Porcupine caribou herd (PCH), which numbers 218,000 animals as of 2017, has a range that includes the northeastern corner of Alaska east of the Canning River and stretches into Canada's Yukon Territory.

In 2018, BLM entered into a cooperative agreement with USGS to study the effects of road traffic volume and timing within the Kuparuk oilfield on CAH caribou movements. Findings indicate that during summer seasons caribou select for areas further from roads as well as for areas with lower traffic volume and were less likely to cross roads as traffic volume increased. However, as with previous research, this study also indicates that as mosquito harassment increases, caribou will avoid roads less. These findings have management implications and will help to inform mitigation strategies for future potential development in the region. Results of this study were accepted in September 2023 for publication in the journal, *Ecological Applications*.

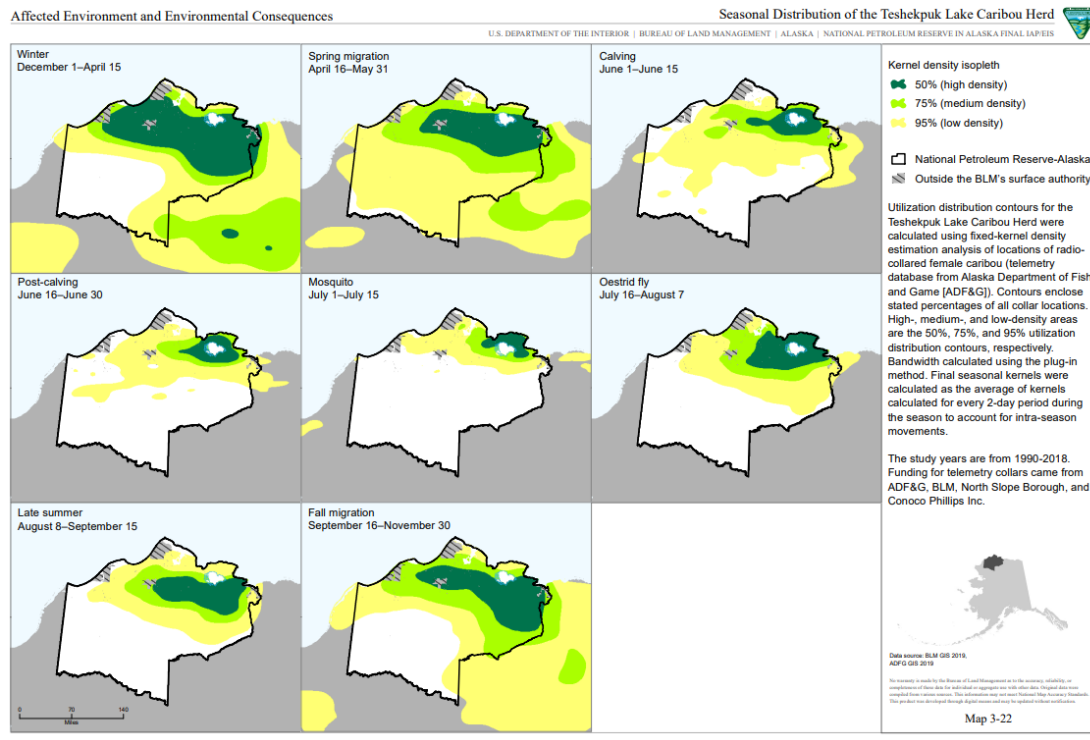
New population updates are available for two of the herds that utilize the NPR-A. The most recent photocensus for the Western Arctic Herd counted 164,000 animals, a decline of 24,000 from the 2021 count. One of the factors that seem to be driving the decline is low adult cow survival. The Western Arctic Caribou Herd Working Group voted in favor of submitting a proposal to both the state Board of Game and the Federal Subsistence Board to limit annual harvest to 4 animals per hunter, only one of which could be a cow. However, the Office of Subsistence Management opposed the proposal based on limited public input opportunities and an insufficient regulatory timeframe for implementation of the proposed restrictions. Additional proposals aiming to limit annual harvest of the Western Arctic Caribou may be expected to emerge in the coming year. In contrast, the 2022 Teshekpuk Herd photocensus counted 61,500 animals, an increase from 55,000 in 2017. The population is thought to be stable.

## **Caribou Habitat in the Vicinity of Oil and Gas Development**

The Fish Creek watershed is widely acknowledged as an area important for both subsistence use and caribou habitat. This area is also the focus of potential near term oil and gas development, and as

such is of great interest to the public as well. Prior to development, it would be helpful to conduct a baseline assessment of the vegetation in the area. This assessment would assist in monitoring potential impacts and mitigation effectiveness.

The habitat in this area is used by some caribou throughout the year, but especially during calving season and during both spring and fall migration (See annotated map 3-22 below. Approximated area for development is indicated by red marker). Calving habitat consists of early emergent high nutrient forage important for calf growth and development. Late summer forage quality can play an important role in winter survival for caribou, while migration route can affect timing of arrival on winter range.



It's unclear if the same forage types will be available in the same quantities if displacement occurs. This study will aim to address this uncertainty by looking at vegetation species composition at sites known to be utilized by caribou. Habitat assessment will include both species richness and abundance, and will also determine presence/absence of sensitive plants and invasive or non-native species. Sites will be identified using both telemetry locations (past and present) and hunter utilization data. Two weeks of field work occurred in late July to early August of 2023. Three 25-meter transects would be run at sites identified using a random sampling method. Focus will be on the calving period (telemetry) and fall migration (telemetry and hunter data). The data can later be compared to locations of caribou usage during the same time periods after development pending future research.

In order to aid in targeting the location for habitat assessment, documenting traditional ecological knowledge (TEK) of caribou in known subsistence use areas of Fish and Judy Creek will occur in the winter and spring prior to fieldwork in the community of Nuiqsut. Researchers will conduct key respondent interviews with active subsistence users in order to collect information regarding observed caribou utilization of the Fish Creek watershed over the course of the respondent's time hunting in the region; these interviews will include question regarding any observed changes in caribou abundance and distribution within the area and any associated changes in search and harvest areas. During these interviews, mapping of recent and historical search and harvest areas within the watershed will aid in identifying sites to sample for vegetation composition. Key respondents will be chosen in collaboration with local governments in the community and snowball sampling in which knowledgeable subsistence users identify other potential interview subjects. The first round of interview data collection occurred in April and May 2023 and 3 interviews were conducted. Further interview fieldwork will be coordinated with the Native Village of Nuiqsut.

At the end of the project, the results of data collection will be brought back to the community as a form of educational outreach.

## **Experimental Assessment of Helicopter-Induced Disturbance on Molting Black Brant in the Nation Petroleum Reserve-Alaska**

The Teshekpuk Lake Special Area (TLSA) within the NPR-A, supports tens of thousands of molting and breeding waterfowl, including four species of geese. The special area designation was assigned primarily for its value to fish and wildlife resources, and in part, for its importance as the primary molting grounds for the world's population of Pacific black brant (hereafter: brant). Failed nesting and non-breeding brant from throughout the species breeding range, including nesting areas in Alaska, Canada, and Russia, undergo a migration in June and July to wetlands within the TLSA to complete molt and re-grow their flight feathers, during which time they are rendered flightless for 3-4 weeks. The TLSA and adjacent coastal habitats represent the primary molting grounds for the species, supporting as many as 36,000 molting brant (approximately 30% of the total Pacific population) annually. Given the traditional and continued use by such a large component of the population, this area appears to be unique in providing the essential combination of resources required for brant to complete the flightless period.

Waterfowl are particularly sensitive to disturbance during the wing molt, a behavior attributed primarily to the reduced ability of flightless birds to avoid predators. As compared to other sources of disturbance, helicopters illicit a particularly strong response from molting geese, whereby disturbed birds run to the nearest shoreline, congregate in dense flocks, and swim in the safety of open-water until the perceived threat has dissipated, or in more extreme cases, they may be displaced over-land to

an alternative wetland. Thus, repeated helicopter disturbance to molting brant may alter their patterns of habitat use and spatial distribution, reduce foraging efficiency and increase nutritional stress, or impact survival directly through increased exposure to terrestrial predators.

This project would conduct an experimental study to quantify potential population-level impacts of helicopter disturbance on brant molting in and adjacent to the TLSA. Specifically, this study will use experimental helicopter overflights to quantify the effects of helicopter disturbance on the behavior, habitat use, and survival of molting and post-molt brant. Further, this study will evaluate the ability for molting geese to habituate to repeated helicopter disturbances and quantify across-year effects of disturbance on habitat selection and spatial distribution. The major components of the work are:

1. Conduct a pilot study to assess the effect of transmitter attachment methods on molting site fidelity and behavior of brant. Molting drives were conducted to capture flightless brant on lakes during early July 2020 and 2023 in the TLSA.
2. Conduct experimental helicopter disturbance of brant within the TLSA using lakes with similar habitat and good abundance. Helicopter disturbance treatments will be conducted regularly for the preselected lakes, allowing for direct comparison of goose behavior among treatment scenarios. Experiment was conducted during July 2023.
3. Measure the response to helicopter disturbance on molting brant within the TLSA using two primary approaches to quantifying potential effects of helicopter disturbance on molting geese, one using GPS transmitters for assessing within-year effects on home range size and movement rates, the other using a mark-recapture framework for assessing across-year effects on molting site fidelity and survival. Measurements are ongoing.

Expansion of petroleum exploration and development into currently undeveloped areas of the NPR-A will require the BLM to make decisions regarding permitted activities. Recent debates have centered around allowing roads. These decisions will need to be based on the trade-off between the overall effect of the road compared to the overall effect of required logistics in the absence of a road. In the absence of a road, substantial helicopter support is required, thus increasing the exposure of local wildlife to the number of helicopter overflights, landings, and takeoffs. It is clear that helicopter activity directly alters the behavior of molting geese, even at considerable distances, but the extent to which helicopter-induced disturbance may cause population-level effects is little studied and largely unknown, highlighting a key gap in knowledge for land managers tasked with minimizing impacts of oil and gas leasing on wildlife.



Group of brant in capture pen



Unique speckled headed Brant

## **Polar Bear Agreement**

In 2019, the Bureau of Land Management (BLM) and U.S. Fish and Wildlife Service (USFWS) entered into a –five-year intra-agency agreement under which BLM supports and collaborates on



polar bear research in the Chukchi Sea (CS) region located from the northwest coastal areas of Alaska west to Wrangel Island and the Chukotka coastal areas. This study provides information necessary to manage polar bears in compliance with the U.S. Endangered Species Act, the National Environmental Policy Act, the Marine Mammal Protection Act, a bilateral treaty on polar bears between the U.S. and Russia, and the 1973 Agreement on the Conservation of Polar Bears. The objectives of this project are to determine polar bear distribution, habitat use and population trend which will help BLM develop best practices to avoid adverse effects to polar bears prior to authorizing infrastructure development.

The objects for this five year project were:

Determine spring use areas of adult male, adult female, and subadults of both sexes of polar bears in the Chukchi Sea;

Use sea ice projections to estimate spatial and temporal patterns of land use over the coming decades in order to better understand potential population level effects and prepare for changes in human-polar bear interactions;

Determine how the distribution of denning habitat in the Chukchi Sea is likely to change given changing climate and sea ice conditions;

Continue mark recapture methods to understand how polar bears are responding to sea ice loss in the Chukchi Sea.

This project has been very successful with yearly progress reports submitted to BLM, per-reviewed manuscripts published and a final report of all objects is due in December 2023.

## **Archeological Survey in the Eastern NPR-A**

BLM archaeologist Joe Keeney has been conducting ongoing proactive archaeological survey work in the eastern NPR-A over the last several years. The goal of these helicopter-based survey is to 1) identify and record previously undocumented archaeological or paleontological sites in the area, and 2) revisit known sites in the area to monitor their condition and update locational information using high-precision GPS. The archaeology crew visually searches for landforms and settings where identification of cultural materials would be likely and/or possible and would land at those locations to inspect the areas on foot or (in some cases) by low-level overflights (note: the crew avoids low level overflights when animals—namely caribou—were present). In addition, the archaeology crews visit sites outside the main survey area to record and map those sites and/or monitor their conditions, especially those along the Beaufort Sea coast that are actively eroding at a high rate.

As most of the overall land area used for permits authorized by the BLM Arctic district Office relates to overland transportation, the archaeology crew focuses on surface sites, which are most susceptible to overland transportation. As buried sites are protected by the overlying sediments and vegetation and less likely to be disturbed by overland transportation, the archaeology crew limits the amount of subsurface testing (i.e., small-scale digging to identify the presence of buried materials) during these projects.

Keeney conducted the most recent surveys in the summer of 2023 over one week between August 16-19. Operating out of Umiat, Keeney focused most of the survey efforts in the eastern NPR-A and along the CWAT, aerially surveying roughly 50,775 acres in search of suitable areas for more intensive survey on-foot. The 2021 crew surveyed 27 acres on foot, which resulted in three newly documented sites and monitoring and updated mapping at two sites. Keeney plans to conduct another one to two weeks of similar survey in the eastern NPR-A in 2024.

## **Tukuto Lake Mapping in South-Central NPR-A**

BLM archaeologist Joe Keeney, along with two BLM seasonal archaeologists and assisted by a BLM Physical Scientist, conducted a project aimed at understanding the design and strategies associated with caribou drive line systems. Based out of Ivotuk in the southern NPR-A, the crew revisited several known sites in the southern NPR-A for the purpose of recording in greater detail the drive systems at the sites. The drive systems extended up to several miles, consisting of lines of stone cairns used to efficiently herd caribou into an area for hunting large numbers.

The 2023 work involved recording (photographing, notation, and detailed mapping with sub-meter GPS) the drivelines and other nearby features, and attempting to recover organic material (animal bone, wood, seeds, etc.) within the stone piles that could be used for radiocarbon dating when the drive systems were built. The 2023 crew did not conduct any digging. The 2023 crew successfully mapped Ten sites consisting of lines of cairns, hunting blinds, cache pits, and stone tool making debris. The data will be used by Haley McCaig, a graduate student at the University of Alaska Fairbanks, who is studying caribou drive systems for her thesis project; McCaig was unable to join the crew due to illness at the time. The archaeological team limited artifact collection to only organic materials recovered within the rocks; all materials are now housed at the University of Alaska Museum of the North. Keeney plans to continue mapping similar drivelines in the NPRA in 2024.

Keeney is also seeking to collaborate on this project with holders of traditional and historic knowledge from North Slope Borough communities. People interested in helping with this project can contact BLM archaeologist Joe Keeney at 907-474-2312 or [jkeeney@blm.gov](mailto:jkeeney@blm.gov).

## **Legacy Wells Program Update**

### **Background**

Between 1944 and 1982, the U.S. Navy and the U.S. Geological Survey drilled 136 wells on Alaska's North Slope to explore for oil and gas resources within what is now the National Petroleum Reserve in Alaska (NPR-A). In 1976, BLM was given responsibility for managing the NPR-A, and in 1982 BLM inherited the responsibility for the legacy wells. Many of the legacy wells were not properly plugged or abandoned, and surface debris or contaminated soil may have been left in place. The BLM prepared the NPR-A 2013 Legacy Wells Summary Report and the NPR-A 2020 Legacy Wells Strategic Plan to assess the condition of each well and prioritize remediation of the wells.

### **2023/2024 Winter Season**

The BLM has awarded a contract to complete plugging and abandonment at the Tulageak Legacy Well and conduct sampling at the West Dease and East Simpson 1 Legacy Wells. The contractor would mobilize to the wells via a winter snow trail and complete the plugging and abandonment activities at the Tulageak well. In addition, the contractor would conduct site characterization, soil sampling, and delineation of drilling wastes and contaminated soil at the West Dease and East Simpson 1 wells. Final surveys and cleanup would occur during the summer of 2024.

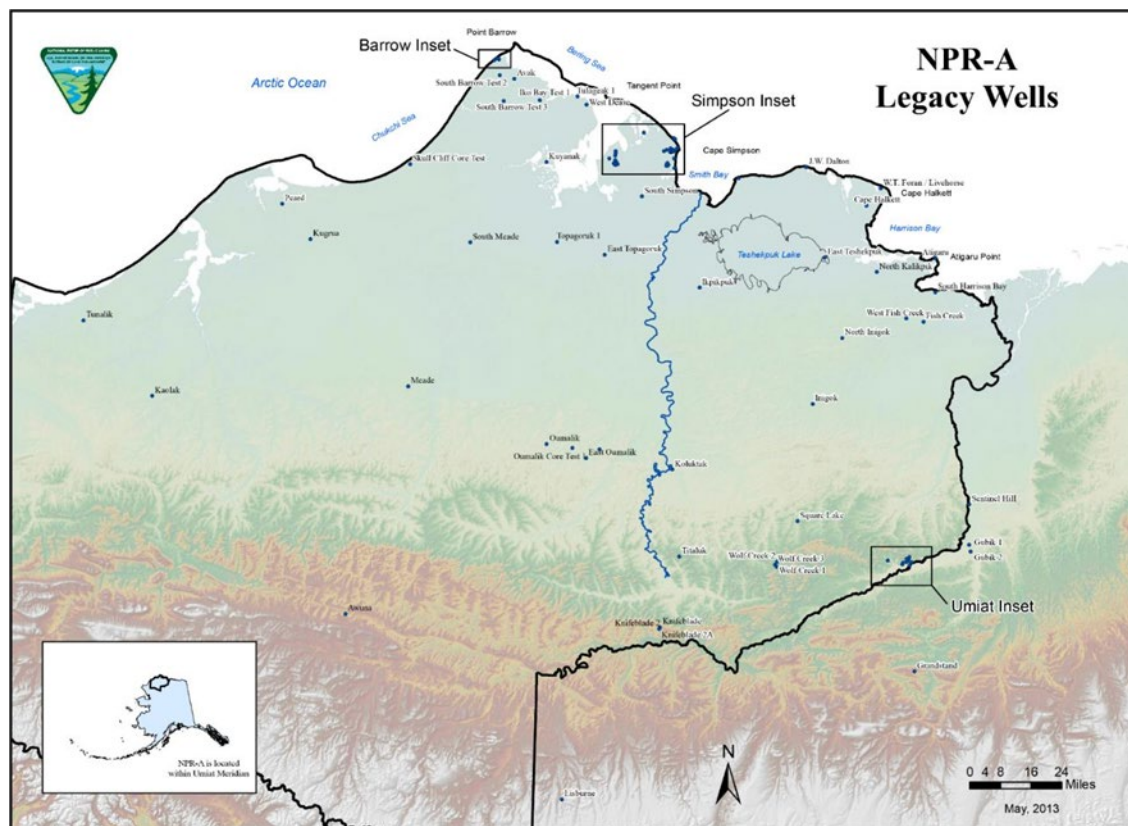
### **Legacy Wells Upcoming Work:**

The BLM contractor completed plugging and abandonment of the Omualik Test Well 1, Oumalik Core 2, Oumalik Core 11, Oumalik Core 12, and East Oumalik legacy wells over the 2021/2022 winter season. Contaminated soil encountered during the P&A activities remains on site, and additional work is needed to remove it. The BLM is currently working on a removal action plan.

The BLM completed the NPR-A 2020 Legacy Wells Strategic Plan and continues to work on updating the 2013 Legacy Wells Summary Report. The BLM has prepared a programmatic Environmental Assessment for planned P&A activities at the following legacy wells over the next 10 years:

- Cape Halkett
- East Topagoruk
- Fish Creek
- Koalak
- Knifeblade 1
- Knifeblade 2
- Knifeblade 2A

- Meade
- Skull Cliff
- Topagoruk



Location of Legacy Wells within the NPR-A

**More Information:**

More information on legacy wells can be found on the BLM Alaska website at:  
<https://www.blm.gov/programs/energy-and-minerals/oil-and-gas/alaska-legacy-wells>

Photos of the 2017/2018 winter plugging and abandonment activities are available on the BLM Alaska Flickr site:  
<https://www.flickr.com/photos/blmalaska/albums>

**Contact Information:**

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Allie Schoessler, Petroleum Engineering Technician: [aschoessler@blm.gov](mailto:aschoessler@blm.gov) or (907) 267-1244

## **NPR-A Working Group**

This group provides the forum for North Slope communities to provide meaningful, regular input to ongoing management decisions and proposed activities (e.g. oil and gas leasing) and developments (e.g. pipelines) in the National Petroleum Reserve in Alaska (NPR-A).

In response to comments and in consultation with local governments, Native corporations, and tribal entities, the group was established by the February 2013 NPR-A Integrated Activity Plan/Environmental Impact Statement (IAP/EIS).

The NPR-A Working Group consists of representatives from North Slope local governments, Native corporations, and tribal entities. BLM Alaska regularly attends meetings and oversees the contract for a facilitator, but BLM does not control or manage the group. Meetings were held from 2015 to July 2020. The group reformed in August 2021 after a hiatus and met until July 2022. After the contract with the original facilitator lapsed, the BLM posted an RFP for bidding and a new facilitator, Arctic Insights and Solutions, received the contract in July 2023. Meetings resumed on September 26, 2023 and will be conducted on a monthly basis.

The group informs BLM about community concerns on a range of issues associated with activities within the NPR-A, including: oil and gas leasing, land use conflicts, exploration, and infrastructure projects supporting onshore and offshore oil and gas development, such as production facilities and pipelines.

The NPR-A Working Group also serves as a forum to collect additional scientific information and traditional knowledge about wildlife populations and needs. The group's input can inform potential adjustments to the boundaries of special areas. Similarly, if wildlife migration patterns are altered by future development in the NPR-A, the working group can provide important feedback about areas where additional protection of surface values should be considered.

## **North Slope Science Initiative**

The overall goal of the North Slope Science Initiative is to ensure compliance with NSSI's legislative mandate (2005 Energy Policy Act, Sec 348(b) to "...maintain and improve public and agency access to accumulated and ongoing research..." that can be used "...to address the individual and cumulative effect is of past, on going and anticipated development activities. Through an assistance agreement from BLM to UAA we ensure the design and maintenance of NSSI public websites (<https://northslopescience.org>, <https://northslopescience.org/catalog>, and <https://northslopescience.org/nuiqsut>) that facilitate the discovery, distribution and archival of science-based data, developing new data and providing multi-agency decision support capacity. UAA also provides employment opportunities for UAA students that promote DOI/BLM science objectives.

## Federal Muskox Hunt Game Management Unit 26A

As a result of Federal Wildlife Proposal 22-55, the Bureau of Land Management Arctic District Office was authorized to issue federal draw permits for a muskox subsistence hunt on federally managed lands in the western portion of Game Management Unit 26A. BLM issued three musk ox subsistence permits for the 2023-2024 winter season. The federal hunt area includes that portion of Unit 26A west of the eastern shore of Admiralty Bay where the Alaktak River enters, following the Alaktak River to 155°00'W longitude, south to the GMU 26A border (Figure 1). The federal draw opportunity was only available to federally qualified subsistence users residing in the communities of Anaktuvuk Pass, Atqasuk, Utqiagvik, Nuiqsut, Point Hope, Point Lay, and Wainwright. The season for this year's federal hunt is August 1, 2023 to March 15, 2024, and is subject to closure at the discretion of the Arctic District Manager. To date, no musk ox harvest has been reported to the BLM, as per the permit requirements. For the 2024-2025 winter season, BLM plans to issue 3 more federal draw permits for a muskox subsistence hunt in conjunction with ADFG also offering musk ox subsistence hunt opportunities in Unit 26A.

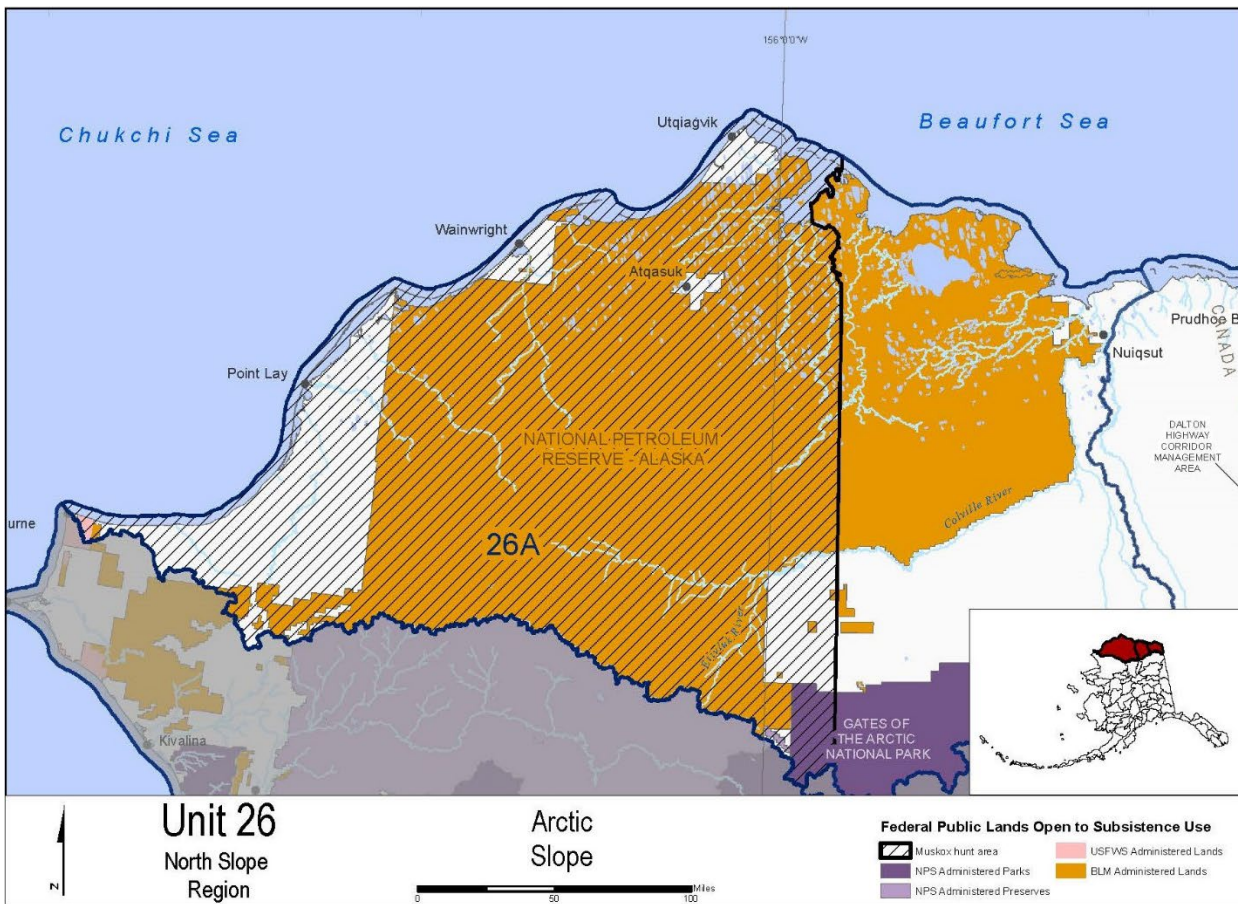


Figure 1: Hunt area for federal muskox subsistence hunt (cross hatched area).

Additionally, the State of Alaska has four state Tier II permits available for Unit 26A East of 153 W Longitude and Western 26B west of the Dalton Highway (TX108, Figure 2) and 3 state Tier II permits available for the west of the Topogoruk River following W156 longitude to the Unit 26A Southern Boundary (TX109, Figure 3). To harvest under the state hunts, subsistence users will need to apply for a Tier II permit. The application period for these permits (November 1- December 15, 2022) has closed for the coming season.



Figure 2. State TX108 Muskox Hunt

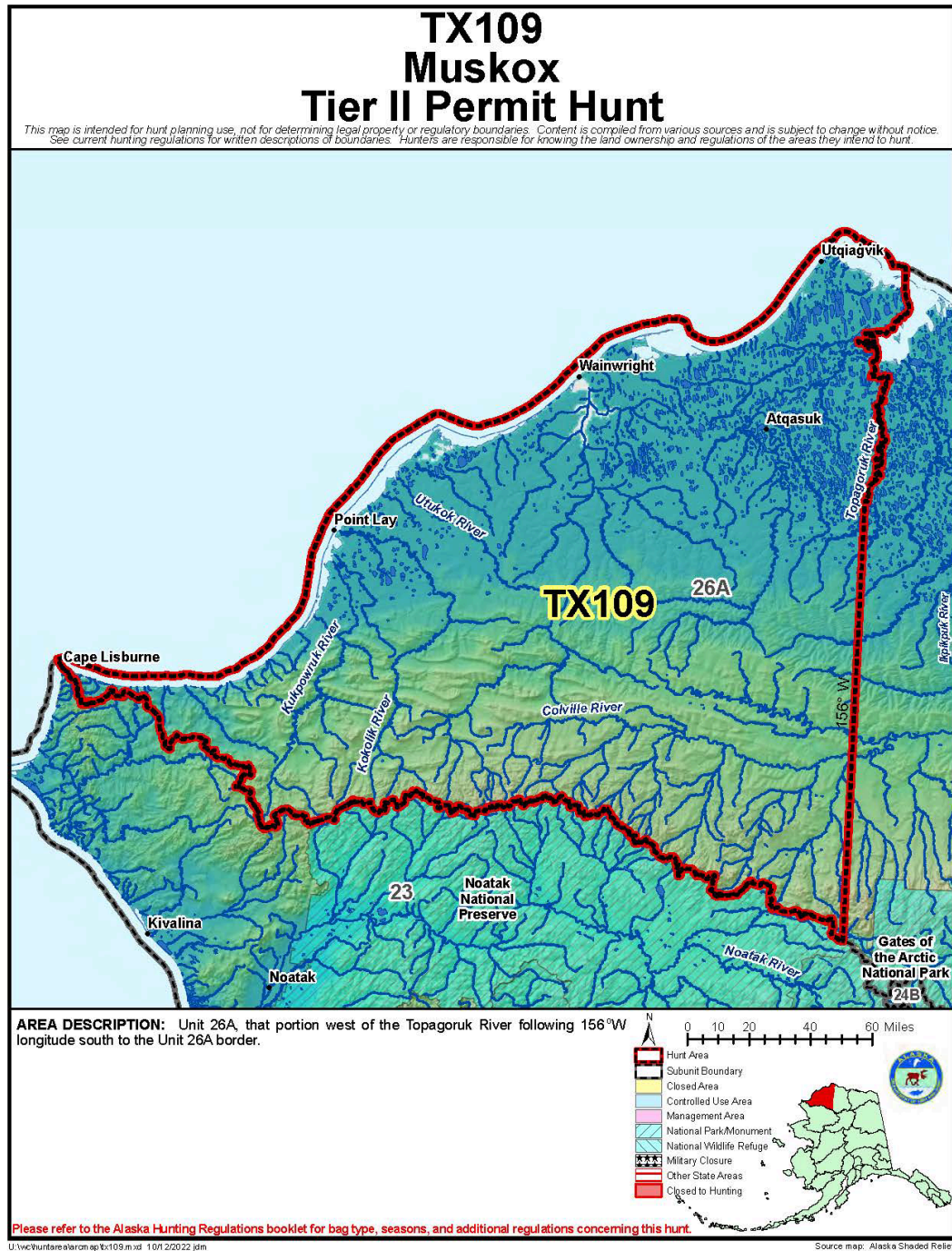


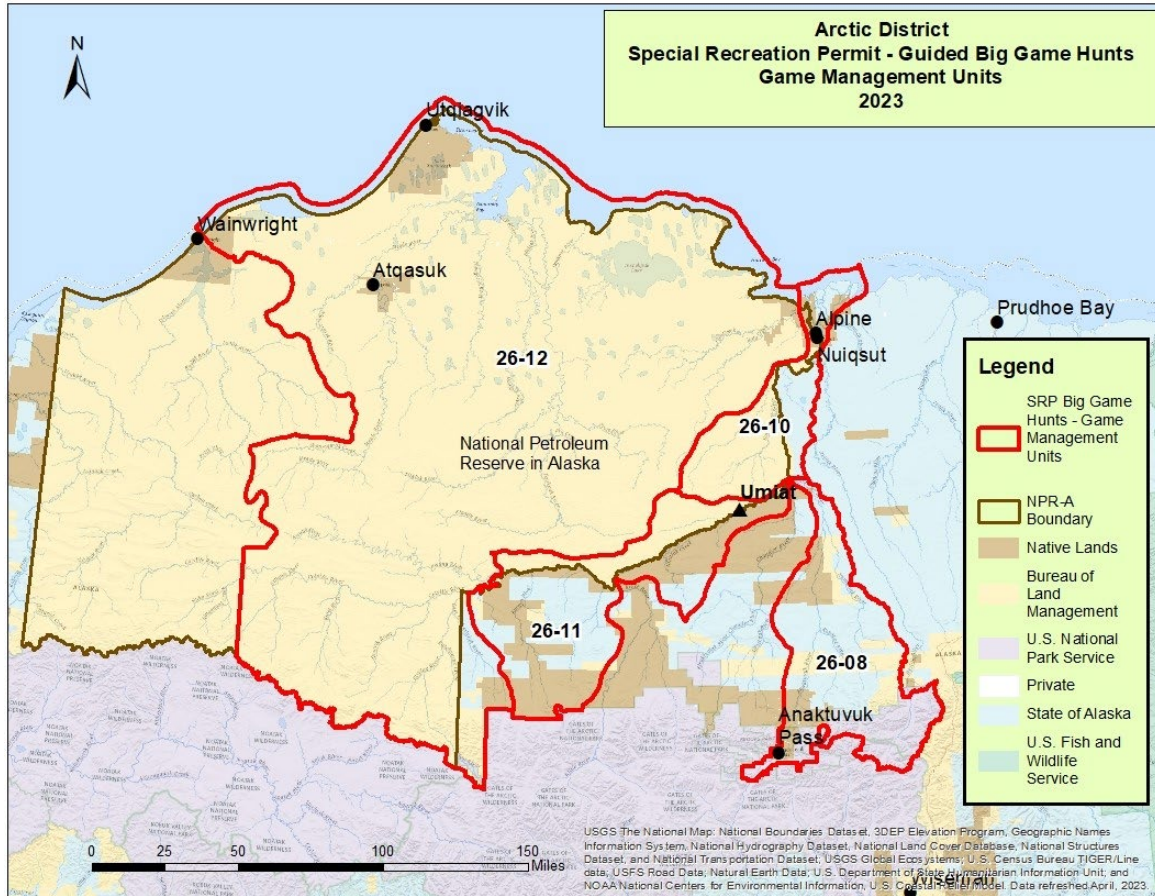
Figure 3. State TX109 Muskox Hunt

### Special Recreation Permits for Guided Hunting on BLM lands

Currently there are 3 active special recreation permits (SRPs) for guided hunting on BLM managed lands in the NPR-A: RWS Guide Service (Game Management Unit (GMU) 26-12), Frosty View Lodge, LLC (GMU 26-08), AND Alaska Arctic Adventures (GMUs 26-12, 26-11, 26-10). The map below depicts these



GMUs, however guided activity is focused on specific areas and not all portions of the GMUS are on BLM lands.



### Game Management Units used by Guides in the NPR-A

Alaska Arctic Adventures has the highest harvest and number of the 3 SRPs in the NPR-A as shown in the table below. Hunts are generally confined to the Colville River and the surrounding area. During the renewal of this SRP in 2022, a stipulation was added to the permit that guided hunting could not take place within 50 miles of the community of Nuiqsut in order to limit user conflict in the area.

<b>Alaska Arctic Adventures</b>	2019	2020	2021	2022
Number of Guides	3	6	6	6
Number of Clients	9	44	45	48
Number of Caribou Harvested	9	38	36	41
Number of Bear Harvested	0	3	4	4
Number of Flights	8	53	56	59
Location Used	Umiat/Colville River	Umiat/Colville River	Umiat/Colville River	Umiat/Colville River

Alaska Arctic Adventures harvest and use data, 2019-2022

RWS Guide Service has operated sporadically on BLM lands in the NPR-A. The table below portrays limited guided hunts occurring in 2019 and 2021, all based along the Nigu River.

<b>RWS Guide Service</b>	2019	2020	2021	2022
Number of Guides	2	N/A	2	N/A
Number of Clients	4	N/A	9	N/A
Number of Caribou Harvested	2	N/A	1	N/A
Number of Bear Harvested	0	N/A	3	N/A

Number of Flights	8	N/A	5	N/A
Location Used	Nigu River	N/A	Nigu Rover	N/A

RWS harvest and use data, 2019-2022

While Frosty View Lodge, LLC has held an SRP for the last 5 years, no guided hunting has occurred on BLM lands during the 2019-2022 timeframe. Guided hunting statistics for 2023 will be available later this fall.

### **BLM Resource Advisory Council**

The BLM Alaska Resource Advisory Council Coordinator is preparing for a national call for nominations to fill pending vacancies in Categories II and III (see roster below). Specifically, the bureau is looking for additional representation from North Slope, Yukon Kuskokwim, and Interior Alaska residents, especially those who may represent Elected Officials, Tribal/Alaska Native interests, and the Public-at-Large.

The BLM Alaska Resource Advisory Council (RAC), created by the Federal Land Management Policy Act (FLMPA) is distinctly different in makeup, legal requirements, and chartered duties than the Regional Subsistence Advisory Councils. BLM Alaska’s RAC has up to 15 members from across the state who provide advice and recommendations to the Secretary of the Interior through the BLM Alaska State Director on resource and land management issues for approximately 70 million acres of BLM-administered public land in Alaska. Over the years, this group has supported the bureau and their fellow Alaskans with creative and durable solutions to complex land management issues.

Members are residents who represent a cross section of Alaskans representing varied interests such as energy, commercial recreation interests; environmental organizations, archaeological or historic interests; and elected officials, Alaska Native organizations, and the public at large. Council members are selected for their ability to provide informed advice on an array of public lands issues and their demonstrated commitment to building consensus among opposing viewpoints and creating solutions.

The BLM Alaska RAC meets two-to-three times per year for one-to-three days per meeting. Members are appointed to three-year terms and may be reappointed to consecutive terms. Members serve without salary but are reimbursed for some travel costs when travelling for official business. The bureau coordinates all official travel on behalf of members. If a member moves out of state or an elected official is not re-elected before their term expires, they are considered to have vacated their seat.

The coordinator keeps members updated about agency priorities and activities by ensuring they receive news releases and by meeting monthly with the chair and co-chair. They also inform annual meeting schedules and agendas, etc. The coordinator maintains public records of meetings, in compliance with applicable laws and regulations, up to and including digital presentations, meeting minutes, news releases, member roster, bylaws, and charter on the BLM website. [www.blm.gov/Alaska/RAC](http://www.blm.gov/Alaska/RAC)

Applicants to the BLM Alaska RAC are required to fill out and sign an application document and have at least one letter of reference. They may also submit a resume, curriculum vitae, or cover letter with their applications. The State of Alaska is solicited for nominees during application periods and is provided with the bureau’s nominees for concurrence. Final appointments are at the sole discretion of the Secretary of the

Interior and are not subject to a specified timeline. To better understand the seats coming available for applicants, please see the below roster. Current and pending vacancies are highlighted. These members are welcomed to reapply and may be reappointed.

Interested parties are encouraged to contact BLM Alaska RAC Coordinator, Melinda Bolton, [mbolton@blm.gov](mailto:mbolton@blm.gov), 907-271-3342.

Calendar Year 2023 BLM Alaska RAC Membership						
First						
Category I - Commodity interests (i.e. holders of Federal grazing permits; Transportation/Rights-of-Way; Developed Outdoor Recreation, OHV Use, or commercial recreation; commercial timber industry; or energy and mineral development)						
AlexAnna	Salmon	E & M Development	Tribal Admin	9/2023	9/2026	
Bronk	Jorgensen	E & M Development	Placer Mining	9/2023	9/2026	
Justin	Mason	Recreation	Recreation	9/2023	9/2026	
Lee	Hart	Recreation	Recreation	9/2023	9/2026	
Kathryn	Martin	Transportation & ROW	ANC	9/2023	9/2026	
Category II - Non-commodity interests (i.e. National/Regional Environmental Interests; Dispersed Recreation Activities; Archaeological/Historical Interests; or National/Regional Wild Horse and Burro Groups)						
Karlin	Itchoak	Environmental	Reg. Enviro	9/2023	9/2026	
Rachel	James	Environmental	Reg. Enviro	1/2023	1/2026	
Rodney	Arno	Dispersed Rec	Non-profit policy	1/2021	1/2024	
David	Gregory	Archeology/Historical	ANC Lands	1/2021	1/2024	
Sean	Sullivan	Dispersed Rec	E & M Dev	1/2021	1/2024	
Category III - Public interests (i.e. State, County, Local Elected Officials; State Natural Resource Agency; Native American Tribal Interests; Academicians in Natural Resources; or the Public-at-Large)						
VACANT		Elected Official				
Stephanie	Quinn-Davidson	Public-at-Large	Non-profit policy	9/2023	9/2026	

Jen	Leahy	Public-at-Large	Non-profit policy	1/2023	1/2026	
Jeff	Bruno	State Agency Rep	State of AK	1/2021	1/2024	Y
Erik	Kenning	Tribal Rep	ANC Lands	1/2021	1/2024	

## BLM Arctic Office Staff Information

Arctic District currently has a staff of 17 people. The Arctic District Office, located in Fairbanks, Alaska, manages surface resources in the NPR-A. We have a Community Outreach Specialist located in the communities of Nuiqsut and Utqiagvik.

Heather Savage is trained to issue USFWS subsistence hunting permits through the Federal Subsistence Management Program. These permits allow holders to harvest additional caribou, beyond their individual take limit on behalf of specific community members who cannot or are unable to harvest caribou themselves. For additional information please refer to: <https://www.doi.gov/subsistence>.

The office has a budget of approximately \$3.7 million. Roughly \$1.7 million is spent on labor and about \$1 million on our aviation program (a 100-day helicopter and fixed wing contract, fuel and runway maintenance). Much of the rest is spent through agreements and partnerships with UAF, USGS, USFWS, ADF&G and NSB on various hydrology, fish and wildlife monitoring studies.

### Contact Info

BLM Arctic District Office Manager: Shelly Jones: [njones@blm.gov](mailto:njones@blm.gov), 907-474-2310 (office); 907-371-6915 (cell)

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BLM Arctic District Office Resources Supervisor: Ted Inman: [tinman@blm.gov](mailto:tinman@blm.gov), 907-474-2311

BLM Arctic District Office Planner: Sarah LaMarr: [slamarr@blm.gov](mailto:slamarr@blm.gov), 907-474-2200

BLM Willow Master Development Plan/EIS Project Lead: Carrie Cecil: [ccecil@blm.gov](mailto:ccecil@blm.gov); 907-271-1306

BLM Legacy Wells Program: Melody Debenham: [kdebenham@blm.gov](mailto:kdebenham@blm.gov), 907-474-2307

BLM Arctic District Office Fish Biologist: Katie Drew: [ksdrew@blm.gov](mailto:ksdrew@blm.gov), 907-474-2315

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BLM Arctic District Anthropologist: Beth Mikow: [emikow@blm.gov](mailto:emikow@blm.gov), 907-474-2309

BLM Arctic District Soil Scientist: Matthew Ferderbar: [mferderbar@blm.gov](mailto:mferderbar@blm.gov), 907-474-2325

BLM Arctic District Natural Resource Specialist: Ashley Sabatino: [asabatino@blm.gov](mailto:asabatino@blm.gov), 907-474-2303

BLM Arctic District Realty Specialist: Lonnie Bryant: [lbryant@blm.gov](mailto:lbryant@blm.gov), 907-474-2306

BLM Community Outreach Specialist: Jamie Kasak: [jkasak@blm.gov](mailto:jkasak@blm.gov), 907-474-2301

BLM Community Outreach Specialist: Frank Damiano: [fdamiano@blm.gov](mailto:fdamiano@blm.gov), 907-852-2757

## **Permitting Links**

- BLM Alaska Webpage: <https://www.blm.gov/alaska>
- BLM Arctic Office Permitting email: [blm\\_ak\\_arctic\\_permitting@blm.gov](mailto:blm_ak_arctic_permitting@blm.gov)
- BLM National Petroleum Reserve in Alaska (NPR-A) Webpage: <https://www.blm.gov/programs/energy-and-minerals/oil-and-gas/about/alaska/NPR-A>
- BLM ePlanning (NEPA): [https://eplanning.blm.gov/epl-frontoffice/eplanning/lup/lup\\_register.do](https://eplanning.blm.gov/epl-frontoffice/eplanning/lup/lup_register.do)
- Allows online review of and comment on BLM planning and implementation projects. This site also simplifies document searches by enabling searches by geographic location, project resource type, project year, and other specific fields.
- BLM NPR-A News Facebook Page: <https://www.facebook.com/BLM.NPRA.SAP/>