

# frontiers



**OUT**  
OF THE  
**OFFICE**



Beth Ipsen

# what's inside

- 4 Mud, Ash & Sweat
- 6 Fire Season Wrap-Up
- 7 12 Days in Galena
- 8 Re-Walking TAPS Corridor
- 9 Preserving History in Film
- 10 North for Science
- 12 A Copper River Summer
- 14 Destination BLM
- 15 Seismographs
- 16 Boy Scout Jamboree 2017
- 17 Meet Jeremy Chung
- 18 AIM to Reclaim
- 20 Summer Double Duty
- 21 Focusing on the littlest users of public lands
- 22 Frontiers Flashes



## Welcome to *frontiers!*

Welcome to Issue 127 of BLM Alaska *frontiers!* In this issue from recreation to firefighting, you can experience Alaska 'Out of the Office'. While our 2017 fire season was impacted by a wet and rainy summer for much of Alaska, our firefighters and staff volunteers went to help with the extreme fire season in the Lower 48. We hosted and partnered to bring youth and families from our communities on hikes and experiences on our public lands. From the 2017 National Boy Scout Jamboree to summer youth programs in the Copper River Basin or along the Dalton Highway, a teacher on the public lands, installing seismic monitors, reclaiming lands from mining, or teaching cruise ship staff about Alaska's flora, fauna, geology, and more – it was a busy summer Out of the Office. We hope you enjoy this issue.

Karen J. Laubenstein  
Editor

### CREDITS

#### Managing editor

Karen J. Laubenstein, (907) 271-3318  
[klaubens@blm.gov](mailto:klaubens@blm.gov)

#### Contributing writers

Maureen Clark, Eileen Frost, Lisa Gleason, Jim Hart, Beth Ipsen, Craig McCaa, Robben Taylor

#### Photographers

Lauren Anaknok, Audrey Bohl, Brian Bourdon, Lakota Burwell, Jeremy Chung, Maureen Clark, Abe Davis, Amanda Friendshuh, Eileen Frost, Lisa Gleason, Alicia Halla, Jim Hart, Beth Ipsen, Robert King, Kelly Lewis, Sara Longan, Tommy Matia, Craig McCaa, Travis McCabe, Carol Scott, Robben Taylor

Design/Illustration  
Vanessa Rathbun

BLM Alaska *frontiers* may contain copyrighted material that is used with permission of the copyright owner. Publication in a government document does not authorize any use or appropriation of this copyrighted material without consent of the owner, as it is not in the public domain. Any text or photo without attributed copyright may be reproduced in whole or in part as it is in the public domain. Please credit BLM Alaska.

**TO SUBSCRIBE** (free), please email the editor to receive a notice when Frontiers is online.

[BLM/AK/GI-94/005+1120+912](mailto:BLM/AK/GI-94/005+1120+912)



@BLMAlaska

# A Warm Welcome to Karen Mouritsen

## BLM Alaska Acting State Director



Jim Hart

We are pleased to introduce Karen. She joined BLM Alaska as Acting State Director on Sept. 5.

Before Alaska, Karen served as BLM Eastern States State Director with management responsibility for over 40 million acres of subsurface minerals and soils and 30,000 acres of surface estate east of the Mississippi River. Karen was also BLM Deputy Assistant Director for Energy, Minerals and Realty Management, helping to develop agency policies and regulations for the Bureau's energy and minerals programs while overseeing the budget and being responsive to audits. She was Acting BLM New Mexico State Director, Acting Associate District Manager for BLM Las Vegas and Medford, OR, Districts, and a BLM liaison to the Assistant Secretary for Land and Minerals Management. She also worked as the BLM Budget Officer, preparing BLM and DOI officials for congressional hearings, and testifying as a BLM witness.

Karen is a native of Dallas, Texas. She graduated from the University of Texas at Austin College of Engineering and earned her Juris Doctor degree at the University of Texas at Austin Law School.

# rules to play by

## Use it! Shoot it! Don't Leave it!

Whether people who target shoot or dump trash on public lands realize the wildland fire danger or hazards from their discarded trash, it's tempting to think nobody cares. Sometimes these actions inflict damage that won't heal for decades.

Don't assume other people will pick up your trash, or that dumping doesn't matter because the place is isolated. Pack out all trash, including shotgun shells or any targets.

### Shoot only at legitimate targets

Don't shoot at metal objects such as household appliances illegally dumped in shooting areas or rocks. This creates more waste and hazardous conditions for others and sparks may start a wildland fire.

Don't use trees or other natural objects, signs, kiosks, or buildings as targets.

Don't shoot across roads, trails, waterways, trailheads, parking areas, boat launches, or in campgrounds.

Most importantly, educate yourself. Know the regulations where you go. Take recreation skills and hunter safety classes. Always pack it in, pack it out. [Learn more with Leave No Trace](#)



Craig McCaa

Illegally dumped items and shell casing trash on Gilmore Trail.

# Mud, Ash & Sweat



Fire Familiarization Program firefighters (*left to right*) Randy Chindarak, Denton Hamby and Beth Ipsen pause over the Porcupine River while inventorying equipment on the Campbell River Fire in the Arctic National Wildlife Refuge on July 16.

**W**hile on my hands and knees picking nuggets of hot ash out of the dirt, I asked Randy Chindarak, who was a few steps away using the hoe end of a Pulaski to pick at the hot edge of ground, if he had ever been this dirty.

“Heck no. I’m a city boy,” he said.

But there we were, sometimes wrist-deep in soil, mixing hot coals with mud to cool spots after the Midnight Sun Interagency Hotshot Crew lit a controlled burn operation to create a protective buffer from a large wildfire that burned about a mile from a Native allotment. Randy, who worked in the BLM Alaska Fire Service warehouse and I, the BLM AFS public affairs specialist, plus Denton Hamby, an outdoor recreation planner at the BLM Glenallen Field Office, were hiking several miles a day, sifting through ash and swinging a Pulaski as part of the BLM AFS’s Fire Familiarization Program (FFP).

The purpose of the FFP is for non-fire BLM employees to gain firefighting experience and a better understanding of wildfire suppression by directly participating in fire operations. The idea is BLM employees, and BLM as a

whole, will benefit from the exposure and perspective of fire line experience. The program was created in Alaska in the 80s and was successful in forming a 20-person Type 2 team for fire assignments in Alaska and the Lower 48. Although the program stalled in the 90s, it was resurrected this year by BLM AFS Manager Kent Slaughter. Fire Specialist Abe Davis was tasked with recruiting, but only four people could commit to the spring training in May. Only three were available when the 14-day fire assignment came up on July 15.

Each of us gained a wealth of knowledge into the long, arduous duty of wildland firefighting whether it was mopping up hot spots, moving fire equipment, or walking through black, burnt ground interspersed with pockets of green trees and brush looking for smoking patches of ash. Mud, ash and sweat streaked our faces and the clothes we lived in for the week.

We worked the Campbell River Fire that crossed over the Canadian border on June 26, burning north of the Arctic Circle in the Arctic National Wildlife Refuge. We got an eyeful of some of the most beautiful country in the world

— *continued on page 5*



Lakota Burwell

FFP firefighters hike the indirect fire line to assist the Midnight Sun Interagency Hot shots with their burn operation. The burn created a pyrocumulus cloud that occurs when the rising column of hot air cools and condenses the moisture in the air.

*continued from page 4 —*

on our daily two to four mile hikes between tasks.

Each night, we sat around a campfire underneath a yellow tarp with other fire specialists. After eating a supper of a variety of macaroni and cheese, bean and cheese burritos, potatoes, carrots and an occasional steak, we took turns answering what we learned that day and what we'd like to learn the next day.

"I learned that you guys work long, hard hours," was Denton's answer at the end of the first full day on the fire.

We concentrated on the bottom third section of the burned area while emergency firefighters from the 20-person Type 2 Fort Yukon #2 crew mopped up the rest of the mile-long indirect fire line. Each day we went deeper and deeper into the woods until we had 300 feet successfully gridded and rid of any hot spots.



Beth Ipsen

FFP lead Abe Davis (*top middle*) talks while (*clockwise*) Incident Commander in training Brita West; FFP firefighter Randy Chindarak; FFP firefighter Denton Hamby; Fire Specialist and boat operator Brian Pitts; Fire Specialist Lakota Burwell; and Fire Specialist Kelly Lewis listen during a daily debriefing after dinner.



Kelly Lewis

"For five people, you got a lot of work done," Abe told us at the close of what ended up being an eight-day assignment. "Our name is tagged to that piece of ground, and I feel good about it."

— *Beth Ipsen*  
Alaska Fire Service  
Public Affairs Specialist



Beth Ipsen

(*above left*) Beth Ipsen and Randy Chindarak, sift through dirt in search of hot coals while mopping up a burn operation.

(*above right*) FFP firefighter Denton Hamby, who normally works as an outdoor recreation planner at the Glennallen Field Office, looks for hot spots.

**For more information about the Fire Familiarization Program, email Abe Davis at [r1davis@blm.gov](mailto:r1davis@blm.gov) or John Lyons at [jrylions@blm.gov](mailto:jrylions@blm.gov).**

# Alaska 2017 Fire Season Wrap-Up

For the second year in a row, Alaska registered a lower-than-average fire season for number of acres burned. As of Sept. 26, 358 fires burned an estimated 653,000 acres across Alaska – below the historical annual average of 1.2 million acres. Twenty-eight fires were still listed as active with small fires starting on a weekly basis due to human activity, evidence that fuels in Alaska are still dry enough to burn as fall weather dries out dead and decaying fuels.

Despite the slower year, the fire service took advantage of new technology and used small, unmanned aerial systems (UAS) for fire support, infrared heat detection, and mapping on many fires. Statewide, BLM has 17 of these small quadcopters, including nine allocated to BLM Alaska Fire Service. BLM AFS and the Alaska Division of Forestry (DOF), who also participated in BLM's UAS

training program, pioneered small UAS in wildland firefighting both in Alaska and nationwide. Combined, BLM Alaska and DOF flew the small quadcopter 880 times for a total of 9,194 minutes in both Alaska and the Lower 48. A majority of the flights were in support of fires (5,804 minutes during 571 flights). In addition to fires, BLM Alaska pilots flew the drones for wildlife habitat and resource site inventory in Alaska and even helped with response to Hurricane Harvey in Texas!

Last summer's hotbed for fire activity in northeastern part of Alaska experienced persistently dry and hot weather. Two-thirds of the acres burned are within the BLM Alaska Fire Service's Upper Yukon Zone from Chicken to the North Slope. Because many fires were burning in Limited Management Option areas and not threatening any structures or known sites of value, the fires were

left to burn for ecological benefits. Some areas required firefighting action to protect values such as cabins and Native allotments.

After Alaska's fire season tapered off, firefighters helped with the catastrophic fire season in the Western U.S. Twenty-three 20-person Type 2 Emergency Firefighter crews flew by jetloads to help with Montana, Oregon and California fires. As many as 219 firefighting personnel from BLM Alaska were on fire assignment in the Lower 48 filling roles from firefighter to timekeeper, as the Lower 48 came close to a near-record fire season with 8.4 million acres burned by Sept. 26.

— Beth Ipsen  
Alaska Fire Service  
Public Affairs Specialist



About 80 Type 2 firefighters, including three 20-person EFF crews from Selawik, Noorvik and Upper Kalskag, board a jet bound for Missoula, Montana on Aug. 11.



Type 2 Emergency Firefighter crew from Nulato works on securing line on the Caribou Fire in Montana near the Canadian border on Sept. 10. The crew is among 23 EFF crews that worked on fires in the Lower 48.

Beth Ipsen

Travis McCabe

# 12 Days in Galena



(left to right) BLM AFS carpenters Al Schultz and Bronson Singh; FWS employees Shane Miller, Kody Goodge, and Jim Donaldson; BLM AFS carpenter Jeffrey Perkins; FWS employees Kyle Goodge; Joe Whatley, and Steven Howerton.

The sun had already been up for several hours along the Yukon River in the remote village of Galena by the time the sound of hammers and saws filled the air at 6 a.m. in June. It's hard to work from sun-up to sun-down in the land of the Midnight Sun, as six U.S. Fish and Wildlife Service (FWS) maintenance workers on a detail from the Lower 48 discovered. They traveled a long way to Alaska, but were rewarded with perfect working conditions – long, sunny days, 70-degree weather and a light breeze that kept the notoriously pesky mosquitos away.

The six were a part of a FWS Maintenance Action Team (MAT) assisting three BLM Alaska carpenters for 12 days on initial construction of a 2,900-square foot dining hall. They worked long hours putting footings into the ground, decking, and readying walls for the next crew to finish the building's shell. The new construction replaced a portable pre-fabricated Atco building used prior to the BLM acquiring it in the 1980s. The project was in the planning stages for several years, but ran into roadblocks associated with contracting costs due to Galena's location off the road system. This new facility will support

wildland firefighters and summer field activities of BLM Alaska and FWS employees. The construction project is saving an estimated \$1.2 million through this partnership between the two agencies.

The FWS employees hail from wildlife refuges in Pennsylvania, the Midwest and Oklahoma. Young brothers Kody and Kyle Goodge, from Pennsylvania's Erie National Wildlife Refuge and Iowa's Union Slough National Wildlife Refuge, were the only FWS employees that knew each other before this detail in Galena.

"I have a fair background in carpentry, but I'm working with people with different backgrounds," Kody said. "It's helping me grow."

Steven Howerton, a maintenance worker and mechanic for the DeSoto National Wildlife Refuge and nearby Boyer Chute National Wildlife Refuge in Iowa and Nebraska, said most MAT assignments are within FWS and the same region, making the Alaska detail special. Steve normally works on tractors, vehicles, plumbing, electrical, or "whatever needs to be done." He adds, "Occasionally we get to do cool stuff like this."



(top) BLM AFS carpenter Jeffrey Perkins holds things in place while FWS employee Joe Whaley of Cypress Creek National Wildlife Refuge in Illinois nails beams together. (above) BLM AFS carpenter Al Schultz checks the construction plans in Galena.

The team, led by BLM Alaska Fire Service carpenter Al Schultz, had most of the walls up by the end of the two weeks. The next MAT team of eight FWS workers and three BLM carpenters picked up where they left off and finished the walls, installed windows, and constructed the roof to make sure the building was enclosed for the winter. Next year, BLM AFS management plans to install electrical and plumbing systems and finish the dining facility.

"We'll request another MAT team to come up," BLM AFS Logistics Branch Chief Bo Harris said. "Some of the people who have already been here have experience in electrical and plumbing, and were very interested in coming back."

— Beth Ipsen  
Alaska Fire Service  
Public Affairs Specialist

# Good Friends, Good Food, 800 miles and 20 Years

In 1997, Fairbanks writer Ned Rozell hiked the entire 800-mile trans-Alaska pipeline with his dog. His resulting book, *Walking my Dog Jane*, examined the impact of oil development on Alaska by describing the people and land along the pipeline route, which includes hundreds of miles of BLM-managed public lands.

When Rozell decided to repeat his walk this past summer with his new dog Cora, word quickly reached BLM volunteer Audrey Bohl. For the last several summers, Bohl staffed BLM's Yukon Crossing Visitor Contact Station, a cozy cabin next to the half-mile bridge that carries the pipeline and Dalton Highway over the Yukon River. It is one of only four vehicle-carrying bridges across the Yukon – the longest river in Alaska and the Yukon Territory. Bohl read Rozell's book and was fascinated by one chapter where Rozell spent an evening with her predecessors, BLM volunteers Bob and Thelma Bowser.

In the chapter, Rozell talked about arriving at the contact station and meeting the BLM volunteers, a couple, and how he was invited back to their house for dinner. Bohl said, "That's my house now! So I really got a kick out of him describing my home."

"I never thought I'd get a chance to meet him." Bohl said. "When I heard that he was coming by, I said 'Spread the word -- he has quite a network of friends -- that he's invited for dinner.'"

Her dinner invitation did indeed reach Rozell, but just to make sure, Bohl made a big 'welcome' sign, remembering from his book that

Rozell had often received second billing to his dog on the welcome signs he encountered during his previous walk.

Rozell confirmed the slights with a smile during a rest break this past summer in the community of Wiseman. "I remember getting a bunch of cookies that someone had taped to a sign," he said. "It read, 'For Jane and What's-His-Name.'" Bohl made sure to put Rozell's name before Cora's. "I need to thank her for that," Rozell said, laughing.

For the dinner, Bohl and fellow BLM volunteers Ray and Linda Panter prepared a sumptuous feast at Bohl's BLM cabin a few miles up the Dalton Highway. The menu included chicken parmesan, homemade Italian bread, pasta salad, and artichoke squares.

Rozell said he and Cora enjoyed a pleasant evening with his BLM hosts,



Craig McCaa

Rozell relaxes with Cora in the Brooks Range mining community of Wiseman.

just as he had 20 years earlier. In mid-August, he completed his second 800-mile walk at the pipeline's start at Prudhoe Bay. This time, older and wiser, he finished well before the first snow.

— Craig McCaa,  
Public Affairs Specialist  
Fairbanks District Office



Audrey Bohl

Rozell poses by Bohl's welcome sign at the Yukon Crossing Visitor Contact Station. For the next 230 miles of his walk, Rozell would cross public lands in the Central Yukon Field Office's Dalton Highway Management Unit.



# Aerial film canisters and a jumbo-jet mechanic ... at BLM?

Nearly half-century old film is carefully laid out on a light table, each roll painstakingly notated with heading and height “above mean terrain” by a person whose name is lost to history. The images are aerial photos of the route the Trans-Alaska Pipeline would eventually follow.

This roll was shot in 1974, the year before the first piece of pipe was put into place. The roll is scheduled to be digitized and release to the public soon, and that requires someone gathering the information contained in the film and putting it into a document (a shot catalog, of sorts) to be included with the canister.

It’s important work, and for the past three months it’s been volunteer Bruce Hendricks’ job.

Bruce is a volunteer with the BLM from the Alaska Vocational Rehabilitation program. A former mechanic on heavy cargo aircraft, multiple myeloma (a cancer of the plasma cells in the bone marrow) made his bones brittle and his former occupation impossible.

“I couldn’t do it physically without breaking a bone,” Hendricks explained. “[Mechanic work] was becoming really hazardous.”

He took time off work for cancer treatment, then he went into the state’s vocational rehabilitation program to get some training.

As a volunteer, it’s Bruce’s job to get the film ready to send in. While it’s not a Boeing 747 jumbo jet, to Bruce it’s still meaningful.

“It means a lot just having somewhere to go every day and actually doing something—it gives you a sense of purpose,” Hendricks said. “You kind of lose a little bit when you’re waiting for doctor’s appointments—this [volunteer work] is sharpening me.”

— Jim Hart  
Public Affairs Specialist  
Alaska State Office



A film canister from 1974 stands in the foreground as BLM volunteer Bruce Hendricks looks through the film, making notes on a shot catalog.

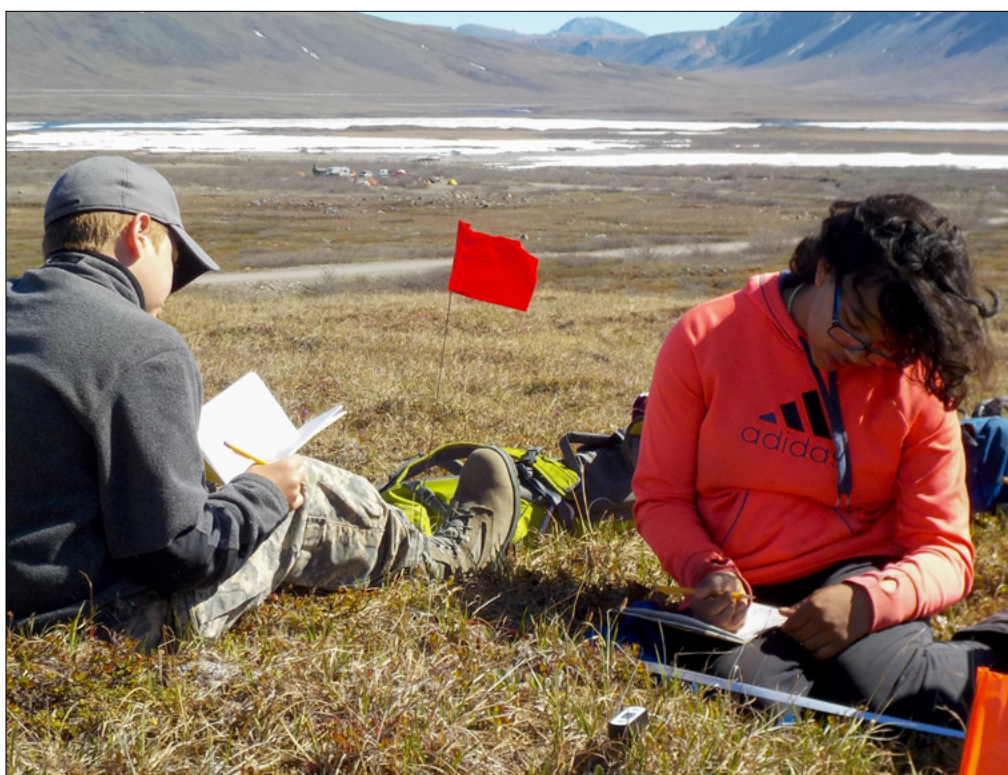


Hundreds of rolls of aerial film from a special refrigerated room in the BLM Alaska State Office.



Carol Scott

# North for Science



Carol Scott

(top) Students with the North for Science program pose for a group photo at the Arctic Interagency Visitor Center in Coldfoot. (above) Hunter Baise (left) and Willow Torres (right) record data on their tundra transect above the BLM campground at Galbraith Lake during their North for Science field trip to the Dalton Highway.

In June, BLM Alaska was again a sponsor for the North for Science program, which introduces seventh- and eighth-graders to the fields of scientific research and natural resource management during a week-long trip on the Dalton Highway. The National Park Service, U.S. Fish and Wildlife Service and Alaska Songbird Institute also sponsored the program. This year North for Science! enrolled seven students from Fairbanks, North Pole, Healy, Tanana and Kaktovik. The group traveled by van from Fairbanks to Coldfoot, where they established camp at BLM's Marion Creek Campground. After receiving bear safety training from the Central Yukon Field Office's Jason Oles, the group enjoyed a scavenger hunt hosted by the staff of the Arctic Interagency Visitor Center. Other activities included a visit to a snowshoe hare study site, a waterfall hike, boreal forest and tundra vegetation transects, bird surveys, and a tour of the Toolik Field Station.

— Craig McCaa,  
Public Affairs Specialist  
Fairbanks District Office



Carol Scott



Carol Scott



Carol Scott

(top) Students with the North for Science program write in their science notebooks — data entry and reflections on learning — while camping at Galbraith Lake. (left) Outdoor recreation planner Jason Oles shows students a portable electric fence for bear deterrence during bear safety training at the Arctic Interagency Visitor Center in Coldfoot. (right) Jason Oles (left) and Kelly Egger (center) lead a hike to the waterfall on Marion Creek. (bottom) Jason Oles pretends he is a charging bear as a student deploys a practice (inert) can of bear spray during bear safety training.



Carol Scott

Carol Scott



Copper River Stewards helping with Canada Geese nest island maintenance.

# Caddisflies and Canoes to Muddy Volcanoes and Archaeology, Too! Having Fun in the Copper River watershed

This past summer, the BLM Glennallen Field Office staff helped to host 12 events involving over 230 youth throughout the Copper River watershed. The field office partners annually with many different agencies, local nonprofits, native villages, schools, and the public to host outdoor youth events.

Most events involved partnering with the Wrangell Institute for Science Environment (WISE) — a local nonprofit organization that provides science and environmental education to all age groups year-round. This past summer, BLM and WISE hosted eight single-

day youth hikes varying in difficulty and location. The youths hiked above waterfalls, to mud volcanoes, into the Tangle Lakes Archaeological District, and up small mountains with 360-degree views of the beautiful Copper River Basin.

BLM, WISE, and other partners also provided multi-day/overnight camping opportunities. With assistance from the BLM Campbell Creek Science Center, the BLM Glennallen Field Office staff presented at the annual

— continued on page 13



BLM Archaeologist John Jangala teaches students on a hike about the historical wonders of the Tangle Lakes Archaeological District.



Aquatic Ecology campers experiencing canoe recreation and water safety on Silver Lake in Wrangell-St. Elias National Park.



Tommy Maitia, WISE.

The Geology Camp crew on the Root Glacier.

*continued from page 12 —*

Youth Environmental Summit (YES) hosted by the Native Village of Gakona. They taught students about macroinvertebrates in their local streams and creeks.

The Aquatic Ecology Camp was a three-day trip where students learned about aquatic life and developed water recreation skills.

Older youth participated in a four-day Geology Camp, backpacking to Kennicott, an abandoned mining town within Wrangell St. Elias National Park and Preserve. The campers spent multiple nights at the base of Root Glacier, and got a hands-on experience exploring the glacier, along with a trained guide.

Ten lucky high school students selected from the Copper River Basin and Cordova area participated in the annual Copper River Stewardship Project, a ten-day trip to learn and explore the diversity of the many communities and

ecosystems within the Copper River watershed. The 10 stewards on this year's trip experienced a multi-day canoe trip to a camp near the Gulf of Alaska for Dusky Canadian Geese, two 14-hour ferry rides, learned about the Exxon Valdez Oil Spill in Prince William Sound and completed a multi-day float down the Gulkana Wild and Scenic River.

With limited staff and summer interns, the BLM relies heavily on its local partners, including WISE, the National Park Service, the Native Village of Gakona, Wrangell Mountain Center, Prince William Sound Science Center, the Copper River Watershed Project, and more to host these great events. As for the participants, they can't wait for next summer!

*— Robben Taylor  
Public Affairs Specialist  
Glennallen Field Office*



Amanda Friendshuh

Kids getting muddy while learning about the Tolsona Mud Volcanoes.



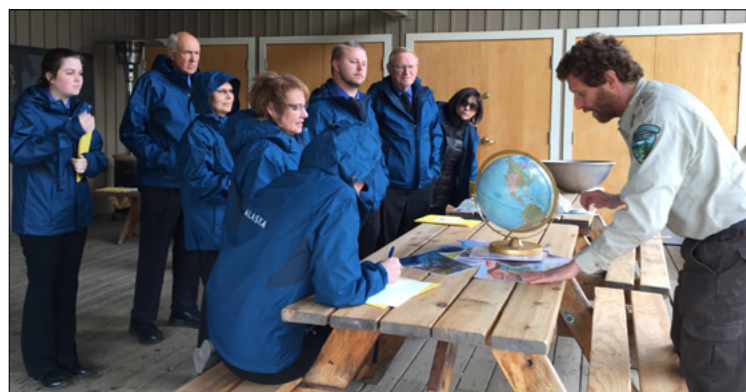
Amanda Friendshuh

BLM Campbell Creek Science Center employee Molly Larmie teaches students about macroinvertebrates in Willow Creek.

# Cruise Ship Guides' Itinerary: Destination BLM



Environmental education coordinator Luise Woelflein provided information about Alaska birds.



Science instructor Brad Fidel provided the tour guides with a lesson in Alaska geology.

When Holland America Princess, Alaska's largest tour company was looking for a new Alaska natural history training opportunity for its rail tour guides, it turned to the BLM Campbell Creek Science Center.

Prior to the start of the 2017 Alaska tourism season, the Science Center's staff of environmental educators spent a half day with 50 Holland America Princess employees who staff the company's rail cars traveling between the port of Seward and Denali National Park. The employees varied greatly in age, their knowledge of Alaska, and their experience in leading tours. For the staff of the Science Center, more familiar with providing environmental education to school-aged children, the opportunity to work with Holland America Princess provided a creative challenge to address the needs of a new audience.

The Science Center staff designed the training so the tour guides moved through a series of stations focused on different natural history topics, including Alaska birds, fish, mammals, geology, and plants found along the route of the rail tours. As they provided information, each presenter used interpretive techniques that the tour guides could use themselves to help tourists understand and connect with the landscape they were seeing. These techniques included the use of an overall theme for the program, with a subtheme for each station. Each presenter used storytelling techniques and drew connections between their topic area and the topics covered at other stations. They also provided lists of additional resources, so the guides could learn more on their own.

— continued on page 15



Holland America Princess rail tour guides gathered for training at the Campbell Creek Science Center.



Science instructor Jim Sumner taught about Alaska plants.

*continued from page 14 —*

“Our guides are always seeking more information to share with visitors and the Science Center really provided that for us,” said Matt Stevens, manager of guest services for the company’s Alaska/Yukon rail division. “Even our returning rail guides learned new information from the training and got new ideas about engaging our guests.”

The Holland America Princess employees provided high marks and favorable comments in their evaluations of the training:

“There was so much knowledge shared in such a short amount of time! What an amazing experience! Everyone did a wonderful job with their presentations!”

“All of the presenters were so knowledgeable and engaging.”

“The best training I’ve had on Alaska.”

For the Science Center staff, one especially satisfying aspect of working with the rail guides was the knowledge that what they taught would be shared with more than 150,000 visitors.

“The Holland America Princess guides are interacting with visitors from all over the world,” said Science Center Manager Nancy Patterson. “By training them we’re amplifying the message of why public lands matter.”

— Maureen Clark  
Anchorage District Office  
Public Affairs Specialist

# Alaska All Cracked Up and We’re Watching

Alaska is the most seismically active state with many large and moderate earthquakes. This is why the nonprofit Incorporated Research Institutes for Seismology is installing a network of 275 temporary seismic monitoring stations throughout Alaska, including some areas never before monitored for seismic activity. The project is part of the National Science Foundation-sponsored EarthScope Transportable Array Project to map the structure of the earth beneath North America.

The BLM Anchorage District will host 16 temporary stations on BLM-managed lands within the District for the next two years. Before installing in Alaska, transportable arrays across the Lower 48 states recorded data that helped further scientists’ understanding of the active tectonics and geologic history of the North American continent.

During the 2017 field season, Anchorage Field Office Realty Specialist Brian Bourdon observed two installations of the seismic stations near the western Alaska villages of Sleetmute and Unalakleet. Bourdon had also worked on the Environmental Assessment for the project, which looked at resource impacts, including caribou and bird migration and subsistence activities.

“We looked at all the resources and there were no major concerns,” Bourdon explained.

Bourdon flew by helicopter with a team of field engineers to the two remote sites to install seismometers, battery systems, data collection systems, and enclosures for the equipment. Satellite transmits the collected data to the EarthScope data center in San Diego. After two years of data collection, although some monitors may remain to supplement existing earthquake monitoring systems, most of the state’s monitors will be removed.



Brian Bourdon

Seismic monitors installed near Sleetmute.

“It’s gratifying to know that this [project] is for the public and can be used by scientists around the world,” said Bourdon. “We’re a hotspot for earthquakes.”

Learn more about the Earthscope project at <http://www.usarray.org/alaska>

— Maureen Clark  
Anchorage District Office  
Public Affairs Specialist

# Boy Scout Jamboree 2017

## Artifacts and Fossils with Alaska Archaeologist Robert King



Robert King

Scouts visiting the BLM tent along the Conservation Trail at the National Boy Scout Jamboree last July were introduced to archaeology and paleontology in novel and fun ways.

As people circulated through the BLM tent, they first encountered archaeology and paleontology and Robert King, BLM Alaska's Archaeologist and a veteran of five earlier jamborees. King's area was centered around "What is the difference between archaeology and paleontology?"

With more than half not knowing the difference, King gave Scouts a 2-4 minute interactive educational answer to this question. He pointed out the relevance of both archaeology and paleontology for understanding today's world and how critical it is to protect our archaeological and paleontological sites.

To do this quickly, King used an array of eye-catching artifacts and fossils from different times in prehistory and history. These items ranged from: replica prehistoric paleoindian stone tools used 10,000 years ago to 200-year-old ivory and bone prehistoric artifacts from Alaska; to an unusual fork, can, and can opener from over 100 years ago; to items as recent as 40 to-50-year-old Coke cans and bottles. He emphasized that all artifacts (human-made items) were created by past people and reflect both their culture and technology and these artifacts are worth knowing and saving. Archaeologists study artifacts.

For paleontology, folks could handle a fascinating replica of 280-million-year old pre-dinosaur trackways from New Mexico, real 150-million-plus year-old dinosaur bones from Utah, and a 70-million-year-old stone slab with plant fossils from Alaska. The latter included not only modern-like plants found in Alaska today, but

also extinct plants from when dinosaurs roamed far-off Alaska. Paleontologists study fossils.

Many Scouts took photos and asked questions. Others shared their experiences. Many proved what they had learned by playing a game to "Show what you Know." They sorted 24 picture cards that pertained to either archaeology or paleontology. In this way, they learned more about the wide array of both archaeological and paleontological sites not only on BLM-managed public lands, but around the world. Particularly gratifying for King were the Scouts who demonstrated special interest and stayed on ask King questions, such as how to pursue a career in archaeology or paleontology. The exhibit also included information on where Scouts could learn more about archaeology at the jamboree and earn the archaeology merit badge.

— Robert King  
Alaska State Office  
Archaeologist



(at top) Boy Scout Jamboree crowd. (above) BLM Archaeologist Robert King talking to scouts at BLM's booth.

Robert King



# From the Kuskokwim River to BLM Alaska: Meet Jeremy Chung

Imagine growing up in Alaska at the mouth of the remote Kuskokwim River, 40 miles inland from the Bering Sea and 400 air miles from Anchorage. This remote community of Bethel is where Jeremy Chung was born and raised. His Y'upik mom and Korean dad taught him traditions from both cultures.

As an Alaska Native Science and Engineering Program (ANSEP) student, Jeremy at 19, made a tremendous difference for Internet Technology (IT) while working with BLM Alaska last summer on ANSEP's Summer Bridge program. His boss, Supervisory IT Specialist, Neal Therrien hired Jeremy to help with planned updates to the agency's computers and laptops. Neal said in addition to that assignment, "Jeremy [completed] software installs and worked troubleshooting computers; we taught him cable maintenance, and he was able to image a computer before he left."

ANSEP started in 1995 as a college scholarship program with just one student. Today ANSEP has evolved into an educational model that begins with sixth grade students and boasts more than 400 Alaska Native science and engineering college graduates. ANSEP's objective is to effect a systemic change in the hiring patterns of Alaska Natives in science and engineering professions. Ninety-five percent of students who participate in the ANSEP Summer Bridge successfully transition to science or engineering baccalaureate degree programs.

Jeremy joined ANSEP during his senior year in high school. "My teachers encouraged me to join ANSEP to get more credits for college. If I got accepted to ANSEP, it would pay for some classes. So far, I have earned six college credits. I'm really good at STEM subjects -- science, technology, engineering and math." Then he grins, "I love math!"

Talking about his Summer Bridge program, Jeremy admits, "The 10 weeks felt like just a minute!" His Summer Bridge graduation ceremony was Aug. 4. Jeremy is starting his first year of college at the University of Alaska Anchorage, aiming for a degree in computer engineering. He wants to achieve straight A's in college. He's off to a great start.

— Eileen Frost  
Public Affairs Specialist (On Detail)  
Alaska State Office



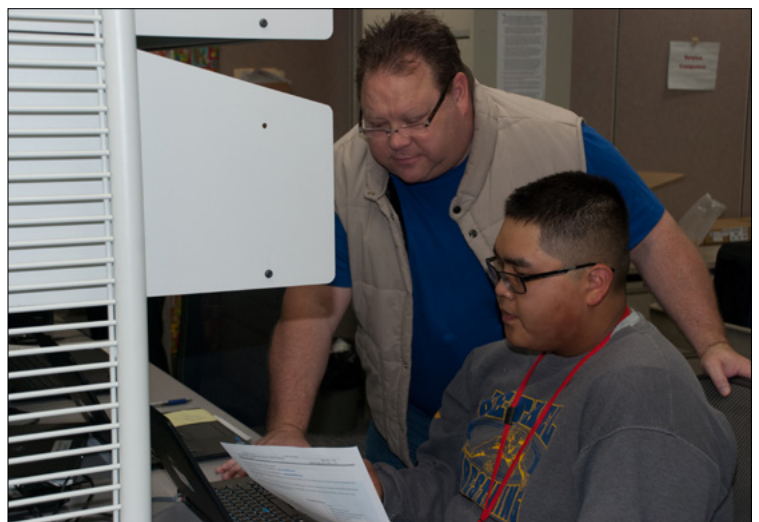
Jeremy enjoys camping with his fellow ANSEP students.

Jeremy Chung



Jeremy reviews emails while at BLM Alaska.

Eileen Frost



Jeremy working on projects with BLM IT Specialist Neil Therrien.

Eileen Frost



# AIM to Reclaim!

The first major gold discovery in east-central Alaska was in 1886. Over the next 131 years, miners have continuously mined the area's streams and riverbeds, causing disturbances to the natural environment. Although Congress later established federal regulations to minimize surface impacts and restore habitats, many stretches of the watershed were never fully reclaimed.

BLM Alaska uses its Assessment, Inventory and Monitoring (AIM) protocols to evaluate reclamation success of impacted streams and uplands. Using AIM protocols ensures habitat and function are recovering after mining activities are over.

In 2014 and 2015, BLM Alaska sent its first AIM crews to benchmark aquatic life on wild and scenic rivers along the historically mined Fortymile River region. In 2016, the first terrestrial crews consisting of BLM Alaska employees and the local university's Alaska Center for Conservation Science staffers established AIM plots near those previously established aquatic sites. The goal of the three-year pilot (2015-2018) is to collect and evaluate measurable baseline data and use it to establish benchmarks and evaluate reclamation efforts in placer-mined streams.

This year, Alaska terrestrial AIM crews completed their second year of data collection in the Fortymile River area. Over ten days, two crews lived at the Chicken field facility and worked side-by-side to complete studies at 19 sites. Each crew included, at a minimum, a soils scientist, botanist, and field team manager. The two crews quickly covered the numerous sites, flying over 1,962.5 acres of land by helicopter. A single "triple-threat team member" rounded out the crews by carrying out the tasks of flight manager, camp supervisor, and chef.

Each day began bright and early, with both crews enjoying a hot, filling breakfast and preparing packed lunches for the field. Weather permitting, the teams loaded the Bell 206L4 helicopters and departed for assignments and locations. The field team managers and botanists laid out and inventoried the initial site transects, while the soils scientists dug into their missions. Teams worked in parallel to complete the plant species inventories and soil analyses. Once they gathered the required data, cleaned up their sites, and returned to camp, both crews came together for the evening meal. Camp camaraderie blossomed with hot mugs of *petasites frigidus* (sweet-caltsfoot) tea and botanist jokes about an unnamed species

termed "*plantus vegetalis*" making the rounds each night at the dinner table.

As the days wound down, work wrapped up with data recording tasks, final plant identification and storage and coordination of the next day's site visits. On the final day as the late sun set and the sounds of tents zipping filled the air, Alaska's AIM teams finished setting the foundation for future reclamation success. BLM staff will use AIM outcomes to scientifically determine, publish and distribute reclamation best management practices for miners.

— Lisa Gleason  
Public Affairs Specialist  
Alaska State Office

Previous Page: (top left) BLM Alaska wildlife biologist Ruth Gronquist and intern Jocelyn Munoz work to set a transect on an AIM plot in the Fortymile River area. (top right) Soils scientist Lorene Lynn carries equipment to AIM dig site. (center) BLM Alaska soils scientist Eric Geisler compares soil color against a hue card to determine the closest match. (bottom right) University of Alaska research technician Bonnie Bernard works to identify plants on an AIM plot in the Fortymile River area. (bottom left) University of Alaska researcher Anjanette Steer enters data on a tablet for the day's studies.

(below) A Bell 206L4 helicopter takes off with AIM crews for stream beds in the Fortymile River area.

All photos by Lisa Gleason



Lisa Gleason

# Summer Double Duty

Last summer, Master Sgt. James Whitlock, a Mining Inspection and Enforcement Coordinator with BLM Alaska, fulfilled his annual two-week Air National Guard commitment providing humanitarian-civic assistance in Riga, Latvia. In addition to his work with the BLM, James serves with the Air National Guard's 176th Civil Engineer Squadron.

Along with 34 additional Alaska Airmen, James worked as a structural supervisor during the repair and upgrade of the 53-year old "Mēs esam līdzās" Children's Rehabilitation Center. Working alongside Latvian military and contractors, he contributed to a project that included electrical work, plumbing, structural improvements such as windows and ceilings, as well as heating, ventilation and air conditioning installation.

After returning to Alaska, James reflected, "This project was a great opportunity for the 176th Civil Engineers to expand their skills in their respective trades and gave new Airmen an opportunity to see how our Guard unit operates as a team to accomplish a mission on time and with the highest quality product."

Like all federal agencies, the BLM allows reserve uniformed service members to spend up to 120 hours fulfilling their military obligations each fiscal year. Employees, supervisors and human resources staff across the board express that while it is never easy to manage a vacancy when employees leave for their annual two-week training commitments, the benefits that the BLM gains from the service member's experience far outweighs the temporary inconveniences. The diversity, team spirit, and sense of duty brought back to the



Alicia Halla, Air National Guard



Alicia Halla, Air National Guard



Alicia Halla, Air National Guard

workplace brings value to the entire organization.

The Guard's humanitarian missions during annual training help members hone technical skills while helping the local community which, in this case, improved conditions for children in need of care. The Republic of Latvia has been a partner in the National Guard Bureau State Partnership Program for more than two decades.

"I really enjoyed building relationships with our Latvian counterparts and being part of a

team that is representing not only Alaska's 176th Wing, but the United States," James said.

— Lisa Gleason  
Public Affairs Specialist  
Alaska State Office

(top) Alaska Air Guardsmen from the 176th CES and support units repaired a children's rehabilitation center project working alongside Latvian military and contractors to upgrade the aging building. (above left) Air National Guard Master Sgt. James Whitlock, prepares a sill for installation of upgraded windows. (above right) Master Sgt. Whitlock, installs a window at a children's facility.

# Focusing on the littlest users of public lands



Maureen Clark

Leah Babcock, 2017 Teacher on the Public Lands.

It's a weekday summer morning on a playing field at the BLM Campbell Creek Science Center and in the middle of a lively swirl of toddlers, infants, and their parents is Leah Babcock, the Science Center's 2017 Teacher on the Public Lands.

To the untrained eye, the scene may look somewhat chaotic as about two dozen children run from one activity to the next, digging in the sandbox, collecting spruce cones, and interacting with each other.

"For me it's fascinating," said Babcock, a pre-school teacher at Denali Elementary School in Anchorage. "I think little kids are like little psychological studies walking around. They are so open about what they are thinking and feeling. You can really see what's going on. You don't have to dig too deep. They are showing you who they are every time they talk and play. And they are unpredictable, for better or worse."

That fascination with little children made Babcock an ideal fit as the Campbell Creek Science Center's Teacher on the Public Lands.

Babcock is helping the Science Center expand its offerings for very young children. Central to that, she is developing a suite of curriculum to turn the popular Moms, Pops, and Tots program from a summer-only offering to a year-round program. Mom's, Pops, and Tots offers an opportunity for parents, infants, and toddlers to explore the natural world outdoors. Babcock is also outlining a strategic plan to help the Science Center reach more young children by working directly with Anchorage-area preschools.

It was while she was working as a third-grade teacher that Babcock began to realize the importance of

early intervention and of helping children develop fundamental skills well before they begin school. "That's where the power is. That's where you can really build a foundation. Getting to children early makes all the difference," said Babcock, who made the switch to teaching pre-school four years ago. Her goal at Denali Elementary is to develop a program that will instill a lifelong desire to spend time outdoors.

The BLM Teachers on the Public Lands program gives teachers the opportunity to work as interns on public lands during their summer breaks. It began in 2014 through a BLM partnership with the University of Colorado – Denver. In addition to time spent at BLM-managed sites, the teachers have the opportunity to earn continuing education credit and to share ideas with other teachers participating in the program.

"The Teacher on the Public Lands program has been a great help in developing our education programs and in forging relationships with teachers on a completely different level," said Luise Woelflein, environmental education coordinator at the Science Center. "Leah has brought such wonderful energy and insight and she's given us much greater confidence as we expand our offerings for very young children."

Adds Science Center Manager Nancy Patterson, "We want people of all ages and backgrounds to connect with nature at the BLM Campbell Creek Science Center. In her summer with us, Leah has played an important part in making that happen."

— Maureen Clark  
Anchorage District Office  
Public Affairs Specialist



Maureen Clark

Lisa with some little public land users.

# frontiers *flashes*

## Oil and Gas Lease Sale

The National Petroleum Reserve in Alaska 2017 Oil and Gas Lease Sale will be Dec. 6 at 1 p.m. (Alaska Standard Time). The sale will include all available 900 tracts (covering 10.3 million acres). Opening of sealed bids will occur via livestream at [www.blm.gov/live](http://www.blm.gov/live), rather than in a public gathering. This will be the first time BLM Alaska will livestream the opening of the sealed bids. A Detailed Statement of Sale, including a description of the offered tracts, is available on the BLM Alaska website, [www.blm.gov/alaska](http://www.blm.gov/alaska).

## Going, going, gone... Anchorage Field Office

The old Anchorage Field Office on the BLM Campbell Tract was demolished in early September.



Constructed in 1965, the building was BLM Alaska's Integrated Fire Control Station. It originally included living quarters and an administrative office for wildland firefighting operations. The original building was built with materials containing asbestos, which was standard practice at the time of construction, but which ultimately made repair, maintenance, and remodeling of this building costly and difficult. Before demolition, the asbestos was removed.

The BLM expects a slightly smaller replacement building – 8,800 square feet compared to the original's 9,500 square feet – to be completed by late 2018. That replacement design and construction will be to Leadership in Energy and Environmental Design Silver standards. In addition to removing the significant asbestos liability, the new construction will improve security and accessibility at the Anchorage Field Office, reduce energy use, and modernize the employee environment.



## New and Improved Public Information Center (Public Room) opened at the Fairbanks District Office



Last summer, a newly relocated and updated Public Information Center opened at the Fairbanks District Office. The new design and location not only is more secure, but is giving the District a new focus on its customer service. It is showcasing artwork by BLM artists in residence. Staffing the information center/public room are Lisa Hedman and Scott Hawkins (Legal Instrument Examiners). Now you can visit either the BLM Fairbanks or Anchorage Public Information Centers (Public Rooms) to get brochures, maps, check out case files, informational books and reference materials, conveyance documents, survey information and plats, surveys, aperture cards with copies of old patents/certificates/surveys not available online, executive orders, and public land orders. Or visit the [Alaska Public Room](http://Alaska Public Room) online.

## Trail finished in Coldfoot

In August, the Central Yukon Field Office put finishing touches on a new trail linking the year-round Slate Creek Inn/Coldfoot Camp (small gas station/post office/trucker's café) to the Arctic Interagency Visitor Center in Coldfoot. BLM employees, visitor center staff and volunteers installed interpretive signs as part of National Public Lands Day. When you visit this trail, you can learn about the boreal forest and stroll to and from the visitor center for award-winning exhibits and evening presentations.



# News from around the State

## Nome Creek Valley Hiking Trail from Mt. Prindle Campground

The Eastern Interior Field Office is making preliminary plans for a new hiking trail in upper Nome Creek valley. The trail plans are for a loop that leads from the Mt. Prindle Campground and up the valley toward Mt. Prindle (5,286 ft.), a prominent peak that sits on the border between the BLM White Mountains National Recreation Area and the BLM Steese National Conservation Area. The trail, which will feature sustainable trail design, will provide easier access to an area popular for berry picking and wildlife viewing. The BLM hopes to partner with local organizations for maintenance of the new trail.



Craig McCaa

## BLM Alaska's Resource Management Plans

These plans form the basis for every action and approved use on public lands managed by the BLM in Alaska. The BLM prepares these plans to cover planning areas, public lands that tend to have similar resource characteristics. BLM planners collaborate on these plans with state, local, and tribal governments. The public, user groups, and industry work with the BLM to identify appropriate multiple uses of these public lands. When conditions or demands for resources change, the BLM revises or amends these plans.

Resource Management Plans:

- Allocate resources and determine appropriate multiple uses;
- Develop strategies to manage and protect resources; and,
- Establish systems to monitor and evaluate status of resources and effectiveness of management practices over time.

In Alaska, the following BLM land use plans and environmental impact statement are in process:

- Bering Sea-Western Interior Resource Management Plan
- Central Yukon Resource Management Plan
- Greater Mooses Tooth 2 Supplemental Environmental Impact Statement
- Ambler Road Environmental Impact Statement
- Visit our [planning website](#) and learn more.

## "People and Place" ... participation with a plan to partner!

Though North Slope Alaska residents number less than ten thousand of the four million people internationally who call the Arctic home, native Iñupiat make up almost 75 percent of their population. The distinctive people in this exceptional place strive to promote healthy communities and cultural strength, along with necessary economic development and environmental sustainment. This unique Arctic community stands as an essential contributor to the field of Arctic social sciences.

"People and Place," the Ninth International Congress on Arctic Social Sciences took place in Umeå, Sweden, from June 8-12 with the North Slope Science Initiative Executive Director Sara Longan in attendance.

With over a decade of experience in Alaska encompassing work with health sciences, environmental programs, oil and gas development, native community concerns and more, Sara brought invaluable understanding to the Congress and its workshop participants. During her week in Sweden, Sara worked with local, national and international experts to explore current issues and opportunities as they relate to social and human health systems in a changing and developing Arctic. While attending several technical workshops, she presented critical information on Alaska's perspectives as they relate to Traditional and Local Ecological Knowledge for integration into decision-making processes.

Formal workshops aside, Sara brought together several permanent participants attending the Congress and Alaska Native colleagues to share North Slope Science Initiative updates and explore opportunities for future collaborations. By fully embracing the premise of "People and Place," Sara encouraged developing relationships with the NSSI and came away from the week accomplishing her plan to partner.



Sara Longan

Umeå city church in Umeå, Sweden.



**DESIGNATED  
DEC 20, 1980**

2 developed campgrounds  
with camping at designated  
sites within the river corridor



# GULKANA RIVER

WILD AND SCENIC

early-June



mid-Sept

Summer  
Season



**60**  
BIRD  
SPECIES



**30**  
MAMMAL  
SPECIES

**181**  
MILES

**CLASS I-IV**

**4,000**  
AVG. ANNUAL  
VISITORS



## POINT OF CONTACT

Glennallen Field Office  
P.O. Box 147, Mile Post 186.5 Glenn Highway  
Glennallen, AK 99588  
Phone: 907-822-3217

Sport fish:  
rainbow trout  
Arctic grayling  
king salmon  
red salmon

Other Species:  
round whitefish  
longnose suckers  
lamprey  
steelhead

