

frontiers

White Mountains
National
Recreation Area

WHITE MOUNTAINS
NATIONAL RECREATION AREA

Going Digital



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@BLMAlaska



Welcome to *frontiers*!

Changes are coming to BLM Alaska as we continue to meet the challenges of public land management in these highly evolving technical times. With this issue, *frontiers* is becoming a fully digital news magazine. This also means some format changes, active links for more information, a longer publication as we are no longer constrained by high printing costs.

Our new digital map series is making it possible to have maps on your smartphone or tablet off-the-grid, for better safety and getting there. Our Alaska Fire Service is using newer technologies to help fight fires. The Trans-Alaska Pipeline System is using newer technologies to monitor the pipeline with a high tech robot-type crawler “pig.” We are bringing you some of these stories and much more in this, our 2017 summer issue.

Karen J. Laubenstein
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Check out our New Website! www.blm.gov/alaska

Visited our website in the past few months? If you have, you'll notice that we replaced our outdated 10-year old web system and its burden of over 90,000 pages. Our new site and look has new navigation and is mobile-friendly. It is easier to build and maintain, which saves time and money. The changes conform to the Department of the Interior's efforts to modernize and upgrade website technology.

Due to the vast size of the previous site, there are many links to the old website that the BLM is working to track down, replace, or allow to be corrected by search results. We encourage you to go to www.blm.gov and explore the new site.

Here are some helpful links to get you started:

- www.blm.gov/alaska - BLM Alaska Home Page
- [Recreation sites across the BLM](#) - Search by State, recreation activity and keyword
- [Press Releases](#) - Searchable by State, year and keyword
- [BLM Forms](#) - search for forms needed to do business with the BLM
- [Public Room](#) - Find maps, brochures, reports, fact sheets, guides, and more!
- [BLM Policy](#) - directives, manuals and handbooks
- [BLM Alaska Subsistence](#) - Federal subsistence program information and Game Unit 13 hunting information.
- [BLM Alaska Land Use Plans](#) - Current land use planning information and link to the ePlanning portal for NEPA documents.



rules to play by

The Doggy Doo Dilemma...

Thriving E. coli or fecal coliform bacteria, salmonella and giardia, and high nitrogen levels in canine feces are polluting our public lands (65,000 dogs daily relieve themselves of 48,000 pounds of waste in Anchorage alone!). Even a single gram of dog waste can contain 23 million fecal coliform bacteria! The bacteria can give you cramps, diarrhea, intestinal illness, and serious kidney disorders.

Fecal parasite larvae lingers in the soil on our public lands for years, and can infect humans or animals. Children playing in dirt are vulnerable. The Anchorage Waterways Council says every creek except Rabbit Creek in the Anchorage area has fecal coliform. The U.S. Center for Disease Control and Prevention (CDC) says pet droppings can contribute to zoonoses — diseases animals pass to humans.

What to Doo?

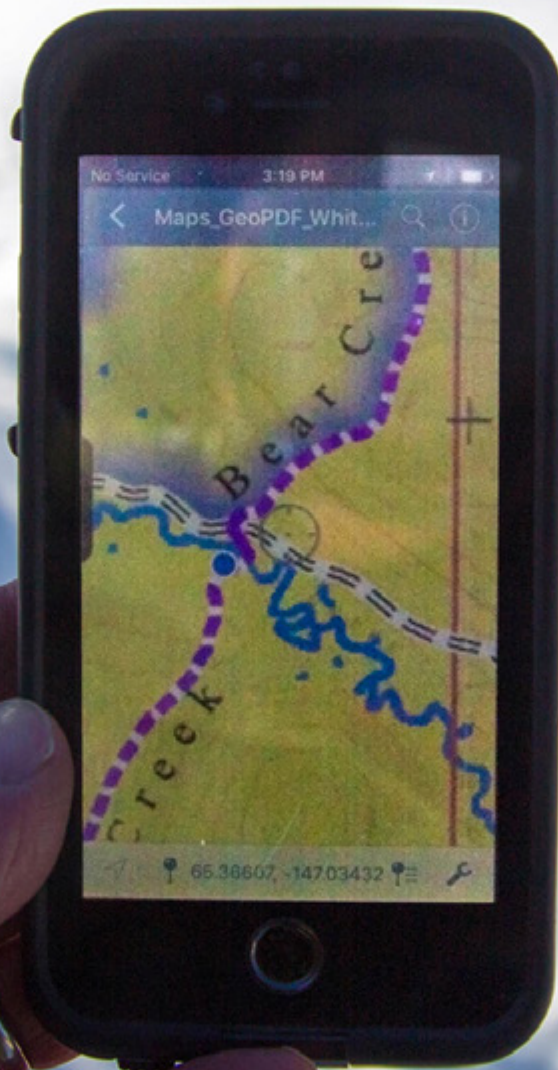
Pick up after your dog. Scoop the poop. Bag the doo. Do not assume it eventually goes away or will decay into fertilizer. If you always scoop, then it won't matter that areas like the BLM Campbell Tract have strict scoop the poop rules and others do not. It isn't the rules, it's the reasons behind them. So remember, the cycle begins and ends with you. There are even special flushable bags and biodegradable bags for pet waste disposal. That's 'what to doo.'



When a walk in the park becomes a walk in the poop! More than 100 piles of poop on less than 2.5 miles of trail on BLM's Campbell Tract in Anchorage. Help us keep your public lands clean. Scoop the poop! Campbell Tract is a favorite dog walking destination for Anchorage residents and their pets.

Lighten the Load!

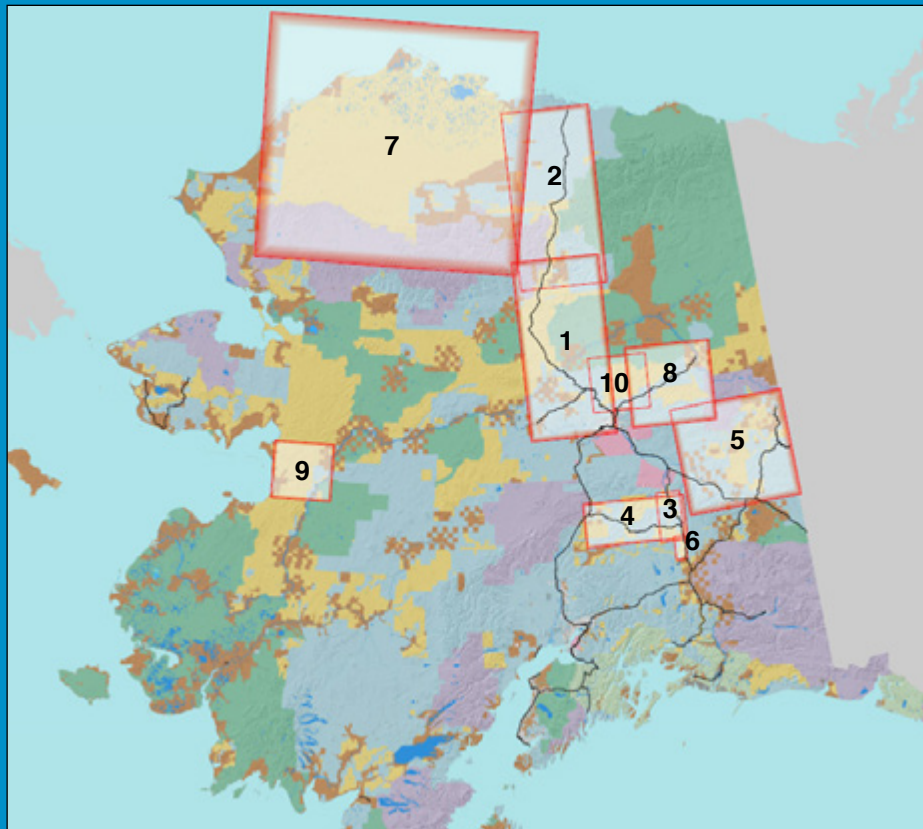
Georeferenced Digital Maps



*By Lisa Gleason
Public Affairs Specialist
Alaska State Office*

Currently Available Maps

1. Dalton Highway Corridor - Fairbanks to Coldfoot
2. Dalton Highway Corridor - Coldfoot to Deadhorse
3. Delta Wild and Scenic River
4. Denali Highway
5. Fortymile Wild and Scenic River and Taylor Highway
6. Gulkana Wild and Scenic River: Paxson Lake to Sourdough Campground
7. National Petroleum Reserve in Alaska
8. Steese National Conservation Area
9. Unalakleet National Wild and Scenic River
10. White Mountains National Recreation Area



Kim Mincer

Now you can enjoy Alaska's great outdoors as never before! Imagine having user-friendly, up-to-date maps covering large parts of Alaska that will work off the grid on your mobile devices.

Last March, BLM Alaska released ten downloadable georeferenced maps covering 102 million acres of BLM-managed public and adjacent lands.

You can easily download these newest BLM map products, and best of all, they are free from the BLM.gov website or the AVENZA™ map store.

How does it work?

1. Install mobile app.

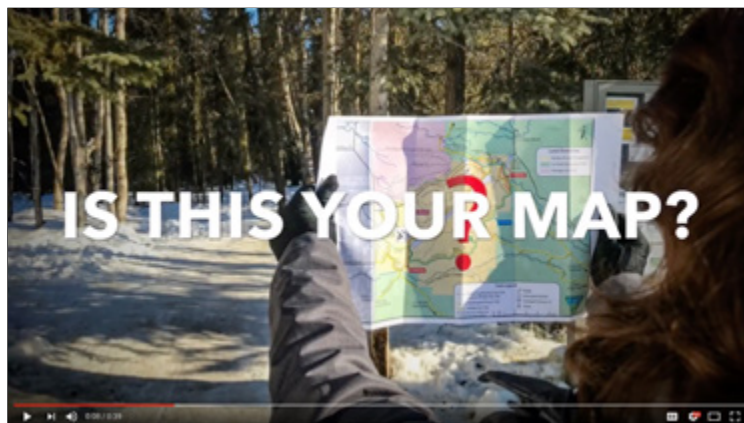
There are many apps available, such as AVENZA™ or NextMap®

2. Download a map.

From the BLM website: <https://www.blm.gov/maps/georeferenced-PDFs>

From Avenza: <https://www.avenzamaps.com/vendor/2126/bureau-of-land-management-alaska/>

There it is! With your installed mobile map application and initial download, your georeferenced PDF maps will work on your GPS-enabled mobile devices (smart phones/tablets). Now you can find the most current geospatial data embedded into each map, plus enjoy a common look and feel across the entire series. Later, when you go off the grid, your maps will still work.



Lisa Gleason

Check out our digital map debut video on YouTube:

<https://youtu.be/7jp3Y9P8zAI>

Mobile mapping systems can improve access to your public lands and increase safety for adventurers and explorers in Alaska. Each map contains useful information to include recommended campsites, seasonal activity details, and road, trail and river markings. More importantly, with the GPS enabled on your mobile device, you'll know exactly where you are within the area of the map. The BLM plans future releases that include maps for Campbell Tract in Anchorage and the Iditarod National Historic Trail.

Pigs in the Pipeline



Courtesy of Alyeska Pipeline Service Company/
Anchorage Museum Rasmuson Center archives

TAPS Celebrates 40 Years

“At the heart of this celebration are the memories and voices of those who helped build, operate and maintain the pipeline, and the stories of people, families, businesses and communities with unique ties to TAPS.” – Alyeska Pipeline Services Company

First operational in 1977, this year marks 40 years for the Trans-Alaska Pipeline System.

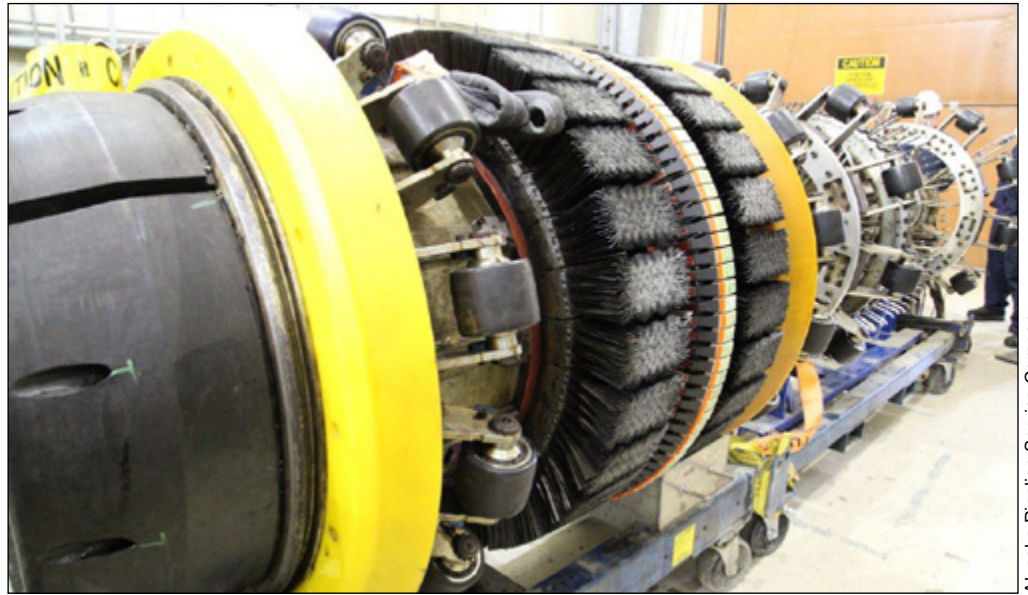
TAPS came online nine years after the 9.6 billion-barrel oil discovery in Prudhoe Bay. It took five years of engineering and scientific work and survived lengthy Congressional deliberations and court battles.

It was the 1973 oil crisis that pushed Congress to pass the *Trans-Alaska Pipeline Authorization Act* that year. Barely passing, it came down to a single deciding vote — then Vice President Spiro Agnew broke the tie in the Senate, sending the bill to President Richard Nixon, who signed it Nov. 15.

In 1974, the Department of the Interior granted the federal right-of-way.

At a cost of \$8 billion (\$31 billion in 2017 dollars), TAPS is among the most expensive privately funded projects in the world — surpassing the Airbus A-380 jumbo jet development (\$22 billion), Sears Tower (\$810 million, adjusted), Empire State Building (\$650 million, adjusted), Taipei 101 (\$2 billion) and Princess Tower in Dubai (\$2 billion) — combined.

—Jim Hart,
Public Affairs Specialist



Alyeska Pipeline Service Company

The In Line Inspection Tool, better known as a “smart pig,” detects wall loss on a pipeline without stopping the flow of oil.

This little piggy did not go to market; this little piggy did not stay home. This pig is neither a cute curly-tailed animal nor symbolic toes on your feet. This pig is an “In Line Inspection Tool” (or “smart pig”), high-tech equipment that detects wall loss on a pipeline without stopping the oil flow. Early models made a squealing noise while traveling through the pipeline, resulting in the “smart pig” nickname.

The 800-mile Trans-Alaska Pipeline System (TAPS) uses smart pig technology to ensure the pipeline’s continued integrity. The “pigging” process detects wall loss due to internal/external corrosion or mechanical damage. It also measures the pipe’s shape. This information helps the operator (Alyeska Pipeline Service Company) know what requires immediate attention and/or increased monitoring.

The operator uses both inspection pigs and cleaning, or “scraper pigs.” Both types use a launcher, a receiver, and the oil flow to move through the pipe. TAPS has three launch sites and three receiver sites. A new technology, an interactive crawler pig, evaluates sections of pipe that a traditional smart pig could not. Its robotic arms contract and expand, crawling various pipe sizes looking for problem areas. Before using a crawler pig, the pipe must be empty and cleaned thoroughly.

BLM Branch of Pipeline Monitoring staff provide oversight for pigging operations and are notified of any significant wall loss and plans for investigation and repair.

The operator runs cleaning pigs weekly or biweekly and smart pigs every three years. The oversight on these and other operator-performed preventive maintenance activities ensure the continued safe operation of the TAPS.

—June Lowery,
Public Affairs Specialist

Maintaining the Trans-Alaska Pipeline System

Every summer, Alyeska Pipeline Services Company temporarily halts the flow of crude oil in the Trans-Alaska Pipeline System (TAPS) for critical maintenance and repairs. TAPS, an 800-mile, 4-foot diameter pipeline, transports crude oil from North Slope oil fields to the Valdez Marine Terminal for eventual loading onto tankers, most of them destined for refineries on the U.S. West Coast.

The 40-year-old system was designed for a flow rate of 2 million barrels per day, but the wells have drawn down and flows have decreased to about 500,000 barrels per day.

The BLM Alaska Branch of Pipeline Monitoring is unique within the BLM as the lead federal agency over the entire TAPS, including all of its supporting infrastructure and the right-of-way.

During the scheduled 18-hour shutdowns, four teams of BLM technicians monitor the progress of maintenance and repair projects and

observe equipment tests mandated by the Pipeline and Hazardous Materials Safety Administration.

This summer's tasks include valve checks in over a dozen locations, the replacement of a 42-inch gate valve at the Valdez Marine Terminal, and equipment replacement projects at several of the pump stations. Each team usually includes an engineer and an operations and maintenance specialist to bring the greatest combined skillset to each location.

With the pipeline in its 40th year of operation, the need for maintenance grows with each passing year.

The BLM works closely with the pipeline operator, Alyeska Pipeline Services Company, to continue supplying this vital energy resource to the nation in an environmentally mindful way to protect the public interest. Alyeska has been a leader in the pipeline industry, and has consistently received recognition from its peers. These accolades

include both the 2015 and 2016 Governor's Safety Award of Excellence. This award is especially significant, as the pipeline operates in one of the most inhospitable environments in the world.

— *Augie Carrillo*
Engineer

Branch of Pipeline Monitoring



Jason McKinnon

Branch of Pipeline Monitoring Environmental Engineer Reid Olson monitors the “stroking” of a 48-inch gate valve, checking for any problems.



Shawn Swanson

Branch of Pipeline Monitoring Operations and Maintenance Specialist Danielle Wiley observes electrical measurements during valve system checks.



Greg Bjorgo

Mechanical engineer Tina McMaster-Goering points out the condenser fins of a cooling system in the vertical supports. These condensers remove excess heat from the supports that would otherwise melt the permafrost.



Public Lands Support Science in North

Did you know that BLM-managed public lands host our nation's premiere Arctic research station? Toolik Field Station on Alaska's North Slope is on lands the Central Yukon Field Office manages.

The Toolik Field Station is a self-contained, full-service research facility. It has a kitchen and dining facilities, laboratories, IT infrastructure, a helibase, power generation, waste handling and dormitory lodging. Access to the field station is via the Dalton Highway from Fairbanks, 370 miles away.

From its humble 1970s beginnings as a rustic, no-frills seasonal field camp on the southeast shore of Toolik Lake, the Toolik Field Station grew into a world-class, Arctic research facility. It annually supports about 80 research projects/field courses with 450-500 participants working in more than 20,500 different research plots. Over the last 30 years, the facility expanded on temporary gravel pads. A former airstrip used during construction of the Trans-Alaska Pipeline System, has occurred within a 30-acre lease that the BLM established in 1993 for the field station. The National Science Foundation's contractor, CH2M Hill Polar Services, manages the

field station's facilities, engineering, and support services; while the University of Alaska Fairbanks' Institute of Arctic Biology manages its operations.

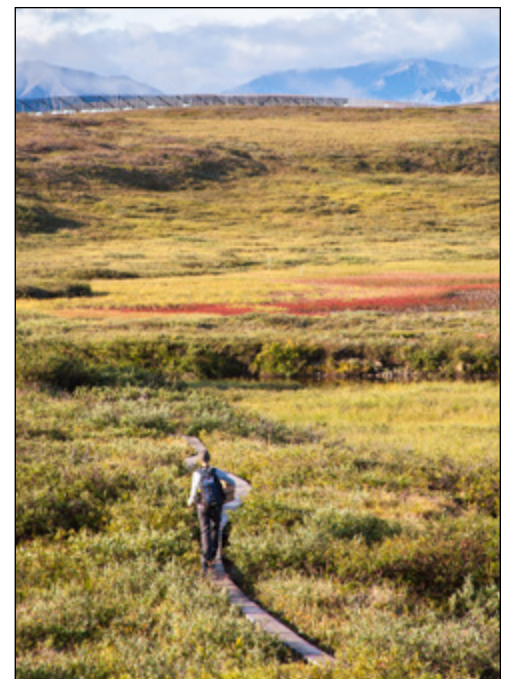
Researchers draw from combined funding of approximately \$36 million, with 80 percent of that from the National Science Foundation. From space atmospheric physics to hibernating ground squirrels, and aquatic and terrestrial plants, the research supported at Toolik Field Station has had far-reaching scientific consequences. The BLM acknowledged the significance of the lands around Toolik Lake for scientific study in 1990 when designating approximately 80,000 acres of public land as the Toolik Lake Research Natural Area (RNA).

Scientists based at Toolik can access a number of short- and long-term research plots, monitoring equipment, and sample sites via an extensive network of boardwalks installed to minimize tundra impacts. For working further afield, the field station provides two helicopters, and snowmobiles for winter travel.

For the BLM Central Yukon Field Office, Toolik Field Station presents both a considerable permitting and monitoring workload as well

as a source of pride in BLM's role supporting the scientific use of public lands.

— *Bill Hedman,*
Assistant Field Manager,
Central Yukon Field Office



Scientists at Toolik walking the extensive network of boardwalks installed to minimize tundra impacts.

(above) Toolik Field Station is a self-contained, full-service research facility with kitchen and dining facilities, laboratories, IT infrastructure, helibase, power generation, waste handling, and dormitory lodging.

The Arctic District: Still Outstanding Without its 'Field'



Arctic District Office Hydrologist Richard Kemnitz surveys a lake's water level for a water use study near the Alpine oilfield facility on Alaska's North Slope. Extreme temperatures, howling winds, darkness, and polar bears are among winter fieldwork challenges.

As part of reorganizing BLM Alaska, the Arctic Field Office under the Fairbanks District Office is now the Arctic District Office under the Alaska State Office. With its high-profile resource management issues and decisions involving the National Petroleum Reserve in Alaska (NPR-A), the change improves the BLM's ability to manage priorities, with the high level of interest to both the Department and Congress on this unique piece of public land.

The reorganization did not affect the Arctic District's land management responsibilities, most of which lie within the 22.8-million-acre NPR-A. Nearly the size of Indiana, the petroleum reserve is the largest single block of federally managed land in the United States. Due to its Arctic setting, size, and unique regulatory restrictions, the NPR-A presents management issues that differ from elsewhere in the Bureau.

The Arctic District's vast area has almost no road access or cell coverage; reliable satellite communication and aircraft are critical to completing its mission. Planes and helicopters serve multiple purposes, from transport to and from project sites, to ferrying supplies, scientific instruments, and other items. If the District's Inigok Field Facility in the middle of the NPR-A runs out of toilet paper or AA batteries, replacements fly 333 miles from Fairbanks on the next scheduled plane.

Under the reorganization, Arctic District Manager Stacie McIntosh reports directly to the Alaska State Director. The Arctic District staff continue to work out of the Fairbanks District Office building in Fairbanks.

— Craig McCaa,
Public Affairs Specialist
Fairbanks District Office



The BLM's Inigok Field Facility in the NPR-A next to an old gravel airstrip, far from any road access. Inigok serves as an aircraft-supported logistical base during the busy summer field season, then closes each winter.

Bob Wick



Kato Howard

The BLM Alaska Fire Service used a UAS to capture aerial video footage and stills of a prescribed burn on bison habitat for the Alaska Department of Fish and Game. It was the first use of a UAS by Alaska Fire Service on a fire.

Firefighting Expands its Capability with UAS Technology

It was a clear, cold afternoon – typical for early spring in Anchorage – when a group of 15 students took to the skies with one of the BLM’s newest tools for managing resources and fighting fire. They were participants in the BLM’s Unmanned Aircraft Systems (UAS) Basic Remote Pilot course.

Under a bright blue sky and the watchful eyes of their instructors, the students worked in pairs as they went through their checklists and practiced maneuvers – climbing, hovering, slipping, turning, rolling, and flying basic patterns before descending and landing the UAS. The UAS– a quadcopter – was equipped with camera that can shoot still photos and video.

“This class is about building confidence to operate the aircraft,” said Gil Dustin, lead instructor of the national BLM UAS program. Dustin brought the class to Alaska to train additional UAS pilots for BLM Alaska, the U.S. Fish and Wildlife Service, and Alaska Division of Forestry.

“The first thing you learn is how to fly the aircraft. The second thing ... is how to use the camera,” Dustin explains.

After spending a week building their skills in the classroom and outdoors at the controls, the students

moved on to the Advanced UAS workshop, which focuses on learning to apply those skills safely and gather data for fire operations and resource projects. UAS transmit data in real time, providing timely, accurate information.

The training was put to use the following month when the BLM Alaska Fire Service flew a UAS on two prescribed fires that assisted the Alaska Division of Forestry with regenerating bison habitat. Fuels management specialist and UAS pilot Kato Howard captured aerial footage and images of the prescribed burns to document fire behavior, operational procedures and post-fire monitoring of habitat restoration. This was the first time the fire service used a drone on a wildland fire in Alaska. It also demonstrated the value of UAS as a fire management tool.

“What amazed us is you get a totally different view of the fire [with a drone] than you get on the ground” Howard said. “We were surprised at what we could see beyond the line of sight of the UAS itself. The camera can get good, quality images at a distance.”

The Department of the Interior has summed up the benefits of using UAS in four words: science, safety, savings and service. With those benefits in mind, the BLM

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and other DOI agencies are exploring the use of UAS for mapping fires, vegetation, and rivers; monitoring wildlife; and conducting reclamation and compliance inspections, among other uses. UAS can be operated at a cost substantially lower than manned aircraft. And, most importantly, the use of UAS can reduce the risks associated with manned flight. Because drones can fly low and slow for extended periods of time and can

go where planes may not be able to, they can be used on missions that may be too risky for manned aircraft.

“It’s nice to have alternatives when making risk decisions and UAS is a really great alternative,” said Dustin.

Before taking a seat in the BLM’s UAS class, students had to pass a Federal Aviation Administration exam and apply for the FAA’s remote pilot certificate. They also had to complete interagency on-line

training in aviation safety, airspace regulations, agency aviation policy, read aviation mishap reviews, read the operating manual for the UAS aircraft, and DOI policies regarding the use of drones. Their supervisors also had to complete aviation management training for supervisors.

— Maureen Clark
Anchorage District Office
Public Affairs Specialist



Maureen Clark



Maureen Clark

(left top) The UAS aircraft coming in for a landing. (above) Instructor and Boise Smokejumper, Alex Abols (left) and student John Freamont (right) watch the video display on the UAS flight controller. (below) Students practice maneuvers.



Maureen Clark



Iditarod Trail Challenges Competitors

Historic Rohn Roadhouse checkpoint.

The annual Iditarod Trail Sled Dog Race is the best-known competitive event that takes place on the Iditarod National Historic Trail. But other human-powered events on the trail demand much from those who take on the challenge.

The Iditarod National Historic Trail is a unit of the BLM's National Conservation Lands. As part of trail management, the Anchorage Field Office authorizes and monitors these and other activities. This year,

BLMers joined the Iditarod Trail Invitational and Iditasport Extreme as both competitors and volunteers.

Racers at these events travel the trail on foot, bike, or skis for either 400 miles to McGrath in Alaska's Interior, or 1,000 miles to the Bering Sea coastal town of Nome. The roadless route travels over frozen tundra and rivers and through the rugged Alaska Range. This year's competitors had to contend with temperatures as low as 40 degrees below zero.

For Melissa Schwarz, an Alaska Fire Service helicopter manager, the Iditarod Invitational was another chance to see how far she can push herself on her fat-tire bike and an opportunity to enjoy Alaska's remote places. Schwarz came in second among the women in the race, reaching McGrath in a time of six days, six hours, 11 minutes.

BLM Alaska State Aviation Manager Gary Baumgartner pedaled his fat-tire bike to McGrath in the Iditasport Extreme, to take fifth place among bike competitors with a

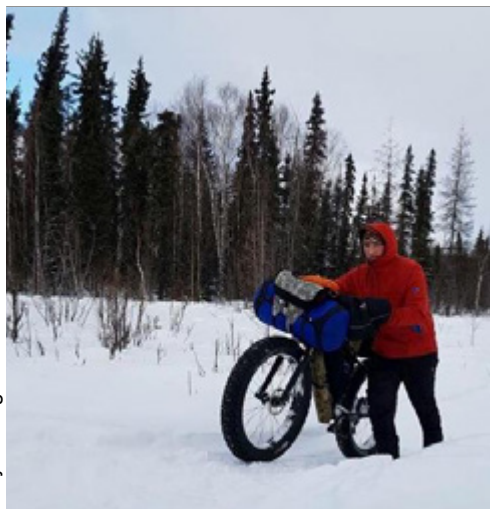
time of 7 days, 14 hours, 31 minutes. For Baumgartner, who grew up in McGrath, the race was a trip home unlike any other.

"The riding conditions were very difficult this year due to soft trails and drifting snow. I planned for three to four days and it took more than seven to make it to McGrath," said Baumgartner. "I knew I'd be in trouble if I had to push my bike more than 20 miles. As it turns out I pushed my bike for more than 100 miles. The extra time on the trail and all the walking really took a toll on my body."

Alaska Fire Service smokejumper, Robert Yeager, also began the Iditasport Extreme, but Yeager scratched after injuring his knee forty miles into the race.

For former BLM Alaska Supervisory Land Surveyor Michael Schoder, the Iditasport Extreme is a chance to volunteer his time and his single-engine plane to help support the race and his wife, Anne Ver Hoef, an ultra-marathoner and one of the

— continued on page 13



Deep snow forced Gary Baumgartner to walk his bike for much of the race.

Learning to Fight Wildland Fires

This spring, the Alaska Fire Service provided a weeklong, hands-on “red card” training class to 41 Alaska Job Corps students in basic wildland firefighting.

“We’re not turning you into firefighters, we’re giving you the tools to get into the field and succeed if you choose to,” said training instructor Chase Maness, a foreman on the Midnight Sun Interagency Hot Shot Crew. Other instructors included Ben Ferguson, another Midnight Sun Hot Shot, and John Glover, Alaska Division of Forestry. The Alaska Division of Forestry also provided training materials and administered the arduous physical test for the students at the end of the training.

The instructors counseled the students that these skills can lead to a successful and rewarding career. During one training session, students took turns sharpening a pulaski, a commonly used wildland firefighting tool.

— Beth Ipsen,
Public Affairs Specialist,
BLM Alaska Fire Service



Melissa Schwarz after passing through the Alaska Range on the way to McGrath.

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Iditasport organizers.

Checkpoints are critical to the racers’ mental health and their morale,” Schoder said. “We take care of the racers as best we can, with a warm meal and a fire so they can dry out their gear before they head out on the next segment of the trail.”

An historic BLM shelter cabin at Rohn, north of the Alaska Range, serves as a checkpoint. “That cabin is a highlight for these racers,” Schoder said. They’re able to lie down on a bunk and get some sleep.”

There is no prize money in these races. The racers do it for the personal challenge.

“It’s a rare breed that’s comfortable traveling by themselves and taking care of themselves. At any speed, it’s an accomplishment,” said Schoder. “When the misery has faded, they can remember the fantastic views of the northern lights and the sunrises.”

Baumgartner echoed that sentiment. “As difficult as it was I’d do it again, even with the same conditions.”

— Maureen Clark
Anchorage District Office
Public Affairs Specialist



(above) Ever sharpen a pulaski?? Instructor Ben Ferguson, left, helps Alaska Job Corps student Esai Montes as he and fellow student Ying Yang learn to sharpen pulaskis during a basic wildland firefighting class.



(left) About 70 percent of Alaska Job Corps students are from rural Alaska, including 21-year-old Kotlik native Scott Andrews, who attended the basic wildland firefighting class offered by BLM Alaska Fire Service.

Campbell Tract gets a Green Star for Outstanding Recycling and Waste Reduction

This year the BLM Campbell Tract Facility was awarded a Green Star. The Alaska Forum on the Environment's Green Star program recognizes facilities for their efforts to reduce waste and increase the sustainability of their operations.

The 730 wooded acres in the heart of Anchorage, the BLM Campbell Tract Facility is home to both the Anchorage District and Anchorage Field offices. In addition, the Campbell Tract Facility also supports the BLM Alaska State Office, BLM Alaska Fire Service, U.S. Fish and Wildlife Service Anchorage Field Office, and an interagency dispatch center. It houses a warehouse, maintenance shop, communication sites, and an active airstrip and heliport.

In recent years, Campbell Tract employees launched a concerted effort to recycle and reduce waste. Separating cans, waste paper, and cardboard from trash became a matter of course. But, the effort quickly moved well beyond that.

In 2015, the Campbell Tract Facility recycled:

- 440 pounds of lead/acid and NiCad rechargeable batteries,
- 9,023 pounds of scrap metal and aluminum,
- 5,348 pounds of computers and miscellaneous electronics,
- More than five tons of cardboard and mixed paper.



Maureen Clark

Anchorage District Manager, Mark Spencer, receiving the Green Star Award.

A space heater used to heat the maintenance shop burns used-oil as well as jet fuel left over from field work. In addition to offsetting heating costs, the heater helps avoid disposal of fuel products.

Light fixtures have been converted to LED wherever possible, saving on electricity. The facility has made the switch to bio-based cleaning materials and the use of hazardous chemicals has been reduced wherever possible. In addition, low flow plumbing fixtures have been installed and the facility is moving away from heating fuels to natural gas.

“The Bureau of Land Management’s mission has always included sustainable management of the public lands. So, recycling is very much a part of our agency culture,” said Anchorage District Manager Mark Spencer. “We’re very pleased to be recognized by the Green Star program. We know the value in reducing waste, conserving energy,

and preventing pollution, and are committed to continuing to consider our environmental impact in everything we do.”

The [Alaska Green Star program](#) was created in 1990 to recognize organizations that exercised environmental responsibility. It’s a non-profit that supports businesses and organizations looking to reduce waste through education, technical assistance, and a certification program. Green Star helps businesses and organizations reduce and eliminate waste through smarter purchasing, restructuring of employee procedures, maintaining and updating equipment, and recycling.

— Maureen Clark
Anchorage District Office
Public Affairs Specialist

Reclaiming Alaska's Streams after Placer Mining

Eastern Interior Alaska's streams and rivers are home to Arctic grayling fisheries and designated Wild and Scenic Rivers, drawing recreationists and anglers in increasing numbers. Since the Gold Rush, these waterways have also been the focus of placer mining. Today, the BLM's challenge is to manage these multiple uses into the future. If not responsibly developed, placer mining can significantly alter streambeds and riparian areas, with long-term effects to vegetation and stream function that fish habitat depend on.

BLM regulations require rehabilitation of mined areas to re-establish fisheries and wildlife habitat. As part of the BLM Eastern Interior Field Office work on its resource management plans for 6.7 million acres of public land including the Fortymile River area, BLM resource specialists collected data to develop metrics for assessing existing conditions and the effectiveness of reclamation actions.

Previous assessments were not standardized and often applied to small segments of streams within larger watersheds. The new effort used the Assessment, Inventory, and Monitoring (AIM) Strategy's National Aquatic Monitoring Framework to ensure standardized data that is scientifically defensible and more applicable beyond the local scale.

"In terms of population levels, grayling numbers in reclaimed areas were typically much lower than those at our reference sites," says BLM Alaska fisheries program lead Matthew Varner. "Habitat complexity was limited. Reclaimed streams often had unstable streambanks and few pools, which are essential to supporting fish populations and a key component of habitat rehabilitation."

The team collected information to quantify conditions for effective reclamation. These benchmarks are guiding BLM managers' resource decisions to incorporate best practices and corrective actions for miners to achieve adequate rehabilitation. Efforts underway will assist miners with design and construction of their stream reclamation projects.

Says Varner. "Sustainable resource development can be challenging but also very rewarding when stakeholders and science come together."

— Heather Feeney,
Public Affairs Specialist,
Idaho State Office



Matthew Varner



Matthew Varner



Matthew Varner



Matthew Varner

The BLM began reclamation at Jack Wade Creek in 2015 (*before*). One-year later (*after*), showing the establishment of vegetation and the recovery of stream function. The BLM Alaska team continues to measure improvements.

Learning in the Great Outdoors



Maureen Clark

Outdoor Week students learning how to fly cast.

The BLM Campbell Creek Science Center and Anchorage School District jointly hosted 1,500 Anchorage sixth-grade students at the Campbell Tract For the 43rd year.

“Outdoor Week encourages sixth-graders to discover lifelong outdoor recreation activities and explore career opportunities in resource management,” said Eric Stuart, BLM Campbell Creek Science Center school programs’ coordinator

This year’s four-day Outdoor Week began May 16 and focused on making learning outdoor activities fun. Students experienced lessons in staying safe in the outdoors, conservation of natural resources, having fun, and connecting to public lands.

Each day, instructors gathered for a safety briefing, sharing conversations over hot coffee and snacks provided by the non-profit Friends of the Campbell Creek Science Center. Soon, a flurry of activity began as different schools arrived on-site and separated into groups.

Before their sessions, the students first participated in “Nature Bingo” – a game to find different animals, insects, and plants pictured on their bingo sheets. Not only did the game put students into exploration mode, but also familiarized them with the natural world.

After “Nature Bingo,” the students moved to a series of learning stations. Hands-on stations featured gold panning, fly fishing, weather awareness, boat safety, Alaskan animal adaptations, bear awareness, how to interact with the natural world, and many more.

“My students love panning for gold and having the opportunity to make flies for fly fishing and cast a rod,” enthused Chrystal McMillan, a sixth-grade teacher at Fairview Elementary. “They were very excited to show off their gold and their flies to other staff members when we returned to school.” The majority of McMillan’s students had never visited the Campbell Creek Science Center and Campbell Tract before this event or had the opportunity to

explore the woods in Alaska — until now.

Along with gold panning and fly fishing, instructors provided safety tips. They learned what to do when coming in contact with bears or moose, to identify birds and other animal evidence left behind, how to put on lifejackets and about boating safety, and the importance of avoiding human-created impacts in the natural world.

Kristina Vlahovich, a Chinook Elementary sixth-grade teacher, has participated in Outdoor Week for the last six years. She would recommend this event to others because it continues to teach students important outdoor skills.

“I find this an excellent end-of-the-[school]year activity that takes very little effort on my part. The kids find it engaging, and I feel it teaches the kids important skills they need for living in Alaska, specifically the ones involving safety, but also the ones that teach a healthy Alaskan lifestyle.”

On the last day of Outdoor Week during a rainstorm, all of the instructors and volunteers converged at the Science Center for a celebratory lunch provided by the Friends of the Campbell Creek Science Center and prepared by BLMer's Betty Conlon and Dayle Sherba. Partners and BLM staff swapped Outdoor Week stories and shared how meaningful it is to work together on this annual event.

"Outdoor Week brings together Anchorage's community. From NOAA to the Muni and BOEM, Alaska Zoo to Audubon, and the Gold Prospector Association of America, we all pitch in to help kids create meaningful connections to the outdoors," said Nancy Patterson, BLM Campbell Creek Science Center manager. "We build relationships with each other and figure out additional ways we can support each other's work."

Discover the wonder of your own backyard with the BLM Campbell Creek Science Center.

<https://www.blm.gov/learn/interpretive-centers/campbell-creek-science-center> | @BLMCCSC

Learn about the non-profit Friends of the Campbell Creek Science Center <http://www.friendsofcampbellcreek.org>

— Bijan Welch

Bijan Welch is a writing intern with the BLM Campbell Creek Science Center and with the Friends of Campbell Creek Science Center. She is also a student at the University of Alaska Anchorage.



Students learning fly tying.

Maureen Clark



Students panning for gold.

Maureen Clark

Faces of BLM Alaska

Here are some of our leaders at BLM Alaska



Bud Cribley, Alaska State Director

Bud Cribley has served as the BLM Alaska State Director since November 2010. For nearly seven years, Bud has been the face of BLM Alaska and a hands-on director that effected a successful reorganization and focus across the agency's multiple use mission. He is the first state director to enable development in the National Petroleum Reserve in Alaska. His legacy has changed the face of BLM in Alaska.



Ted Murphy, Associate State Director

Ted came to Alaska in 2007, after serving as Solid Minerals Division Chief in the BLM Washington, D.C., office, where he helped implement the solid minerals portions of the Energy Policy Act of 2005. Ted started his federal career with the U.S. Geological Survey (USGS) as a mining engineer. For the next 23 years, he held several positions with increased responsibility to include mining engineer, supervisory mining engineer, branch of solid minerals chief, team lead, fluid and solid minerals resource advisor, assistant field manager – minerals and land, and acting field manager. Ted earned a bachelor's in mine engineering from Montana Tech.



Lesli Ellis-Wouters, Director of Communications

Lesli started her career as a print journalist for the U.S. Marine Corps. Over the next 23 years, she served as editor, press chief, media relations chief, internal operations chief, and finally a public affairs chief responsible for supervising five to 25 Marines depending on duty station and/or deployment. She also worked six years in marketing and recruiting for the Marine Corps. After her retirement from the Marines, she began at the BLM as a public affairs specialist for the Elko District in Nevada. During her four years in Elko, she also served on the National Wild Horse & Burro communication team, trained as a fire information officer, and spent a three-month detail in Cheyenne, WY as the External Affairs Chief at the Wyoming State Office.



Sara Longan, Executive Director, NSSI

Sara Longan, Executive Director, North Slope Science Initiative since January 2017, has 20 years of experience in the resource management, regulatory and environmental fields in government, private and academic settings. The past 13 years she worked for the State of Alaska, most recently as the Executive Director in the Office of Project Management & Permitting (OPMP). Sara earned a Master's degree in Environmental Toxicology from Oklahoma State University and holds a PhD in Public Health, researching issues related to Arctic development, Health, Safety & Environment.



Mark Miller, Deputy Director, NSSI

Mark Miller, Deputy Director, North Slope Science Initiative, has over 18 years of experience at the science-management interface as an ecologist, research scientist, and resource manager for BLM, USGS, and NPS in the southwestern U.S. He also worked for the U.S. Coast Guard in Alaska and for British Petroleum as a contractor conducting environmental studies on Alaska's North Slope. Mark has a Master's degree from New Mexico State University and a PhD in Physical Geography from the University of Colorado Boulder.



Beth Ipsen, Public Affairs Specialist, Alaska Fire Service

Beth Ipsen, Public Affairs Specialist, joined the BLM Alaska Fire Service in March 2016. Prio to this, she was a public information officer specializing in publications for the Alaska State Troopers from 2007-2016. She previously worked as managing editor for the *Arctic Sounder*, a weekly newspaper serving the Northwest Arctic and North Slope, and as a public safety and military reporter for the Fairbanks Daily News-Miner. That involved extensively covering the record-breaking 2004 fire season in Alaska. She has a Bachelor's degree in journalism.

frontiers *flashes*

What's not to love about summer in the Copper River basin?

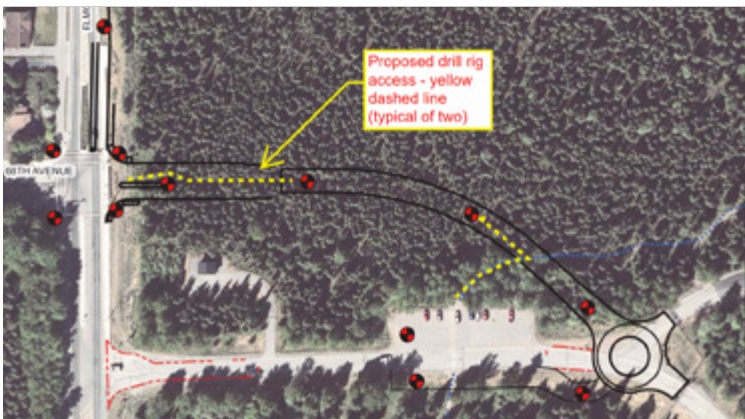


Raife Bowman

Student on the trek up to the Tolsona Mud Volcanoes. Mud and smiles, what a combination!

Glennallen Field Office staff and partners are providing youth and family events throughout the summer. What a great way to encourage youth to explore the great outdoors and learn about nature! They can also develop backpacking and hiking skills and practicing Leave-No-Trace techniques. These events take place within the Delta and Gulkana Wild and Scenic River corridors, Tangle Lakes Archaeological District, Wrangell St. Elias National Park and Preserve, and other federal- or state-managed areas along the Richardson and Denali highways in Alaska. Go to www.wise-org.edu

Entrance at Campbell Tract is on the move



Alaska DOT

Staff from the BLM Anchorage Field Office are working with partners on plans to relocate the BLM Campbell Tract main entrance road, "BLM Road." The 260-foot move will align the road entrance with an existing signaled intersection at 68th Avenue and Elmore Road in Anchorage. Plans also include a public bus stop. A recent informal open house brought community members to the BLM Campbell Creek Science Center to discuss the project with BLM Alaska staff and representatives from the Alaska Department of Transportation and Federal Highways Administration, leads on this project. Visit the BLM Road Realignment Project Website

Analyzing uses on the Iditarod National Historic Trail



Maureen Clark

2017 Iditarod Ceremonial Start ends at BLM's Campbell Tract and is a great place to watch the dog teams cruise by.

The BLM Anchorage Field Office is updating its Environmental Assessment of the Iditarod National Historic Trail. This analysis includes the effects of winter competitive events and commercial recreational uses of BLM-managed public lands and facilities along the Trail. It will also consider emerging issues (i.e., shorter winter-use seasons; use of BLM public shelter cabins; potential user conflicts; trash and human waste; and maintenance/improvements of the Trail and its public facilities) to accommodate continued use. Events authorized by BLM Special Recreation Permits include the Iditarod Trail Sled Dog Race and the Iron Dog (snowmachine) Race. The permits are for ten-year increments, with the most recent issued in 2008. The BLM-managed sections of the Trail affected by the permits are between the Alaska Range and Nikolai, and between Kaltag and Unalakleet. Go to the Iditarod National Historic Trail Environmental Assessment Webpage.

You can comment on the Ambler Road project

The State of Alaska's Ambler Road project would provide an all-season access road to promote exploration, development, and production of mineral resources in the Ambler mineral belt in the Kobuk Valley of northwest Alaska. The BLM is the lead for the Environmental Impact Statement for this project. The BLM recently extended the scoping period through Jan 31, 2018, for a total of 338 days of review. Public meetings will occur during the fall and early winter. Go to [Ambler Road Environmental Impact Statement \(EIS\) Project website](http://Ambler Road Environmental Impact Statement (EIS) Project website).

Alaska Standalone Pipeline Project

The BLM is cooperating with the U.S. Army Corps of Engineers in the analysis of the Alaska Stand Alone Pipeline Project (ASAP) – a proposed 733-mile natural gas pipeline from Prudhoe Bay on the Arctic Ocean to Point MacKenzie on Cook Inlet projected to provide 8,000 jobs. A Notice of Availability of the Draft Supplemental Environmental Impact Statement has been published in the Federal Register and is currently in a 45-day public comment period. For the most up-to-date schedule of meetings and locations, go to asapeis.com/publicmeetings.html.



Adventure

is out there

Adventure tips!

- Pack out all trash
- Don't forget safety gear
- Be Aware of fire starts
- Stay on designated roads, trails, and areas
- Have fun!