

FRONTIERS

News about Bureau of Land Management (BLM) Public Lands in Alaska • Issue 121 • Fall/Winter 2014-15



Fall in Love with ALASKA

Alaska



*Moose family near the Fortymile Wild and Scenic River
by Bob Wick (BLM)*

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What is Subsistence?



Beaver Creek Wild and Scenic River in White Mountains National Recreation Area.

Welcome to Frontiers!

As a photographer, I am passionate about photographing Alaska and appreciate good images that show Alaska's landscapes and natural resources. It is a pleasure to share BLM photographer and wilderness specialist Bob Wick's three-week photographic journey last summer to BLM-managed public conservation lands around our state.

Another unique aspect to BLM Alaska is the federal subsistence program. BLM Alaska staff specialists compiled a lengthy article on this important part of the Alaskan lifestyle.

I am also a fan of writer Ned Rozell and his science columns. He spent time in Eagle as the BLM Eastern Interior Field Office's Artist in Residence. Share his experience through an interview with public affairs specialist Craig McCaa.

Near press time, BLM Alaska released guidance for reclamation of placer-mined streams on public lands. We will run an article on this in the next issue of *Frontiers*. Meanwhile, check out the guidance at <http://www.blm.gov/ak/minerals>.

In this issue you can also discover how students are working alongside wildlife biologists helping to radio-collar and collect annual research data on the Western Arctic Caribou Herd.

Karen
Karen J. Laubenstein
Editor

Social Media Update



The top BLM Alaska Facebook photo post for 2014 is a photo of a black bear along the Dalton Highway. The photo reached more than 33,500 people and had 355 shares.

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What in the world is an ACEC?

As part of its management of federal public lands, the BLM designates Areas of Critical Environmental Concern or ACEC that highlight areas where special management attention is needed to protect, and prevent irreparable damage to important historical, cultural, and scenic values, fish, or wildlife resources or other natural systems or processes; or to protect human life and safety from natural hazards. BLM Alaska currently manages 46 ACECs, though with three land use plans in process, this number may change. During land use planning, the BLM looks at existing ACECs and considers nominations for new ones, so it is an ongoing process. You can find current ACECs mapped on the BLM GeoCommunicator simply by clicking on the ACEC layer data set: <http://www.geocommunicator.gov>.

One of the most visually stunning ACECs is Sukakpak Mountain (MP 203 of the Dalton Highway). A massive wall of Skagit Limestone rising to 4,459 feet (1,338 meters) that glows in the afternoon sun, Sukakpak Mountain is an awe-inspiring sight. Peculiar ice-cored mounds known as *palsas* punctuate the ground at the mountain's base. "Sukakpak" is an Iñupiat Eskimo word meaning "marten deadfall." As pictured here from the north, the mountain resembles a carefully balanced log used to trap marten. The BLM designated this area in 1990 as an ACEC to protect extraordinary scenic and geologic formations.



Sukakpak Mountain sparkles in this reflection from the north.



Palsas showing their ice cores at the base of Sukakpak Mountain.



STUDENTS EXPLORE CARIBOU BIOLOGY AT ONION PORTAGE

Imagine being able to assist biologists with collaring caribou while learning about caribou health and migration patterns as part of a school project. The biologists and students worked out of boats, collecting and processing blood samples from caribou to check for diseases and to assess the overall health of the herd. Caribou have many adaptations that help them cross rivers. Caribou are excellent swimmers, and their hollow inner hair helps them float high in the water. They often scout safer crossing areas or wait for better crossing conditions.

The BLM Alaska Central Yukon Field Office funded 12 students to assist biologists with caribou research activities over a week in September. The Onion Portage caribou collaring project, led annually by the Alaska Department of Fish and Game (ADFG), takes advantage of the predictable Kobuk River crossing of the Western Arctic Caribou Herd during their fall migration to winter range.

ADFG has sponsored students to help with this project most years since 1980, but this year they didn't have the funding. The Central Yukon Field Office stepped in to cover student costs.

The biologists and students worked out of boats, capturing swimming caribou and holding them by their antlers for a few minutes to slip on the radio collars. These collars help researchers follow the herd's movements, track calving success, and learn about survival rates. The students experience life in a research field camp and better understand the work the biologists do.

The students will present their Onion Portage data at the annual meeting of the Western Arctic Caribou Herd Working Group in Anchorage.

Youth participation in both field biology and reporting helps ensure that all generations of Alaskans remain aware and engaged in the success of this important wildlife resource. The Western Arctic Caribou Herd is one of the largest free-roaming migratory caribou herds in North America, estimated at close to 235,000 animals.

— BLM biologists Erin Julianus and Cara Staab contributed to this story



Students from Nome learn how caribou collar radiotracking equipment works.



A student from Nome assists ADFG caribou biologist Jim Dau with processing caribou blood samples.



Patently watching for caribou on the south bank of the Kobuk River at Onion Portage.

Photos provided by Erin Julianus

Caribou Facts

ANTLERS: Caribou are the only deer in which both sexes have antlers. Mature males have the largest antlers and work hard to keep other males away from females during breeding times. Males shed their antlers after the fall breeding season (young males keep their antlers longer than mature males). Pregnant females shed their antlers after spring calving, while non-pregnant females shed their antlers during the winter.

SIZE: In northwest Alaska, males average about 275 to 375 pounds and females about 200 pounds. Caribou do not store much of their fat in muscle tissue, so their meat is leaner and healthier than beef.

HAIR: Caribou hair helps the animals survive cold, snowy places. Their winter hair is about three inches long and is hollow inside to trap air and keep warmth near their bodies. The hollow hair also provides buoyancy to help the caribou float while crossing rivers and lakes.

HOOVES: Caribou have four hoofed "toes" on each foot and walk on the two larger ones, like a cow does. Caribou can walk on deep snow or bumpy ice because their four toes spread wide to act like snowshoes. Their hooves slide out from underneath them on shiny, smooth ice, and some caribou fall and may even break their legs this way.

HERDS: Caribou gather in large herds about three weeks after the calves are born and the great herds increase their movement.

LIFESPAN: Healthy male caribou live about seven to eight years, females live slightly longer (10 or more years). Many caribou die within the first year they are born.

ORPHANS: Orphaned caribou calves are not adopted by other caribou, so if the mother dies or the calf becomes separated from its mother, it will not survive.

PREDATORS: These include wolves (usually in winter), bears (spring, summer and fall), and sometimes lynx or eagles will take the very young calves. In deep snow, wolverines can sometimes kill caribou. Humans have hunted caribou for thousands of years.

MOSQUITOES AND OESTRIDS: Mosquitoes and flies play an important role in caribou behavior and health. Mosquitoes appear first in early summer, just as caribou shed their long winter hair. Mosquito bites are worse in warm weather when winds are calm and caribou are in damp tundra areas where mosquitoes breed. The oestrid fly arrives later and attempts to lay eggs inside caribou nasal passages or under their skin. Caribou run, move to higher, drier, or windier areas, into large lakes or shallow salt water, bunch into dense groups, or move to snow/ice patches to try to escape insects. The running, blood loss, and inability to spend time eating can cause caribou to lose weight at a time when they need to be getting fat for winter, so insects are a major influence in caribou health.

CARIBOU AND REINDEER: Caribou and reindeer are the same species (*Rangifer tarandus*), but there are important genetic differences. Reindeer are a domesticated variety of caribou that originated in Europe; they are shorter and have smaller antlers than wild Alaska caribou. In Alaska, only Alaska Natives can own and herd reindeer under the 1937 Reindeer Act.

ALASKA SUBSISTENCE



Preserving red salmon using the traditional drying method.

Living off land and water resources

Rural Alaskans live by the seasons and the tides: migratory bird season, whaling season, ice fishing season, moose season, berry season, freeze-up season – the daily ocean tides and the annual tides of caribou and salmon migrations. Many rural Alaskans define the “seasons” by what subsistence foods can be optimally searched for, gathered, and preserved. Common day-to-day activities become a part of living a subsistence lifestyle.

An ATV ride is also an opportunity to scout for a good berry patch or locate where a moose might be found come opening day. Time spent at fish camp putting up salmon becomes a reconnaissance trip for a hunting trip, or an opportunity to soak a set line for burbot. When rural Alaskans are camping, hunting, hiking, or boating, they may be having a great time, but there is usually something more to it.

For many rural Alaskans, fishing means using a fishwheel, dipnet, seine, or gillnet to capture and store much needed protein for

the year. Subsistence harvest limits for fish are generally set to accommodate a household’s annual needs and are typically much higher than the individual sport fisherman’s daily bag limit of a few fish.

If you are lucky enough to visit villages along the Yukon River in summer, you can easily see evidence of a subsistence lifestyle. Moose and caribou antlers, evidence of past harvests, around the village; fishing nets hung to dry; and fish camps and smokehouses. You might witness people gathering or harvesting wood for the coming winter. In winter, many people wear fur and leather garments, fully using the animals they harvested for food. This is all evidence of the subsistence way of life.

A subsistence lifestyle means survival, perpetuating cultural or social ways of life, and an ability to share harvests among family and neighbors. Life in rural Alaska often depends on filling pantries and freezers. In a land where winter dominates, subsistence is necessary for survival, quality of life, and the continuation of who Alaskans are as a people.



Harvesting berries like these cranberries, provides a good source of vitamin C to use through the long winter ahead.

Subsistence and BLM in Alaska

Did you know that Alaska is the only state where the federal government is empowered to manage federal public lands and waters for the subsistence harvest and uses of fish, wildlife, and other renewable resources? In 1980, the Alaska National Interest Lands Conservation Act (ANILCA) recognized non-wasteful subsistence use of renewable resources on public lands by rural Alaskans as the priority consumptive use.

Why is there Federal Subsistence in Alaska?

Section 801 of ANILCA recognizes that subsistence is “essential to [Alaska] Native physical, economic, traditional and cultural existence and to non-Native physical, economic, traditional and social existence.” ANILCA points out that it was “... necessary for the Congress to invoke its constitutional authority...to protect and provide the opportunity for continued subsistence uses on the public lands by Native and non-Native rural residents [in Alaska].”

As well as fish and wildlife, subsistence includes the gathering and use of wood, antlers, mushrooms, berries, grasses, and other plant materials. For thousands of rural Alaskans, especially in remote villages far from the road system, a significant amount of protein and most food comes from subsistence practices. Purchased food is very expensive in villages, which typically do not have many cash-paying jobs. Alaska’s rural residents harvest an average of 375 pounds of wild foods each year, or about 22,000 tons, with fish making up about 60 percent of those harvests.

Most federal lands in Alaska managed by the BLM, U.S. Fish and Wildlife Service, National Park Service, and U.S. Forest Service, are under the scope of the Federal Subsistence Management Program. Federal management of subsistence was put in place in 1989 after an Alaska Supreme Court ruled that the State of Alaska’s granting rural Alaskans a priority to harvest fish and game violated the Alaska Constitution because fish, wildlife, and waters are reserved to the people for common use. To ensure enforcement of ANILCA’s rural subsistence priority mandate on federal public lands, the Federal Subsistence Management Program was formed.

The BLM in Alaska has an important role in managing for subsistence. The BLM-Alaska State Director and state directors of the

U.S. Fish and Wildlife Service, National Park Service, U.S. Forest Service, and the Bureau of Indian Affairs serve on the eight-member Federal Subsistence Board. The Board is the decision-making body for regulatory matters and policy issues regarding federal subsistence management in Alaska. Two rural public members and a chair selected by the Secretaries of the Interior and Agriculture round out the Board membership. The Board solicits public input on regulatory and policy matters through ten Regional Advisory Councils and consultations with Alaska Native tribes and corporations.

For its part, the BLM implements federal subsistence fish and wildlife harvest regulations in Alaska on its public lands, as well as on waters within two conservation areas (Steese National Conservation Area, White Mountains National Recreation Area) and six National Wild and Scenic Rivers (Beaver Creek, Birch Creek, Delta, Fortymile, Gulkana, and Unalakleet rivers). Additionally, whenever BLM initiates any action to withdraw, reserve, lease or otherwise permit the use, occupancy, or disposition of lands it manages in Alaska, provisions within ANILCA require the BLM to specifically evaluate and address potential impacts to subsistence by these management actions.

Alaska is a huge state and its subsistence fish and wildlife species are diverse and complex. To better manage these resources, Alaska is divided into 26 Game Management Units (GMUs). The GMU’s are geographically derived and may contain a mixture of privately owned, state, federal, regional and Native village corporation, or Native allotment lands. Federal and state hunting regulations for each GMU are unique, and both sets of regulations may include distinct prescriptions for harvest methods and means, bag limits, and access. This approach has been coined “dual-management” wherein State of Alaska fishing, hunting, and

trapping regulations apply on all lands and, in general, all Alaska residents are eligible to hunt under the state provisions.

Federal subsistence regulations, on the other hand, apply only on federally managed public lands where only rural Alaskans may fish or hunt using those regulations. On federal lands, federal subsistence regulations, including closures, supersede state regulations when there is a difference in the regulations.

For example, under this dual management structure, the State of Alaska often administers a hunt for the same species, in the same area, as a federal subsistence hunt. The difference for the federally qualified rural subsistence hunter using federal subsistence regulations, might be a longer hunting season, a bigger bag limit, or a more liberal means of access than his urban-based hunting companion using state regulations. Understandably, this dual management approach can create complex biological, allocation and enforcement challenges for resource managers, and require a high degree of cooperation and coordination among state and federal managers.

What are the numbers?

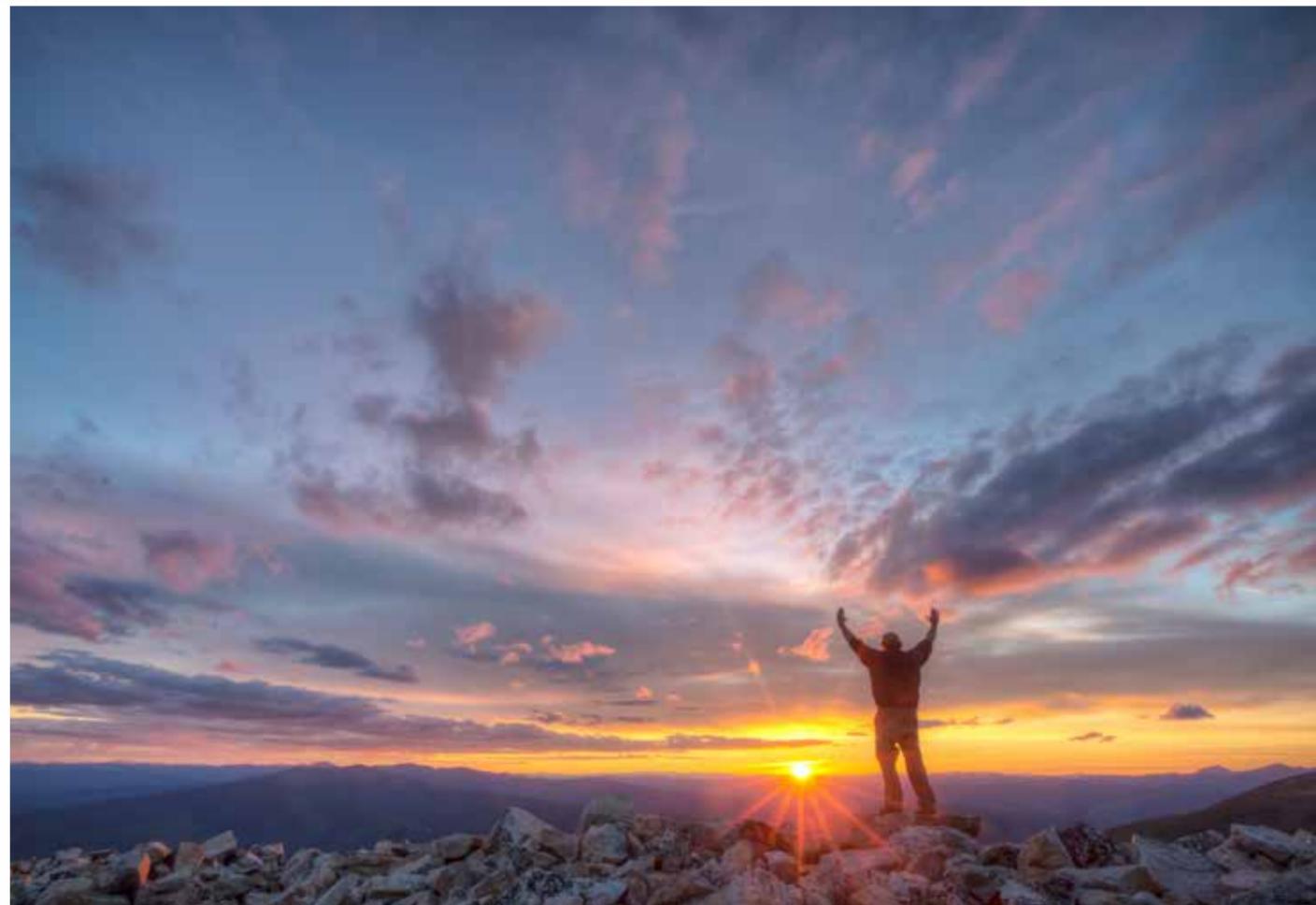
The five BLM Alaska field offices each have federal subsistence management responsibilities for the GMU’s within their administrative boundaries. The Glennallen Field Office issues about 80 percent of all federal subsistence wildlife harvest permits issued annually in Alaska. This includes about 3,750 federal subsistence permits for moose or caribou in Unit 13. Federal subsistence harvesters in Unit 13 consistently take about 350 caribou each year.

Find more information on the Federal Subsistence Management Program, including how qualified residents can apply to be considered for membership on the Subsistence Advisory Council, here: <http://www.doi.gov/subsistence/index.cfm>



BOB WICK

The Man Who “Rarely Sleeps” Captures BLM in Alaska



Bob Wick's first photo of Alaska's midnight sun from Taylor Peak above the Fortymile Wild and Scenic River near the town of Chicken.

Bob Wick

It was one of the most enjoyable phone interviews ever! Bob Wick, a natural resource specialist with BLM California Division of Natural Resources in Sacramento, entertained us with stories of his Alaska summer photo adventure. On his trip, he recorded more than 8,000 images. Along the way, he led us into some thought-provoking discussions about the BLM in Alaska, the need for public awareness of the value of public lands nationwide, and how to preserve these lands for the future.

Bob's photography, which started as a hobby over two decades ago, has morphed into a major part of his job as his obvious talent with a camera has found its way onto BLM social media, posters, and publications. Last March, CBS News broadcasted "Amateur photographer's images helped preserve national treasure." That month, as President Obama added more of northern California's coastline to the California Coastal National Monument for preservation and protection, CBS attributed much of the credit to Bob's photographs. He created similar magic with his captures in Alaska.

Bob admitted he came to Alaska without really knowing what to expect, although it was his second trip. In 1994, he did the Alaska tourist bit – Anchorage, Seward, Talkeetna, Homer, and other tourist destinations. With BLM Alaska this past summer, he visited what he calls Alaska's amazing backcountry. He said he'd never been in wilderness so expansive. BLM's Inigok field facility, smack in the middle of the 22.8-million-acre National Petroleum Reserve in Alaska (NPR-A), felt nearly as isolated as an Antarctic outpost.

He couldn't disguise his overwhelming enthusiasm at Alaska's immense landscapes, especially along the Denali and Dalton highways, the Trans-Alaska Pipeline System corridor, the North Slope and NPR-A, the White Mountains National Recreation Area, the Fortymile region, and the Steese National Conservation Area. While he loves to go solo when photographing public lands in the Lower 48, he says Alaska is different and he could



Karen Deatherage

Bob Wick gets a macro shot of flowers on the North Slope at Atigun Pass.

not have done it alone. Bob said nothing compared to the level of support he had from BLM staffers in Alaska.

“Photography is my passion. Sometimes BLM public lands are not charismatic and I have to work for the light and to find the beauty. In Alaska, it was subject after subject.”

He'll never forget his hikes and river floats. He usually has backroads to get into BLM-managed backcountry, but not in Alaska. He traveled by air, inflatable kayak and raft, foot, and car, to name a few.

His short float trip on Beaver Creek Wild and Scenic River grew lengthier and more dramatic than anticipated due to torrential rain and rapid flooding (see sidebar). He loved the sights of white Dall Sheep on the cliffs and from the air. He encountered snow on the Dalton Highway. He floated the popular sportsfishing Gulkana Wild and Scenic River, encountering frost at one point, and camped out at Tangle Lakes along the

—continued on page 10

Craig McCaa, Public Affairs Specialist in the Fairbanks District Office, accompanied photographer Bob Wick on a float trip on the Beaver Creek Wild and Scenic River. Here is his story.

The Beaver Creek Wild and Scenic River was an important item in Bob's itinerary, but his busy schedule precluded the usual week-long float trip. After poring over maps, we arranged a shorter trip ending on a prominent Beaver Creek gravel bar. We spent an evening and the following day on the river, with stops for gorgeous evening light, Dall sheep, and an obliging bald eagle, then made it to our pickup spot right on schedule. The next morning we packed up our boating gear and called in by satellite phone to confirm our pickup. However, rain soon pelted down and the cloud ceiling dropped. We were stuck.

I told Bob that being stuck on a gravel bar while waiting for weather to clear was a quintessential Alaska experience. He took it well. Perhaps he even looked forward to a little involuntary down-time in the middle of his hectic, and largely sleepless, Alaska trip. We waited all day, checking in by phone every few hours. His patience even held as the weather failed to improve and it became apparent that we'd be spending a second night on our soggy gravel bar. Before turning



Craig McCaa

Bob Wick watches the rising waters of Beaver Creek flood his campsite.

in for the night, we watched a little uneasily as Beaver Creek continued to rise, eventually shrinking our gravel bar in half. Logs and entire trees, lifted and ripped from flooded riverbanks, bobbed past our campsite. We made a plan to abandon ship if the water reached our cooking area, about a foot lower than our tent sites.

Here Bob's photographer habit of waking every few hours to look for 'good light' worked to our advantage. In the wee hours he announced that the water had reached our trigger point.

We hastily packed up camp, waited for a break in the train of logs sweeping by, and pushed our inflatable kayaks into the brown surge. A short distance downstream, we found a much better (higher) gravel bar and waited there until mid-day, when the sky brightened and we heard the welcome sounds of our ride echo through the valley. Bob made it to Fairbanks that night for a rare respite in a hotel room. That was a good thing, because the next day he was off to the Brooks Range, Dalton Highway, and more days of little sleep.

developed, he thought, from his perpetual quest for this "good light." In Alaska, he was stunned that the low-level light lasted for hours and hours. Elsewhere he usually catches up on his sleep at other times of the day, but since the good light lasted so long in Alaska, he found himself putting in 16-hour-plus days.

Bob feels the BLM has a challenging mandate for our conservation lands. He thinks it's important for BLM employees as well as the public to see and appreciate the diversity, beauty, and treasure of public lands throughout our country.

Bob has a love affair with Alaska, now, a new passion beyond his lens. As for his images, he's helping BLM Alaska show the world what we have, and for those employees lucky enough to have spent time with him, some images and memories of a lifetime.

— Karen J. Laubenstein
Managing Editor
BLM Alaska FRONTIERS

NED ROZELL

2014 BLM Artist in Residence in Eagle, Alaska

Last August BLM hosted Fairbanks writer Ned Rozell as its first summer Artist in Residence. Rozell, the author of four books, has written a weekly science column for 20 years for the University of Alaska Fairbanks' Geophysical Institute. He's also a contributing writer for Alaska Dispatch News.

Rozell spent his 11-day residence from Aug. 22 to Sept. 1 in the Yukon River community of Eagle, where he dusted off an old writing project he'd been meaning to attend to for years. Toward the end of his residence, Rozell also gave a public presentation about "Top 20 Things You Didn't Know about Alaska" in Eagle's historic St. Paul's Church, now a museum. BLM Public Affairs Specialist Craig McCaa caught up with Rozell to hear about his residency in Eagle.

Since you spent time in Eagle over the years, what changes have you noticed in the Eagle community?

In 1993 and 1994, I was a seasonal ranger for Yukon-Charley [Rivers National Preserve in Eagle]. Eagle is a lot quieter than 20 years ago, probably because of the [2009] flood and the damage it did to the waterfront businesses. Right now there's no restaurant. When you drive in, it seems there's not that many other people making that turn on the Taylor Highway to go toward Eagle. Very low traffic. In Eagle you don't really see that many tourists chugging around there.

You stayed in BLM's barracks by the Eagle airstrip during your residency. How did you spend your days?

It was just me most of the time. It was great. It was really quiet, so quiet that when a raven passed over you could hear creaking . . . Eagle is a pretty quiet place anyway, but being out by the airstrip you're even removed from downtown Eagle. There would be full days without anyone landing at the airport!

I did a ton of reading. I did a lot of writing, played some guitar, did some hiking, a little bit of running, a lot of riding my mountain bike around, and took a lot of walks by the river. I went to Eagle Village several times. I went to a potlatch for a guy's birthday.

How did the special project you wanted to work on during your residency work out?

I had a draft manuscript, about 100,000 words, that I started 20 years ago when I was a park ranger. I didn't like it very much and hadn't looked at it in a while. A hundred thousand words is a pretty big investment, so I wanted to revisit it some day. When I saw this residency opportunity in Eagle, I thought, "Man, that would be a good thing to do in Eagle." It's a novel that's sort of set [in Eagle], so knew it would be nice to polish it up there. I did some adding and subtracting, and came out with a good draft. I also read John McPhee's *Coming into the Country* and other stuff that [helped with the writing.]



Ned Rozell

As someone who has seen much of Alaska, what stands out about Eagle and the Fortymile area?

I like the deep summer heat of the Interior, the size of the Yukon River flowing past Eagle and how it makes a big bend [that] runs into a cliff. I like the Fortymile River for its size, its color, the deep warmth you get there, the caribou you can see. You can't really see [this] in Fairbanks. There's just not that many people there.

What was your impression of the BLM Artist in Residence program in Eagle?

I really appreciated the peace and quiet, and not being required to do anything else but work on that manuscript. That's the only real thing I felt I had to do out there. I liked being disconnected from the Internet because it's such a distraction now in life. And the only way you could get Internet was to stand outside the Eagle library within the halo of wifi. [The library] had really weird hours, only open a couple of hours a day, so I rarely got there when the library was open. When I went to peek on the Yankee scores, I had to stand, which limited my time. It's nice to get away from that stuff!

Find out more about BLM Alaska's Artist in Residence Program at http://www.blm.gov/ak/EIFO_AiR

Continued from page 9—

Denali Highway. He was amazed at the numbers of bicyclists traveling the gravel highways so far from almost anywhere. He'll never forget when a storm broke at sunset over the Denali Highway with its vivid oranges. He visited the Fortymile area, where his memorable 2 a.m. photo of a man greeting the midnight sun went viral on the BLM Tumblr site. <http://mypubliclands.tumblr.com/image/88957188887>

His voice warmed with pleasure as he talked about Alaska's moose, especially the calves, which he called his favorite "critters" to photograph. He delighted in watching the calves mimic their mother, lick the ground, or frolick with each other.

He gushed about Alaska's light. "So beautiful, so amazing, the most amazing light!" Bob explained that in other states, he is always looking for the ("golden hour") when the sun is near the horizon, usually about one-half hour before and after sunrise or sunset. His reputation for never sleeping

BLM in Alaska Celebrates!

Every year, several BLM offices around Alaska plan events to celebrate National Public Lands Day. This year's 21st National Public Lands Day focused on "Helping Hands for America's Lands." In Alaska, dedicated volunteers turned out for successful events along the Denali Highway and in Eagle, Coldfoot, and Anchorage.

Families and volunteers from Glennallen and the Copper River basin helped clean up 42 miles of the **Denali Highway**, a mostly gravel road that stretches 132 miles across Interior Alaska from Paxson to Cantwell. These volunteers removed 30 bags of litter, six rusted barrels, and pieces of old culvert.

The Yukon River community of **Eagle** turned out to "Celebrate Public Lands through Art." The BLM helped coordinate the event with the Eagle Historical Society & Museums, which provided art materials and a community picnic. Local and visiting artists came together to demonstrate ways to explore public lands through artistic creations. Kids made leaf interpretation posters for a local nature trail. Artist Kathy Russo from Ketchikan demonstrated weaving techniques using local materials and Yukon River rocks.

Coldfoot's celebration was coordinated by Eagle Scout candidate Garrett Sheets. Sheets guided other scouts and volunteers to begin a new access trail at milepost 175 of the Dalton Highway. This new trail will link the year-round Slate Creek Inn/Coldfoot Camp (small gas station/post office/trucker's café) to the Arctic Interagency Visitor Center. This new trail will make it safer for visitors to get to both places on foot. The volunteers and BLM staff worked for more than 12 hours to make this amazing project a reality.

Anchorage's Campbell Tract 112 hard-working volunteers accomplished a great deal of backlog maintenance projects. They spread 250 tons of gravel over an 1,800-foot section of the P-38 Lightning Loop Trail and planted 280 trees and prickly rose plants. They also removed invasive weeds, picked up trash, installed drains, and painted railings. They gardened, landscaped, and revegetated. The volunteers included families and representatives from the Girl Scouts, Student Conservation Association, REI, Alaska Native Plant Society, Alaska Geographic, Chugach School District, Friends of the Campbell Creek Science Center, the Anchorage Cooperative Weed Management Area, the CCSC Summer Youth Internship Program, and many other local members of the community.

 Anchorage: Painting fences, trail work and this year's t-shirt. Photos by Teresa McPherson.
Dalton Highway: Volunteers removing brush and weeds to make the new trail. Photos by Craig McCaa and Karen Deatherage.
Denali Highway: Volunteers cleaned up 42 miles of the Denali Highway. Photos by Marnie Graham.
Eagle: Exploring public lands through artistic creations. Photos by Ruth Grunquist.



Anchorage



Anchorage



Denali Highway



Dalton Highway



Dalton Highway



Dalton Highway



Anchorage



Denali Highway



Eagle



Eagle

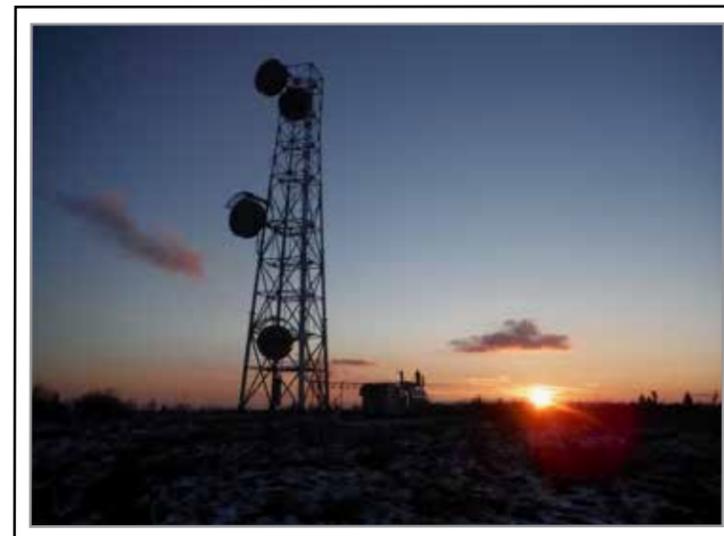


NPR-A oil and gas development a step closer



BLM Alaska released the *Final Supplemental Environment Impact Statement (SEIS) for the proposed Greater Mooses Tooth Unit oil and gas development project (GMT1) in the National Petroleum Reserve in Alaska (NPR-A)* on Oct. 29, and the *Federal Register* published the formal Notice of Availability on Nov. 7. BLM plans to issue a GMT1 Record of Decision. In a range of alternatives in the SEIS, BLM identifies Alternative B as its Preferred Alternative that will allow development

and injection wells on a single well pad at GMT1, a gravel road for access, and will substantially reduce potential impacts of aircraft overflights local communities and subsistence users are concerned about. GMT1 would facilitate the first production and transportation by pipeline of oil from federal lands in the NPR-A. You can find out more at <http://www.blm.gov/ak/GMTU1>.



Grant Creek repeater site

TERRA prepares to “close the loop”

The BLM began the Environmental Assessment scoping process in September for the final phase of GCI’s TERRA Yukon broadband communications project. The planned five microwave repeater sites for this phase will complete the fiber-optic and microwave network loop to connect southcentral, southwest, western, and interior Alaska. This loop will allow communication signals to provide uninterrupted service by being able to reverse direction if a break occurs.

The BLM will offer community outreach to Galena and other villages along the proposed route to invite their input this fall. The BLM will then complete the EA and issue a decision. Construction could begin as early as spring 2015.

You can get additional information on the TERRA project from Tom Sparks, tsparks@blm.gov and <http://terra.gci.com>.

17 BILLION BARRELS Trans-Alaska Pipeline System moves 17 billionth barrel of oil

Alyeska Pipeline Service Company announced July 27 that the pipeline has moved a staggering 17 billion barrels of Alaska North Slope crude oil over the 800 mile journey from Prudhoe Bay to the Valdez Marine Terminal. The first barrel entered the pipeline 37 years ago on June 20, 1977, arriving in Valdez on July 28. During its 37 years of operation, the pipeline has generated roughly \$183 billion in state revenue. As a land management agency along the pipeline corridor, the BLM provides continual oversight for the safe movement of oil.

BLM national award recognizes Alaska’s NYAC Mining Company

The NYAC Mining Company has worked in Southwest Alaska in the Tuluksak River drainage for 15 years. The BLM awarded them its 2013 Reclamation and Sustainable Small-Operator award at a Washington DC ceremony on Oct. 27 for the sustainable process the operators developed to handle wastewater and tailings at their mine site. Their process leaves the land more biologically active than before mining. Their holistic water management and reclamation process captures fine sediments for use in reclamation, and ensures no unsettled water leaves the mine site. NYAC mine operators also use their process to stabilize the soils and re-vegetate as early as possible. The BLM award recognizes this innovative approach to reclamation and their sensitivity to the impact of mine activities. Find out more at: <http://on.doi.gov/16ugb03>



BLM employees Laurie Thorpe, James Whitlock, and Matthew Varner examine a stream on a site visit to NYAC’s mining project. NYAC is the winner of BLM’s Reclamation and Sustainable Mineral Development Small-Operator Award.

NPR-A oil and gas lease sale

BLM Alaska held its annual National Petroleum Reserve in Alaska (NPR-A) oil and gas lease sale on Nov. 19. The sale generated \$658,978.20 for 7 tracts of about 66,650 acres out of the 270 tracts and about 3 million acres offered. The highest bid of \$206.201 or \$53.67 per acre was offered by ConocoPhillips Alaska, Inc./Anardarko E&P onshore LLC. Go to www.blm.gov/ak for information about this year’s lease sale.

“Iditarod Roadhouse” exhibit at the fair



Teresa McPherson

The Iditarod National Historic Trail booth included sleds, both a modern musher’s sled and a freight sled.

More than 2,700 Alaska state fairgoers got to experience a touch of Iditarod Trail and gold rush history, while learning about the only trail in Alaska on the National Historic Trail System. Within its rustic canvas tent emblazoned with “Iditarod Roadhouse” on its roof, the staffed exhibit featured trail maps, historic photos, kid’s activities, memorabilia, and mushing sleds. It wasn’t unusual to find a musher or two at the exhibit reminiscing about their runs on the trail. BLM Alaska and partners have hosted the exhibit annually at the State Fair since 2008 during the Trail’s 100th anniversary celebration. This year’s fair ran from Aug. 21 through Labor Day. BLM exhibit partners included the nonprofit Iditarod Historic Trail Alliance, Alaska Department of Natural Resources, and Chugach National Forest. After passage of the National Trails System Act as amended on Nov. 10, 1978 establishing the Iditarod National Historic Trail, the BLM was delegated the Secretary of the Interior’s role as the Trail Administrator. Although, the BLM provided most of the exhibit staffing during the first years at the fair; the partners now provide 75 percent of the staffing support. Find out more at <http://www.blm.gov/ak/Iditarod>.

Kim Mincer

New BLM Alaska Chief of Communications: Lesli Ellis-Wouters

A world traveler who graduated from high school in Japan and still considers it “home,” Lesli Ellis-Wouters is the new BLM Alaska Chief, Office of Communications. Relatively new to the BLM (her first “civilian” job was a BLM Nevada Elko District public affairs specialist), Lesli has a long background in public affairs for the military. She also served on a three-month detail as acting External Affairs Chief for BLM-Wyoming in Cheyenne, worked as an editor, and has experience in media relations, internal operations, marketing and recruiting.

Lesli says she’s “really excited about this opportunity to work for BLM Alaska and experience all that Alaska has to offer.” She’s busy making plans to hike public lands, watch sled dog races, view the aurora borealis, and explore Alaska. Lesli enjoys being outside and traveling, but also enjoys reading and puzzles.



BLM staff

Teacher develops climate change educational program for 5th and 6th grades

North Star Elementary sixth grade teacher Rena Michaud spent her summer working at the BLM Campbell Tract developing a science-based climate change curriculum for fifth and sixth grades through the Teachers on Public Lands program. Michaud also learned about the scope of the BLM, the Science Center’s educational programs, and the challenges climate change presents for teachers and land managers in Alaska. Michaud pilot-tested the curriculum by bringing her sixth graders and another class to the Science Center to try out her program first-hand.



Luise Woefflein

Educator Rena Michaud checks with her sixth graders during an environmental data collection activity on Campbell Tract.



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What is subsistence?

What is subsistence? During testimony before the U.S. Senate Committee on Energy and Natural Resources, Dr. Rosita Worl, Chair of the Alaska Federation of Natives Subsistence Committee, explained, “The concept of ‘subsistence’ is not an easy concept to define. No one definition of subsistence fully captures the meaning of the term. Alaska Natives have simply defined subsistence as their way of life.” Subsistence is not just eating wild game, but is a continuation of a cultural way of life.

The ability of Alaska Natives to pursue a subsistence lifestyle is closely linked to their food security. The Inuit Circumpolar Council Alaska recognizes food security to be inclusive of both cultural and environmental systems. The environment shapes Arctic communities and provides food, fiber, shelter, medicines, energy and spirituality – all of which play a part in food security.

BLM Archaeologist John Jangala adds, “There may be as many definitions of subsistence as there are people subsisting.”

Read more on page 6!

(Top Right) Caribou herds have been vitally important for survival and an integral part of the culture of peoples in Alaska for thousands of years. Today caribou remain a staple food, a critical part of the local economy, and the herd impacts the entire food web through nutrient cycling across their range. *(Bottom Right)* Subsistence fishermen use drift net to haul salmon into their boat.



Jeremy Matlock



Merben Cebrian