Dear neighbors & community members, The theme of renewal seemed particularly significant when I saw the first pasque flowers of the spring. The purple flowers contrasted the otherwise gray-brown hillside and I paused to appreciate nature's symbolism of rebirth and renewal – resilient, no matter how long the winter. You'll observe this summer that we will have visitor services similar to last year; however, as we emerge from the long winter of Covid-19, we're encouraged that progress is being achieved and bits of normality are slowly returning. As park staff grow in number this spring and diffuse throughout the park to work on varied projects, we look forward to re-connecting with you.

Until the time we meet afield or in a small socially-distanced gathering, we've prepared some updates below to highlight a few of the projects in the park. I call your attention to the northern area of the park where we've recently published An Ethnohistory of the Chisana River Basin – a good read, rich in history; the center of the park where we will be installing a solar panel array in our efforts to Go Green!; and the south, where we are embarking upon investigations of the Malispina Glacier with a team of scientists supported by the National Science Foundation. More details below!

The blue, green, grey, brown, and red colors of summertime fill the Nizina River Valley (above).

For some time, we've desired to improve how we share information regarding park events and happenings with each of you among our neighboring communities. In addition to our social media platforms Facebook, Twitter, and Instagram, we've developed a new listserve to keep information flowing periodically throughout the year as significant events emerge or project highlights unfold. Read on to learn more about how to sign up!

We hope you and yours stay well and that you have a fun summer enjoying Wrangell-St. Elias National Park and Preserve!

Warm regards, Ben

Pasque flowers just can't wait! They burst into the cool spring air (below).



"There is symbolic as well as actual beauty in the migration of the birds, the ebb and flow of the tides, the folded bud ready for the spring. There is something infinitely healing in the repeated refrains of nature - the assurance that dawn comes after night, and spring after the winter." - Rachel Carson, *The Sense of Wonder*

Facilities Management Updates

Staffing, Priority Maintenance, and Stabilization Projects

The Kennecott maintenance crew is back to normal staffing size this year with several exciting projects scheduled to start, as well as the completion of several projects that were delayed due to Covid-19. While regular cleaning of facilities will remain a key task for Facilities Maintenance this summer, other work scheduled for completion includes:

- Completing the reconstruction of the West Bunkhouse utilidor (utility enclosure).
- Brushing (Fire-wising) Silk Stocking Row housing to maintain adequate defensible space.
- Brushing the Kennecott waterlines along National Creek.
- Repairs and annual maintenance on NPS housing and operational support facilities.
- Reconstruction of a deck on the northside of the Kennecott Machine Shop and the hoist on the south side.

Other projects include the installation of a new solar power generation system (more details below), exterior repairs and painting of the Transformer House, and adding power outlets and lighting to the Machine Shop.



Kennecott Mill Building Stabilization On February 18, 2020 the National Park Service (NPS) awarded a construction contract to complete Phase III of the Upper Mill Building Structural Repairs. The successful contractor is Alaska Aggregate Products LLC. (AAP) of Palmer, Alaska. Numerous rehabilitation campaigns have occurred at the mill building over the years. This project is Phase III of the recent rehabilitation efforts. In the first year, the contractors were able to stabilize the upper levels of the mill building, replace the deteriorated heavy timber wood columns, beams, floor and roof structures, the leveling of remnant ore in historic ore bin to install structural scaffold, and the installation of horizontal siding. This summer the contractors will be back to focus on the reconstruction of the high-grade ore chute. The NPS anticipates the project being accomplished this October 2021. AAP began site work on May 15, 2021. For the 2021 construction season, AAP plans to work 7 days a week. The crew size will consist of approximately 12 individuals. The construction crew will be housed in a private construction camp near McCarthy, Alaska. AAP will follow established pandemic safety protocols while on site. The protocol specifics are included in AAP's Health and Safety Plan which is available from the Park upon request wrst_info@nps.gov

Kennecott Concentration Mill building (left).

Interpretation and Education Updates

Visitor Services

Visitor Services are available this summer at the following locations:

- Slana Ranger Station: May 24th-September 25th; 9:00am-5:00pm; window services; Dial-A-Ranger at (907) 822-7401; and Alaska Geographic sales.
- Copper Center: May 14th-September 19th; 9:00am-5:00pm; Crown of the Continent shown in the theater hourly; Exhibit Hall open; window services; Dial-A-Ranger at (907) 822-7250; and Alaska Geographic sales.
- Chitina Ranger Station: May 28th-September 6th; 9:00am-5:00pm; window services and Dial-A-Ranger at (907) 823-2205.
- Kennecott: May 28th-September 17th; outside ranger "Knowledge Table" services times to-be-determined; Crown of the Continent & Kennecott Mill Film shown in the General Store/ Warehouse; exhibits open in various buildings; and Dial-A-Ranger at (907) 205-7106.

Interpretive programs may be available at some locations, inquire at specific destinations. A limited amount of bear resistant food containers will be available for backcountry trips. Visitors may borrow them from Visitor Centers and Ranger Stations, reach out to a ranger during business hours for availability.

The NPS buildings at Kennecott Mines NHL will be open for the summer, May 28th – September 17th from 9am-5pm, daily. For visitor and staff safety, persons who are not fully vaccinated, are currently required to wear COVID-safe masks in all federal buildings, including exhibit buildings in Kennecott.

Root Glacier in the sunset glow (right).



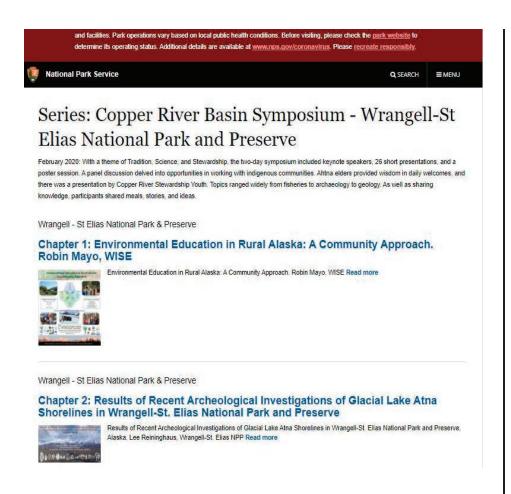
Slana Ranger Station will have window visitor services this summer (above).

Youth Activities

A 4-person Youth Conservation Corps (YCC) crew consisting of local youth ages 14-18 will be improving the Boreal Forest Trail at the Copper Center Visitor Center and the NPS Maintenance yard in Glennallen. YCC participants learn about the NPS and Wrangell-St. Elias National Park & Preserve; gain valuable professional skills; and have fun working with NPS employees. More information about the program is available on the park website: https://go.usa.gov/xHKhE.

Last year, with increased demand for distance learning, we switched from the usual outdoor programs and camps to virtual distance learning tours, presentations and lessons. Although we reached a wide online audience, we are now transitioning back into more in-person outdoor education. In collaboration with our education partners, we are now planning fishing, hiking and outdoor education programs including Covid-sensitive camping. As we move forward, our priority is to reach local youth while maximizing the benefits of both distance learning and in-person education.





New updated websites are now available, including the Copper River Basin Symposium Series featuring 21 presentation from the 2020 event (above).

Digital Information and Media Park subject matter experts and the Visual Information Specialist have updated webpages, including:

- Science and Research in the Park (<u>https://go.usa.gov/xHKhQ</u>) and,
- Copper River Basin Symposium, featuring 21 presentations from the 2020 event. (https://go.usa.gov/xHKh8)

The new National Park Service (NPS) mobile app (go.nps.gov/app) is available for visitors to national parks across the country. Created by park rangers with visitors in mind, the NPS App gives the public up-to-date information about all 423 national parks (including Wrangell-St. Elias) in one easy-to-use app. Visitors can download the NPS App in the iOS App Store and Google Play Store to plan a trip, find interactive maps, download maps and tours ahead of time and find things to do and places to visit.

For more information on interpretation and education activities, contact the Team Lead for Interpretation & Education, wrst_info@nps.gov

Hear Ye! Hear Ye!

New this year! Are you interested in learning more about park events, scientific research, and news? Wrangell-St. Elias now has a "Locals Listserv." Registered participants will receive informational emails from the park; participants can also unsubscribe at any time. If you would like to join the Locals Listserv, send us an email at wrst_public_affairs@nps.gov. Put "Locals Listserv" in the subject line and include your name, email address, and if you have an organizational or business affiliation. We look forward to this opportunity to engage with park stakeholders and neighbors.

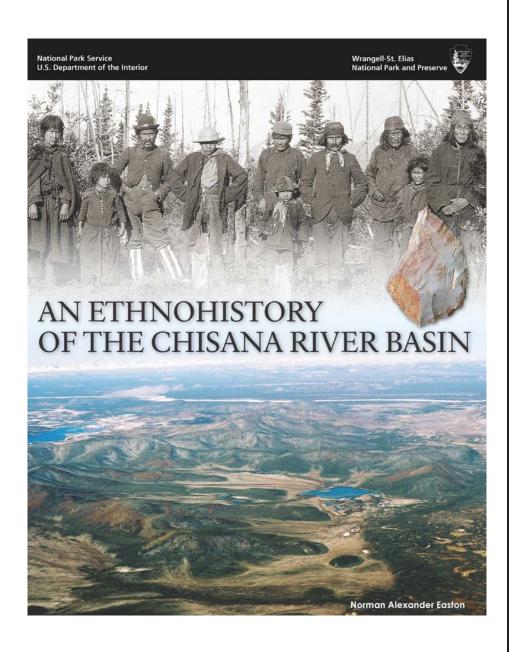


The NPS is going Green in Kennecott

The National Park Service has approved installation of a new generator and a solar panel array in the Kennecott Mines National Historic Landmark. Contractors will deliver a total of 72 solar panels, dispersed in four arrays, and 2, twentyfoot containers that house the installed system. The new solar array will provide a huge cost savings to the NPS and move towards renewable energy to power park infrastructure. By placing the panels and system near the Dairy Barn, mostly out of main viewsheds, this will allow us to upgrade and modernize the electrical system without compromising the historical integrity of the site. Following our Kennecott Copper Corporation predecessors, we hope this will allow us to provide modern technology and save money in the process. For more information, contact wrst_info@nps.gov

Resource Stewardship & Science Updates

Subsistence Fishing and Hunting Permits The park will issue federal subsistence fishing and hunting permits to federally qualified subsistence users for the 2021 season, although permit issuance processes may be adapted to ensure the safety of permit applicants and park staff. Call 907-822-7250 for current information on permits. For general information about subsistence in Wrangell-St. Elias, see the Wrangell-St. Elias Subsistence User Guide at this link: https://www.nps.gov/wrst/learn/ management/subsistence.htm. Specific questions can be submitted to this email address: WRST_subsistence@nps.gov.



New publication about the ethnohistory of the Chisana River basin (above).



Sockeye salmon in brilliant colors (above).

Ethnographic Publication

We are pleased to announce the completion of a new publication entitled An Ethnohistory of the Chisana River Basin. Author Norman Alexander Easton documents indigenous Dineh use of the upper Tanana River basin of the Yukon-Alaska borderlands. After introducing the environmental setting and cultural context, the report focuses on the region's history beginning with the earliest European influences such as epidemic disease and the introduction of trade goods. Among the topics discussed are the **International Boundary Commission** survey in Upper Tanana territory, the Chisana Gold Rush, construction of the Alaska Highway, and the increasing influence of the State of Alaska in its aftermath. The report is the result of collaboration between Wrangell-St. Elias National Park and Preserve and the YukonU Research Center at Yukon University. It is based on archaeological, archival, and ethnographic research and is illustrated with numerous historic and contemporary photographs. Electronic copies are available on the park website at: https://go.usa.gov/xHkcB. If you have questions or would like to request a printed copy, contact wrst_info@nps.gov

Contaminated Site Management The NPS continues to investigate potential cleanup activities at the Nabesna Mine Site and the Kennecott Mines and Mill Town Site pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). In conjunction with these planning efforts, Wrangell-St. Elias intends to issue Community Involvement Plans (CIPs) for the two cleanup sites in early summer 2021. CIPs enable meaningful community involvement throughout the process of designing and implementing cleanup activities. CIPs have two key objectives. The first objective is to provide for the dissemination of information to the public in a timely, accurate, meaningful, and understandable manner. The second objective is to create opportunities and ensure the community understands those opportunities—for active public participation, enabling interested persons to provide valuable comments that can be used by the NPS project team for planning and decision making.



Abandoned Jumbo mine (above).

Fuels Management Projects

The NPS Eastern Area Fire Management Team plans to conduct fuels treatment projects at various backcountry cabins, culturally sensitive areas, and NPS lands adjoining or surrounding Native Alaskan allotments or private lands deemed "full fire protection sites" located throughout Wrangell-St. Elias during the next five years (2021-2025). The

purpose of these projects is to create a safer environment for local residents, visitors, and park staff in the event of wildfire. In addition, these projects will protect historic and culturally significant sites, aid in the suppression of wildfire, reduce the overall cost of fires, and will allow for more instances where wildfire can play its natural role in the environment. Over the five-year period, a total of approximately 153 acres will be treated. Specific sites to be visited will vary from year to year based on the intensity and duration of the fire season. Most work will be accomplished by NPS staff in crews of up to 10 people, but larger projects may require up to two firefighting crews of 20 people each.



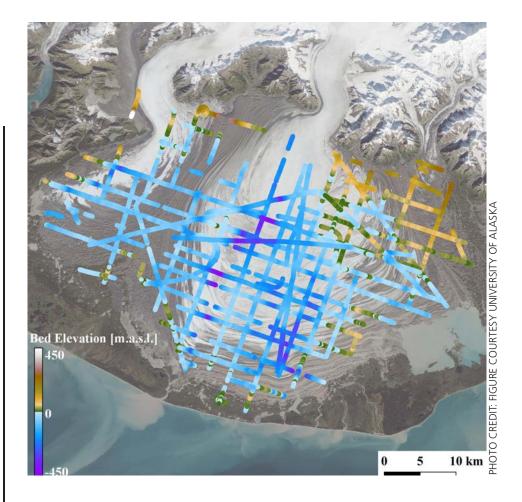
Fuels reduction work completed by Eastern Area and Western Area NPS fire personnel at the park headquarters in 2020 (above).

A Partnership with WISE: Lecture Series
During the past winter and spring,
the Wrangell Institute for Science and
Environment (WISE) has hosted an
online Science Lecture Series on topics
including the Nelchina caribou herd,
migratory birds, archeology, marine
invasive species, and others. WISE
has hosted this wonderful series with
partnership support from WrangellSt. Elias and many other organizations.
For more information, including online
recordings of individual lectures, visit the
following link: http://www.wise-edu.org/science-lecture-series.html.

Malaspina Glacier Research A new 3-year research project begins this year at the Malaspina Glacier. NPS Geologist Dr. Michael Loso, in collaboration with a team of colleagues from NPS, from the University of Alaska Fairbanks, from the University of Arizona, and from the University of Montana, will be conducting fieldwork in summers of 2021-2023 with a goal of documenting the current conditions of Malaspina Glacier. The ultimate goal of the project is to predict the likelihood and timing of a possible catastrophic retreat of the coastal piedmont lobe of Malaspina Glacier, which we already know is bedded well below sea level and could reveal a large new fjord on the outer coast. Fieldwork will mostly be based out of Yakutat, with a remote field camp installed seasonally on the Malaspina foreland beach. Project Principal Investigator Michael Loso will be assisted by Scientists-in-the-Parks intern Anna Thompson, who starts a year-long position with NPS in May 2021. Anna recently completed a Master of Science Degree in Geology at Iowa State University, where she conducted research on the mechanics of subglacial sliding and erosion. A recent presentation by Dr. Loso discusses the Malaspina project, along with some other examples of glacier change along the outer coast, and can be viewed at https://www.youtube.com/watch?v=-LDhyAepRnQ. For more information



contact wrst_info@nps.gov



Color-coded elevations of the bed of the Malaspina Glacier. These data, collected by ice-penetrating radar from a fixed-wing aircraft, show that most of Malaspina Glacier will be replaced by a large coastal embayment, or fjord, when it melts away (above). ("m.a.s.l." = meters above sea level)

Additional Parkwide Research Information

- Research in the Park Webpage: https://www.nps.gov/wrst/learn/research-in-the-park.htm
- NPS Central Alaska Inventory & Monitoring Network: https://www.nps.gov/im/cakn/index.htm
- NPS Southeast Alaska Network: https://www.nps.gov/im/sean/index.

 htm

For more information, contact: the Team Lead for Resource Stewardship and Science, wrst_info@nps.gov

WRST trail crew member Charlie Ebbers, in September 2020, participating in monitoring work on Kennicott Glacier. He is standing next to an ablation stake that measures cumulative summertime melt. Research will continue this season on the Kennicott Glacier project (left).



Lands and Planning Updates

Park Planning and Land Management Internship Program

We are excited to announce the 2nd year of an internship program in partnership with the National Park Service and Prince William Sound College (PWSC)! Internships are designed to expose students to careers in natural resource management and park planning. The intern will work directly with the Park Planner at Wrangell-St. Elias National Park and Preserve, located in Copper Center, AK. This year's intern, Sarah King, is pursuing her Associates Degree in Applied Science in Outdoor Leadership from Prince William Sound College in Valdez. She hails from New Jersey and is excited to immerse herself in the great outdoors of Alaska. For more information contact: the Park Planner, wrst_info@nps.gov



The lands/planning intern collects data on trail conditions on Caribou Creek trail in 2020 (above).

Narcissus-flowered anemone blooms along the Kennicott and Gates Glaciers (above).

Kennecott Planning

The Kennecott Operations Plan is our primary planning document for management of the Kennecott Mines NHL. The plan directs us, once every five years, to initiate a review and seek full community input in advance of adopting revisions. Changes have occurred and management issues have arisen in Kennecott that should be included and addressed in an updated management plan. The public engagement process for the review and revision of the plan began in 2018. We plan to continue seeking public comments on a number of topics including but not limited to the following: Visitor use patterns and motorized access, the Architectural **Control Committee and Kennecott** Covenants, the proposed foot trail on the east side of the Kennicott River from McCarthy to Kennecott, the community involvement plan as a part of the CERCLA process, and the Kennicott Glacier interpretive plan. The goal in updating the plan is to create one comprehensive guidance document for park managers to utilize as the primary site management tool, and to further clarify the management goals and actions for the next phase of Kennecott management. This process will be guided with extensive public involvement. More information, contact: wrst_info@nps.gov

LiDAR Acquisition

This summer the NPS will be collecting four-band (NIR, R, G, B), 30 cm resolution orthoimagery and two quality levels of light detection and ranging technology (LiDAR) data within a portion of Wrangell-St. Elias National Park and Preserve located in the North District of the park near Slana and Nabesna. This project will be implemented through a contract with Ahtna-Merrick Joint Venture, LLC, a company specializing in engineering, LiDAR, photogrammetry, survey & mapping that has regional experience in Alaska. High resolution digital elevation models produced by LiDAR lidar technology and remotely sensed imagery are used by the inventory & monitoring program to produce science-based assessments of natural resource conditions and trends. New LiDAR and orthoimagery will assist upcoming land use planning and environmental compliance efforts within the park, and it will help facilitate cultural resource detection and infrastructure development. Acquisition of these geospatial products will also increase the understanding of geologic dynamics, glacier monitoring, and geohazards/landslide risks, and in general provide a geospatial foundation for natural resources and cultural resource management decisions. For more information contact the Chief of Lands and Planning, wrst_info@nps.gov

Issuance of Right-of-Way Certificates of Access

The Lands and Planning division continues to work with private landowners to evaluate access over NPS lands to private inholdings as mandated through ANILCA 1110(b). For more information contact the Chief of Lands and Planning, wrst_info@nps.gov



Pictured above is the SX10 terrestrial LiDAR Scanner used on Lost Creek in 2020.

Nabesna Trails Planning

Wrangell-St. Elias National Park and Preserve has received funding for two projects that will be looking at design and feasibility of two trail locations off the Nabesna Road: 1) Caribou Creek – connector trail from the parking area to the trail; 2) Jack Lake – access trail for the public that may start around the Kendesndii Campground. For more information contact the Park Planner, wrst_info@nps.gov



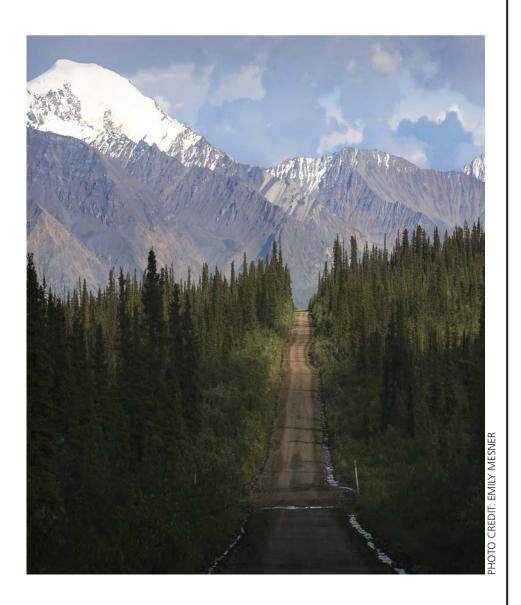
Trail Creek in full fall foliage (above).

Abandoned Mine Lands Hazardous Site Reconnaissance

Park staff will be visiting a number of abandoned mine sites throughout the park to evaluate hazards and taking appropriate actions to ensure visitor safety. Sites will be accessed via helicopter. For more information contact the Chief of Lands and Planning, wrst_info@nps.gov

Visitor and Resource Protection Updates

Staffing Updates and Information The North District has two new faces to the park: North District Ranger, Alexander Whitten, who was here last summer, but we haven't officially introduced him as the newest permanent member to the Visitor and Resource Protection (VRP) staff. Alexander comes from Thomas Edison NHP where he was the Chief Ranger. His summer seasonal law enforcement hire Aaron Luckert joins us from Glacier NP. The South District visitor and resource protection ranger staff includes familiar faces of Stephens Harper as the South District Ranger (and SAR program coordinator) and Elizabeth Schafer as the South District General Park Ranger. It is important to note with the retirement of Jim Capra from the Yakutat District, Stephens Harper will be in an acting role as the Yakutat District Ranger covering both the South and Yakutat Districts.



The long and winding road, the Nabesna Road, in the North District of the park (above).



South District Ranger Stephens Harper (left) and Kennecott District Ranger Sharon Tingue (right) patrolling the Kennecott area (above).

South District and Kennecott Area The South and Kennecott District visitor and resource protection ranger staff includes familiar faces, both new and returning rangers: Elizabeth Schafer, Jon Cooperman, Sharon Tingue and Stephens Harper as the returning staff and new to NPS realm here at Wrangell-St. Elias but familiar to the community, we want to welcome Spencer Williamson and Julian Hanna. Sharon continues to be the Kennecott District Ranger and Stephens will continue to be the South District Ranger stepping out of the Kennecott Unit Manager acting assignment as Mark Miller and Joshua Scott step into the Kennecott Management Assistant roles for this season. Another familiar face is Nyssa Landres, park Wilderness Coordinator, will be helping with Kennecott and South District VRP operations for the summer and is our deputy SAR coordinator (Stephens Harper is the primary for SAR coordination for WRST). Protection rangers provide emergency medical, search and rescue, public use management and law enforcement services. Rangers place an emphasis on enforcement of regulations and education of practices that protect visitor safety and public resources. This summer you will see our ranger staff out and about while you enjoy your public lands.

Volunteer Help

Wrangell-St. Elias has relied on volunteer support to bolster some of the emergency services functions specifically in the realm of Search and Rescue (SAR), EMS and backcountry patrols in our vast park. A special thank you to all the community members that have volunteered time and energy to help us accomplish our visitor and resource protection roles, you are a valuable asset, thank you!



The Wrangell-St. Elias Search and Rescue (SAR) Team in 2018, meeting for their annual "sign-up" day for volunteers joining the team.

How to Reach Out

As always, to report an emergency or violation on NPS managed land call 907-683-2276. This number reaches our 24/7 NPS dispatch. Please only call them to report an emergency or violation. NPS rangers often respond to emergencies outside of NPS areas, but do so at the request of other agencies. For law enforcement issues on private land call 911. For more information: wrst_info@nps.gov



The Wrangell Mountains near Hidden Creek Lake area (above).

Tupperware Sustainability Project Tupperware Brands Charitable Foundation, the nonprofit arm of **Tupperware Brands and the National** Park Foundation announced their collective contribution to support the National Park Service in diverting nearly 10 million single-use plastic bottles from landfills through the installation of water bottle refill stations in national parks, while enhancing infrastructure and education to support composting and recycling in parks. Wrangell-St. Elias National Park and Preserve has received some of this funding for a project to install additional water bottle fill stations and hire a sustainability intern to write a recycling plan for the park. For more information, visit https://www.nationalparks.org/.



Mount Blackburn from Willow Lake (above).

Concessions Management Updates

Commercial Use Authorizations

Park staff have been busy reviewing Commercial Use Authorizations (CUAs) for a variety of guided services such as backpacking, hiking, boating trips, etc. as well as unguided trips with air taxi operators. From the number of applications received so far it appears operators are optimistic about being able to provide more services to the visiting public this season. The application window for CUAs runs from November 1 through April 30 each year.

Sport Hunting Guide Contracts

This year marks the second year of a tenyear contract cycle for the park's sport hunting guides. Fifteen guide use areas (GUAs) are currently under contract. The Malaspina GUA did not receive any proposals during the last prospectus process but will be re-advertised in the future. Three of the 15 GUAs were sold/transferred over the winter, so there are two operators that will be providing this service. Gilahina River GUA (formerly owned by Kelly Vrem, Rough and Ready Guide Service, Inc.) was purchased by Aaron Bloomquist of Full Curl Outdoors, LLC. The Chisana River and Snag Creek GUAs (formerly owned by Jeff Chadd, Majestic Mountain Outfitters, Inc.) were purchased by Cabot Pitts of Alaska Wild Wind Adventures, Inc.



Bumble bee approaches a fireweed flower (above).



St. Elias Alpine Guides provided Mill Town Tours in 2020 with COVID-19 mitigations (above). They will be providing tours again this year.

Mill Town Tour Concessions

St. Elias Alpine Guides is in year eight of a ten-year contract to provide guided tours of historic buildings within the Kennecott Mines National Historic Landmark. The concentration mill, which is a popular destination on this historic tour, is still undergoing rehabilitation this year, but will be accessible for tour groups to explore.

Leasing the Kennecott Recreation Hall Wrangell Mountains Center (WMC) signed a five-year lease last year with the National Park Service (NPS) to host community events and gatherings in the Kennecott Recreation Hall that are consistent with historical purposes. For a list of these events contact wrst_info@nps.gov

The NPS looks forward to working with all of our CUA operators, Concessioners and Lease Holders this summer to provide our visitors with a safe and enjoyable experience in the park. For more information, contact wrst_info@nps.gov



Other Updates

Locals Listserv Now Available
There's always so much going on that we'd like to share with you all! Now we have the ability to share our updates and news with you in an easy, electronic fashion. The "Locals Listserv" is a way for you to "opt-in" to an email listserv and receive updates from the park periodically. The purpose of the Listserv is to keep our neighboring communities connected though timely information about the park. Listserv subscribers will receive emails periodically throughout the year as significant events emerge or project highlights unfold.



Windflower is one of the first flowers to bloom in the spring (above).

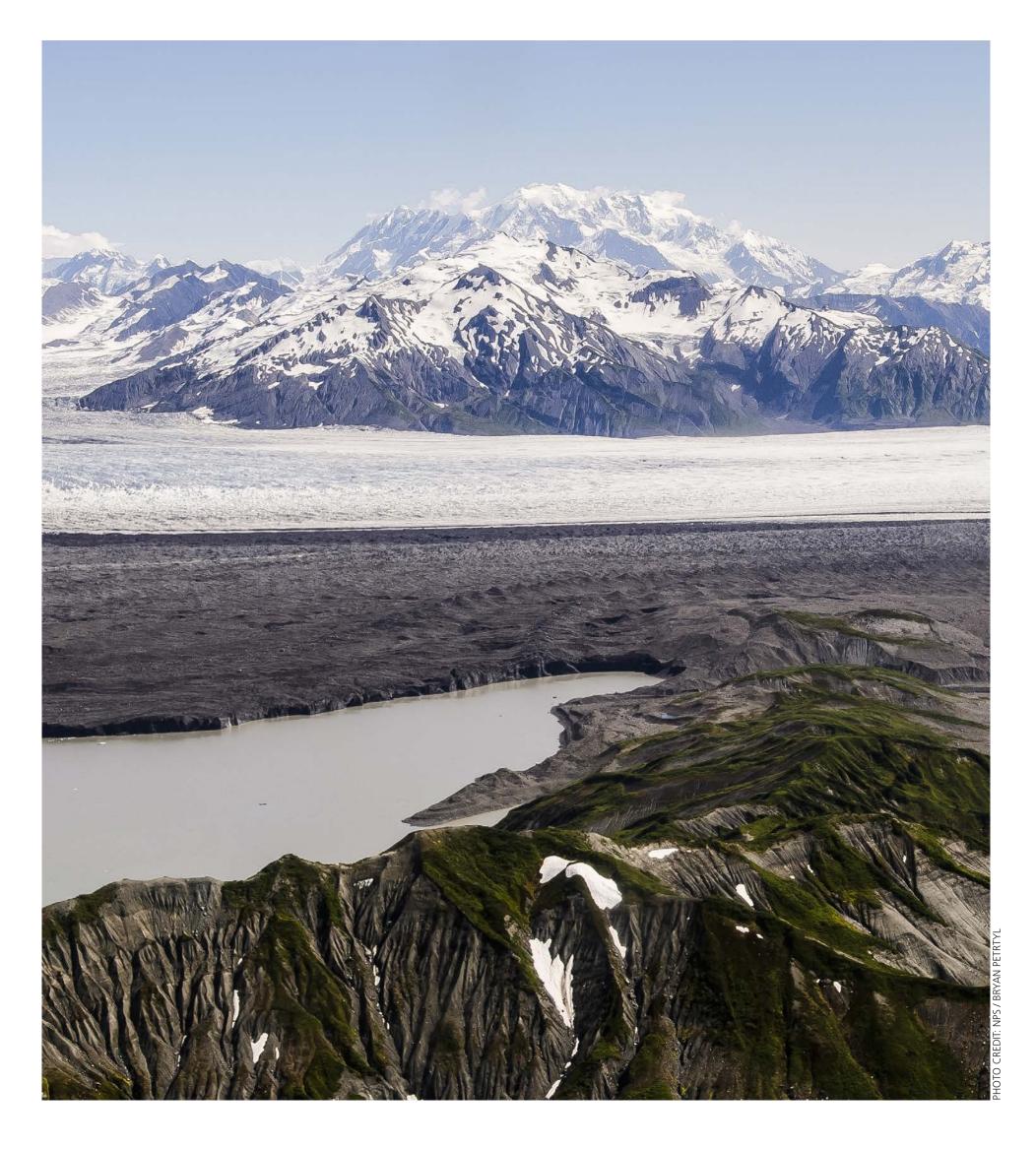
Dall Sheep traverse the rocky mountainsides (above).

Emails may include community newsletters and information about park scientific research, events, and public meetings.

If you would like to join the Locals Listserv, send us an email at wrst_public_affairs@nps.gov. Put "Locals Listserv" in the subject line and include your name, email address, and if you have an organizational or business affiliation (optional).

Spread the word! Your friends can sign up for the Listserv, too. Please share this information with others that may be interested in updates. We look forward to this opportunity to engage with park stakeholders and neighbors.

We hope you and yours stay well and that you have a fun summer enjoying Wrangell-St. Elias National Park and Preserve!



Agassiz and Malaspina glaciers (above).