



Forest Service  
U.S. DEPARTMENT OF AGRICULTURE

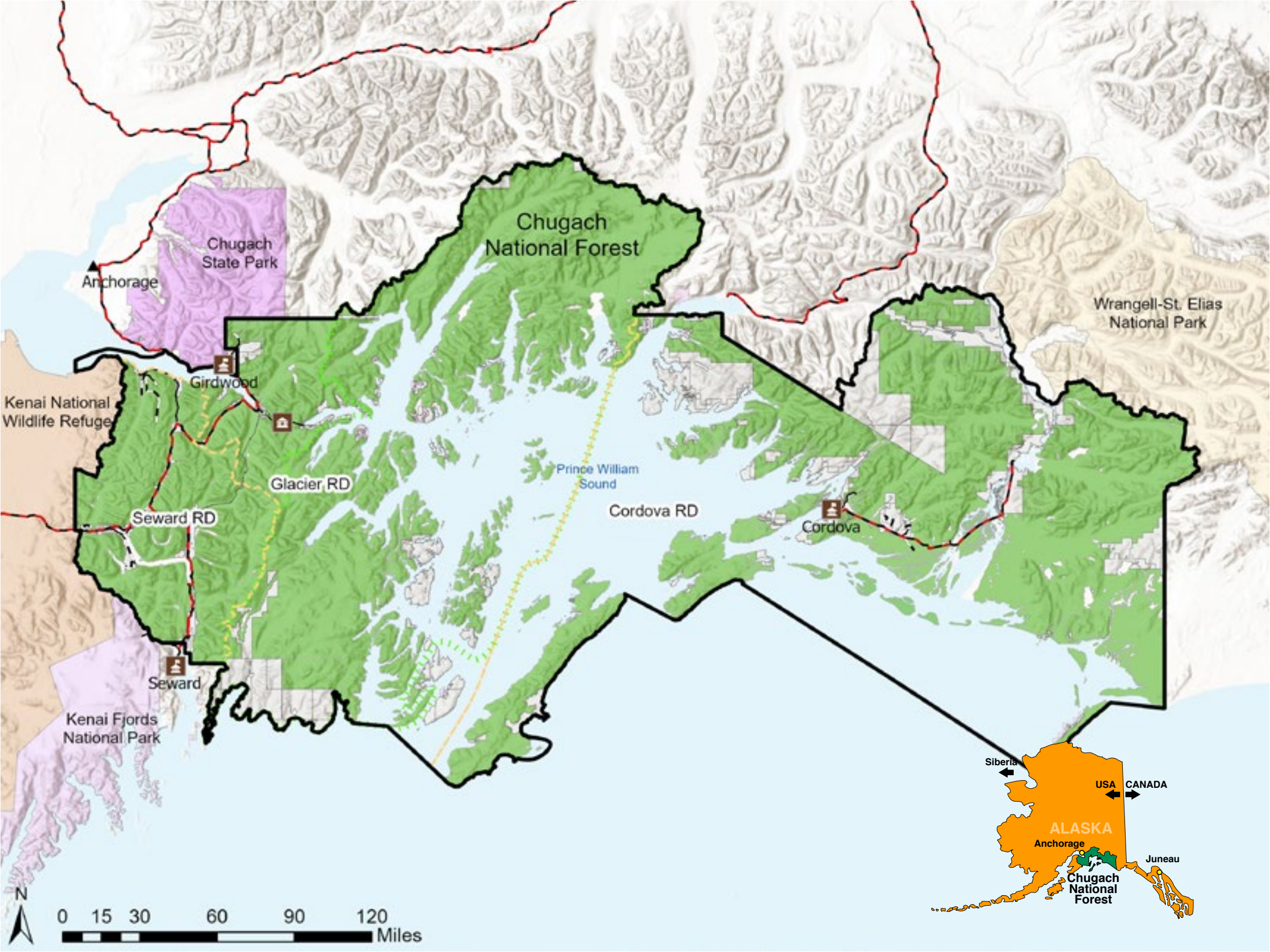
Alaska Region | R10-RG-250 | March 2021



CHUGACH  
NATIONAL  
FOREST

ANNUAL  
REPORT  
2020





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# *D*ear Friends of the Chugach

Who has ever experienced a year like 2020? It seems everything changed in an instant. The pandemic hit and all of a sudden offices were empty and we were working from home, adjusting overnight to the unique challenges of online meetings, social distancing and mask-wearing. All this at the same time we fulfilled our mission of serving the public and their increasing use of public lands.

There was an unprecedented demand for spaces where people could get outside and exercise and just spend time with their families. Our partners stepped in to help a skeleton crew of recreation staff open campgrounds and picnic areas nearly a month early. People saw how important the Forest was to them.

The idea that beloved annual events were cancelled was disappointing for the public, volunteers and employees, so with the help of our partners, we explored and developed virtual programs to bring celebrations to all of those hungry for a connection.

It turns out that hiring out-of-state seasonal staff during a pandemic is a challenge, so we concentrated on local hires to complete our summer resource projects, engineering, facility cleanup and repair, and trail maintenance. During the pandemic we played a key role, supporting local communities and economies and supporting hundreds of jobs.

Over the last year, the Chugach National Forest and partners proved that they are a strong, resilient group who have overcome an unprec-

edented set of obstacles. This annual report shows some of the tremendous work that was done in 2020 and illustrates what I have always known - you can put stumbling blocks in our way, but you can't stop us.

I express my sincere gratitude to all Chugach National Forest employees, our partners, stakeholders, and the public, for their resilient attitude, and for all they accomplished in 2020. I look forward to 2021 and employing the things we learned this past year.

Jeff Schramm  
Forest Supervisor  
Chugach National Forest



*Welcome to the  
Chugach National Forest*

## FOREST LAND MANAGEMENT PLAN

Forest Supervisor, Jeff Schramm, signed the record of decision (ROD) approving the 2020 Chugach National Forest Land Management Plan on April 16, 2020. The Plan went into effect a month later. All project and activity planning, special uses permitting and NEPA documents and decisions must now be consistent with the [2020 Land Management Plan](#).

The Forest began plan revision in 2012 as one of eight early adopters of the 2012 planning rule chosen by the Washington Office. The process took seven years and two months and we are the fifth forest to complete a plan revision under the 2012 planning rule.

In November, the Forest Supervisor approved the first administrative change to the 2020 Land Management Plan after it was discovered that approximately 35 acres of National Forest Service land at Trinity Point near Whittier were not included in the Plan. The administrative change assigned the lands to the National Forest Service and designated it as a frontcountry management area.

A second edition of the Plan will be printed in 2021, incorporating the Trinity Point administrative change and changes made in response to the objections process.



## FIRE INFO 2020

The Chugach National Forest fire program had an abnormally slow year in 2020 due to above-normal precipitation and cooler temperatures. These conditions led to low to moderate fire danger indices across the Forest with only a few days reaching high to very high.

These conditions allowed the Forest to send primary and militia fire resources to support efforts in the interior of Alaska and the lower 48. The onset of COVID-19 complicated resource availability and mobilization, but thanks to an extensive local and geographic planning effort, several best management practices were analyzed and implemented to reduce the overall risk of exposure. The Chugach NF dispatch center supported the mobilization, tracking, and accountability of field-going employees despite nearly every employee teleworking. The dispatch center was busier than average due to district offices closing and the severity of the lower 48 wildfire season.

Aviation operations remained minimal in 2020 but several essential missions were completed in order to support the Forest Service's Land and Mobile Radio program and Swan Lake fire suppression trail repair.



## YOUR MISSION: REDUCING FISH BARRIERS

With a new year and completion of the Chugach National Forest Land Management Plan in 2020, the Aquatic Organism Passage Program is a priority for the Regional Forester and listed as a Forest Active Management Initiative by the Chugach Forest Supervisor. The mission: to work toward the lofty goal of a forest that is barrier free, so that all fish and other aquatic animals can freely move up and down all creeks, streams and rivers.



To meet this substantial goal, the Chugach is focusing on completing a forest wide structure inventory (bridges, culverts, etc.) and developing Forest priorities for culvert replacements for the first 5-10 years of this effort in cooperation with agency and independent organization partners. With the established priorities and forest plan guidance, the program will efficiently and effectively replace structures that act as barriers to aquatic species with functional structures that allow the natural passage of aquatic species within a stream channel.

In 2020 the Prince William Sound Zone Copper River Watershed Enhancement Partnership received high honors - the [2020 Chief's and Under Secretary's Honor Award](#)! Over time, their collaborative work is

actively restoring the productivity of National Forest Lands. This year, three of the 13 under-sized culverts that actually hindered fish passing through them were replaced on the Copper River Delta. Together we are on our way toward the goal of 22+ miles of accessible salmon spawning and rearing habitat

In the Kenai Peninsula Zone, the work will continue to be focused on completing an inventory of all forest road structures including culverts that block aquatic organism passage. The current inventory began in 2019, was delayed in 2020, and is now set for completion in 2021 with surveys to be conducted by forest engineering and resources staff, assisted by a National Fish and Wildlife Foundation grant funded Alaska Native Science and Engineering Program fisheries student for the summer.

While COVID-19 was a bit of an obstacle to getting field work done in 2020, the Chugach National Forest looks forward to removing barriers that restrict the movement of aquatic organisms in the future!

[Learn More...](#)





## ECONOMICS 2020

Perm employees.....	110
Temporary/seasonal employees.....	100
Chugach NF 2020 Budget.....	\$21 million
Contracts and Services.....	\$1,770,236
Grants and Agreements.....	\$554,210

## VOLUNTEERS

On Chugach NF (includes International).....	79
Partnership & Organization Agreements.....	13
Total Volunteers & Service Participants.....	92
<b>Total Hours .....</b>	<b>4274</b>

## VETSWORK

VetsWork is an 11-month career development internship program for military veterans interested in careers with natural resources management, public lands and the environment. Participants are placed at local, state, and federal land management agencies where they provide project support while learning about various career paths.

Cordova Ranger District  
Forestry Technician  
& Natural Resources Specialist

Supervisor's Office  
Engineering Fleet

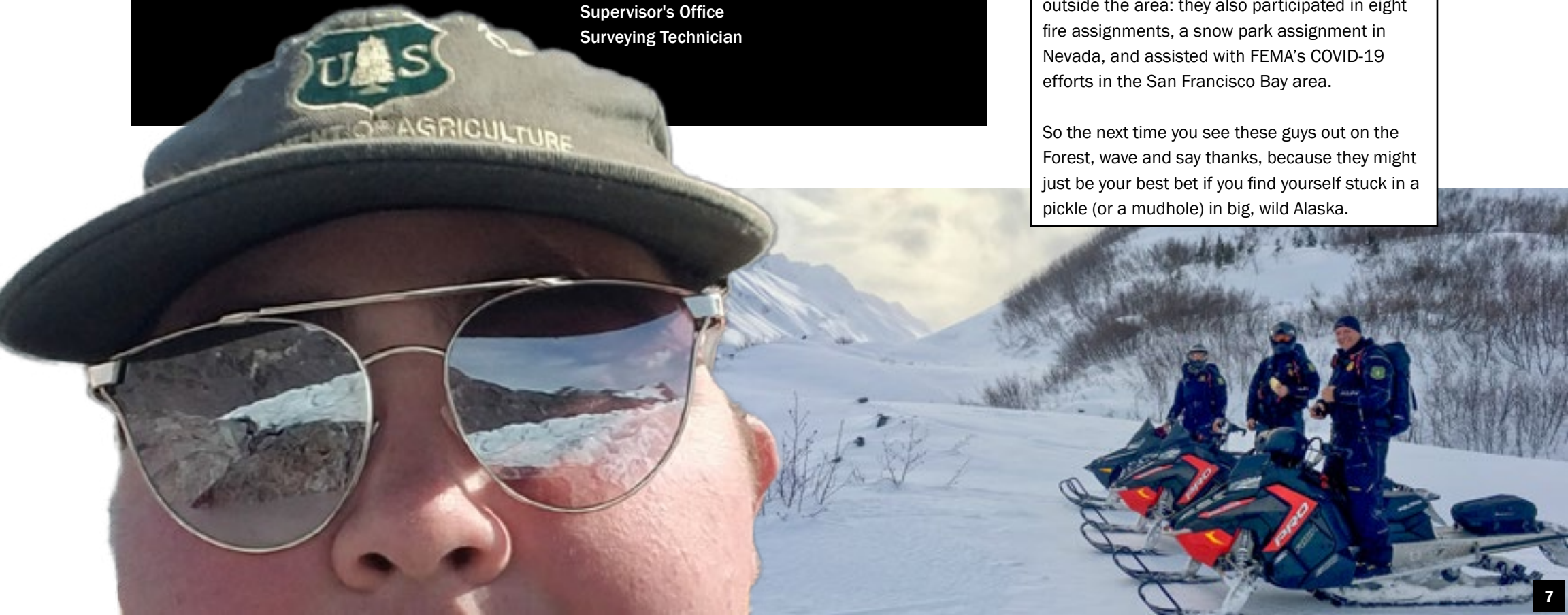
Supervisor's Office  
Surveying Technician

## WHO YOU GOING TO CALL?

If you answered “Ghost busters!” you're probably still waiting. You're better off calling Chugach National Forest Law Enforcement and Investigations (LEI) if you have trouble on the trail.

More than 400 incidents, from search and rescue to unlawful activities, were called in from around the Forest in 2020. Forest Service LEI helped to coordinate or assist in 27 search and rescue missions, and often were the first responders on scene. LEI led multi-agency patrols at 20 Mile River and Russian River, and for Prince William Sound bear, deer, goat and Federal Subsistence Moose hunts on the Cordova District. LEI doesn't stop helping when duty calls outside the area: they also participated in eight fire assignments, a snow park assignment in Nevada, and assisted with FEMA's COVID-19 efforts in the San Francisco Bay area.

So the next time you see these guys out on the Forest, wave and say thanks, because they might just be your best bet if you find yourself stuck in a pickle (or a mudhole) in big, wild Alaska.





In 2020, a cooperative project was initiated to treat a 15-acre Reed Canarygrass (*Phalaris arundinacea*) infestation along a powerline corridor near Cooper Landing on the Kenai Peninsula. The powerline had been used as a fuel break during the 2019 Swan Lake Fire, spreading established reed canarygrass already identified for treatment. The infestation's close proximity to a prized salmon fishing site on the Russian River made treatment a high-priority. A partnership between the USFS, Homer Electric Association, the Homer Soil and Watershed Conservation District, and the Kenai Watershed Forum made this project possible.

Elodea is the first invasive aquatic plant established in Alaska and through flooding and floatplanes has spread to major water bodies, ponds, and side sloughs across the Copper River Delta. The Forest, in collaboration with researchers at USFS Pacific Northwest Research Station, Loyola University, U.S. Geological Survey, and University of Notre Dame continues to study the effects of several small-scale herbicide treatments on native aquatic plants, macro-invertebrates, water chemistry, and fish. The collaborative project will continue until 2021, and post-treatment monitoring until 2022.

This year the Anchorage Weed Smackdown was done virtually and people documented their efforts on social media to promote invasive species awareness. Although the number of participants was below a normal in person smackdown, the event generated buzz on social media and promoted invasive plant information to a wider network of people.

Through cooperative work with partners on outreach and messaging we continue to help prevent the spread of plant and animal invasive species.

## STOPPING THE INVADERS!



photo credit: Maura Schumacher, Kenai Watershed Forum





## SUBSISTENCE

The management of National Forest lands for subsistence uses plays a vital role in the health of rural Alaskan communities by ensuring fish and wildlife populations are available to provide a reliable food supply for residents. The national forest provides an average of 203 pounds of fish and wildlife, valued at \$812.00 to \$1,624.00 per person per year, for qualified rural residents. In 2020 the community of Moose Pass was designated rural, qualifying the residents to take part in federal subsistence harvest on federal lands within the Chugach National Forest.

### 2020 ACCOMPLISHMENTS

- Completed the sixth year of a [black bear monitoring project](#) with Alaska Department of Fish and Game
- Completed deer surveys and population surveys for moose and mountain goats

- Moose Pass was granted rural status by the Federal Subsistence Board
- Analyzed a Special Action Request and Regulatory proposal for a dipnet fishery in the lower Copper River and presented results to the two Regional Advisory Councils and the Federal Subsistence Board

### SUBSISTENCE PERMITS ISSUED PRINCE WILLIAM SOUND ZONE

Moose .....	71
Mountain Goat .....	5
Salmon.....	91

### KENAI ZONE

Moose .....	45
Caribou .....	41
Mountain Goat (new hunt).....	2

## OUTFITTER AND GUIDES

The Forest has 144 recreation permits. The Chugach National Forest accepted new applications for Outfitting and Guiding on the Forest from July 1, 2020 through September 30, 2020.

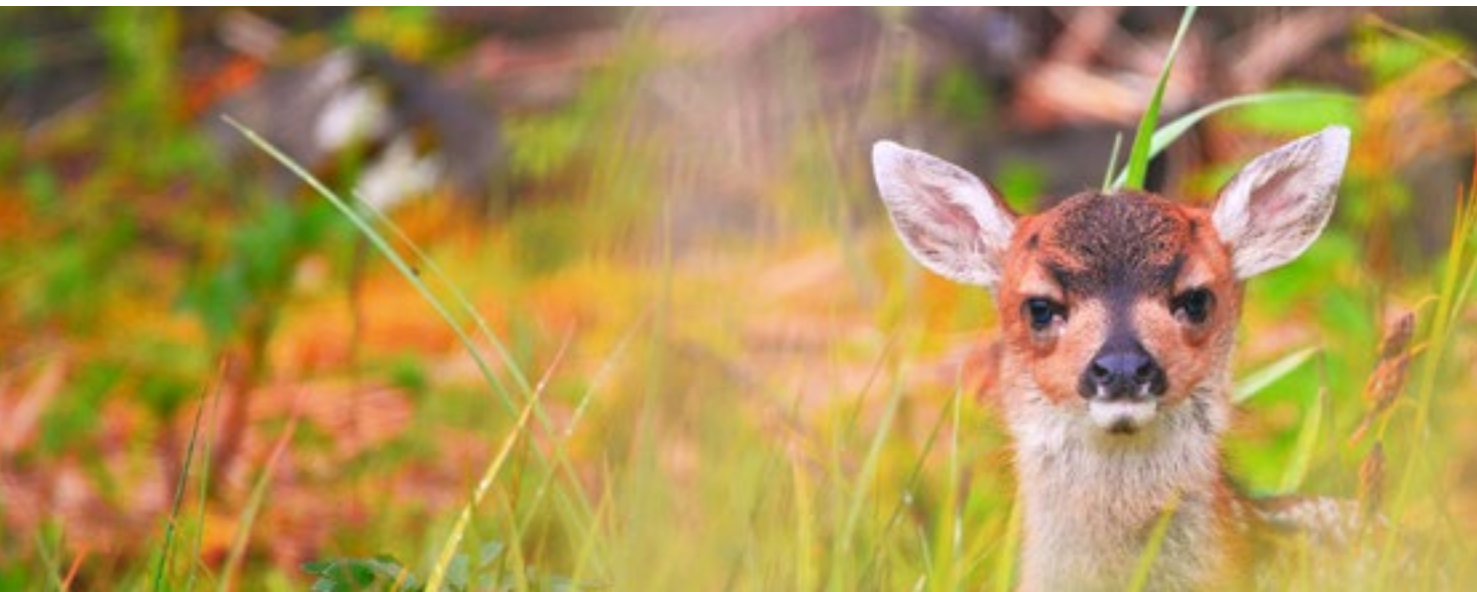
The opportunity for limited activities was for operations beginning in 2021 and open to companies not already permitted on the Forest.

Newly accepted applicants received two-year priority use permits with an option to extend for an additional eight years if permit holders receive successful performance evaluations.

A total of 15 applications were accepted for hiking, camping, fishing, ski touring, dog sledding, biking, rafting and paddle sports.

### PERMITTING ON THE FOREST

Outfitter and Guide Permits.....	119
Other recreation permits .....	25
Land Use Authorization.....	132





# F O R E S T O U T R E A C H

It isn't just the public that loves all the Chugach's yearly festivities and activities. Forest employees also look forward to sharing their expertise with enthusiastic audiences.

Most of our most popular events were adapted to connect participants in a virtual or social distanced environment. We expanded our definition of event and connected with new audiences through a variety of online tools.

**Here is a sampling of our 2020 outreach and community events.**



## FUNGUS FESTIVALS

Cordova and Glacier districts joined forces with Bureau of Land Management's Campbell Creek Science Center to host a virtual event, dubbed the "Gird-ova" Fungus Festival. The four-day festival was packed with virtual discussions, art projects and activities. Participants were encouraged to explore the northernmost coastal temperate rainforest's fungal diversity on their own or with virtual forays led by knowledgeable fungophiles from across the Forest.

[Learn more...](#)



## iTREC!

Iditarod Trail to Every Classroom - iTREC! celebrated the completion of ten successful years of the program. The yearlong professional development program that provides teachers with place-based service learning skills finished the 2019-2020 programming with a virtual session. An extensive webinar series was created for the 2020-2021 program.

[Learn More...](#)



## STORYTELLING IN AMERICA

The Forest worked with Environment for the Americas to bring bird-themed books to young readers. Popular children's books about birds were read to audiences across the country. Families were invited to participate in a craft project or activity and to ask Chugach National Forest bird experts questions.

[Learn More...](#)



# A C R O S S T H E F O R E S T



## KIDS FISHING DAY

Usually held in early June Kids Fishing Day gets kids and families back into the fishing frame of mind. This year, we used a week-long social media campaign to cover fishing basics, from knot tying and casting to, fish identification, angler ethics and shared a video with fishing hot spots on the western Kenai.

[Learn more...](#)



## OUTDOOR SCHOOL

In Fall of 2019, Begich, Boggs Visitor Center hosted the second pilot program of Anchorage Outdoor School. The program is focused on cultivating life-long stewardship of public lands in Alaska through residential, place-based outdoor education for 5th grade students in the Anchorage School District. Anchorage Outdoor School is a partnership between the Kenai Mountains Turnagain Arm National Heritage Area and several partners including the Chugach National Forest.

[Learn more...](#)



## BECOME A SECRET AGENT

The Agents of Discovery smartphone app allowed us to continue to reach our audiences even when we couldn't be with them in person. Staff used the flexibility of the app to update or create new content for the Forests two mission sites in Portage Valley and on the Copper River Delta. Upgrades to the app allowed for even more flexibility this year as sites were able to create "at home" missions that kids could play anywhere.

[Learn more...](#)



# *Cordova Ranger District*





## **TAKING “VIRTUAL” TO A NEW LEVEL**

The Copper River Shorebird Team used Facebook and the Copper River Shorebird Festival website to connect with current registrants as well as past attendees. Attracted by the updated, live online content, more than 25,000 participants were reached and 11,600 were engaged.

The challenges posed by switching to a virtual festival were extensive, but the Copper River Delta Shorebird Festival team rose to those challenges and exceeded the Team’s expectations. Many of the lessons learned will be folded into upcoming Shorebird festivals, making the wonder and spectacle of migration and the Copper River Delta available to a worldwide audience.

As one of the first events on the Chugach National Forest to pivot to an online presence, this virtual festival was used as a template for virtual online learning by other Chugach National Forest units and partners.

As vaccines are administered and in-person gatherings return, Forest Service programs will undoubtedly move back to in-person events when conditions are safe. Yet, as this successful Chugach National Forest event illustrates, employees in the Alaska Region have discovered new tools for delivering fresh content to larger audiences that may even outlast a pandemic!

**Find out more about the  
[Copper River Delta Shorebird Festival...](#)**

## **COPPER RIVER DELTA SHOREBIRD FESTIVAL**





## VEGETATION MAPPING

Maps of existing vegetation support land management planning efforts. As an example, resource managers use vegetation maps for monitoring and evaluating wildlife habitat used by species like moose, mountain goat, dusky Canada geese, and others. These maps also provide baseline vegetation information to help managers understand the current conditions as they work on land management and forest planning, ecosystem assessment, recreation management, and climate change analyses.

In 2020, vegetation mapping on the Chugach National Forest was focused on the Cordova Ranger District. 728 sites were mapped in 2020, a high

number given the challenges of field work during the COVID-19 pandemic.

Building on earlier mapping projects, the end result will be a seamless product across all landscapes and ownerships on the Forest. This regionally coordinated effort relies on the expertise of the Geospatial Technology and Applications Center (GTAC), agency partners, and staff ecologists. Final map layers will include vegetation dominance type, diameter class and canopy cover for forest types, and tall shrub canopy cover.

Previously completed mapping projects include the Copper River Delta (completed in 2013) and the Kenai Peninsula (completed in 2019). A detailed overview of the mapping process and associated mapping products can be found in the final [Story Map for the Kenai Peninsula](#).



## CORDOVA DISTRICT OFFICE & MARINE WAREHOUSE ROOFING

The Cordova Ranger District replaced the water damaged and leaking District Office and Marine Warehouse roofs in 2020. The project was critical to ensure the structural integrity of the two buildings. The district office is an historic building on the National Register of Historic Places requiring additional considerations. The work was scheduled prior to the onset of the pandemic.

COVID-19 restrictions and mitigations required by both the Forest Service and local community added challenges. Early and continuous communication and planning were key to the successful reroofing of more than 5000 square feet while protecting the historic nature of the district office.





## **VIRTUAL FIELD TRIP 2020**

In February, employees from the Cordova Ranger District and Prince William Sound Science Center (PWSSC) presented a virtual field trip to approximately 120 first grade students from Apex Elementary School in Apex, North Carolina.

In anticipation of the trip, the first-grade students researched five Alaskan animals: moose, brown bears, sea otters, harbor seals, orcas, along with a handful of marine invertebrates.

The Forest Service Marine Warehouse dock, located in the city harbor, provided a spectacular backdrop for the Cordova crew's presentation. Students were treated to the occasional glimpse of sea otter, eagle, and harbor seal in real time as they watched from their North Carolina classroom.

## **SEED BANK**

Cordova Ranger District Staff created an inventory of native seeds from a variety of easily propagated herbs and grasses that are ecologically sound additions for restoring areas on the forest. This seed bank can be used in areas where development activities require rapid regrowth of native plant communities to stabilize soils and prevent the introduction of invasive species. Eleven species were collected in 2020 across a variety of habitats commonly found near the Copper River Delta.

## **DUSKY CANADA GOOSE HABITAT ENHANCEMENT**

The Dusky Canada Goose population has declined significantly over the last 35 years. Nearly all Dusky Canada Geese nest on the Copper River Delta, creating a significant conservation responsibility for the Forest. The geese are listed as a Species of Conservation Concern in the Alaska Region. Management involves agencies across Alaska, Oregon, Washington, and Canada in partnership with Ducks Unlimited. In 2020 district staff made a presentation to the Pacific Flyway Council on Nest Island and tree removal projects on the Forest. Staff maintained 126 artificial nest islands, monitored 375 nest islands, installed one nest island, placed cameras on 11 nest islands for improved monitoring and improved 892 acres of habitat.

The Forest Service is looking at new ideas for managing quality habitat conditions in high-density nesting areas on the Copper River Delta and is also evaluating a project to reduce aerial predation.

[Learn More....](#)





## HELI-SKIING

Heli-skiing (guided helicopter supported skiing) is a very popular sport on the Chugach National Forest. Cordova Ranger District issued three temporary (1-year) permits to guide companies for the 2020 winter season and then again issued three more for the 2020/2021 season while preparing a heli-ski prospectus (a request for competitive applications for long-term special use permits).

Outfitters and guides were invited to participate in the prospectus from November 2020 to January 2021. The district looks forward to moving this effort forward in 2021.

[Learn about the project's Environmental Assessment](#)

[Learn more about the Cordova Heliski Prospectus](#)





### **THE PARKING LOT...**

Due to a replacement of the Work Center water system, large sections of asphalt were removed from the vehicle parking/field operations staging areas. Without pavement, the area became rutted and muddy. Maintaining a paved area is essential for crews to successfully accomplish critical work on the District. The Work Center parking lot was repaved with a 2" compacted thickness asphalt overlay. The estimated area of existing asphalt within the Work Center is 18,495 SF. The contractor re-graded and compacted gravel areas to be smooth, flat, and flush with surrounding asphalt, then paved over with the overlay.



### **PWS BLACK BEAR MONITORING PROJECT**

Monitoring and data collection for the Prince William Sound Black Bear Monitoring Project continued in 2020. The monitoring project, a partnership between Chugach National Forest Subsistence program and the Alaska Department of Fish and Game, began in 2016 to study the dramatic declines in black bear harvest in Prince William Sound. The primary goal of the project is to evaluate habitat use, particularly the use of shoreline habitats where bears are most vulnerable to hunting pressure. Ninety-six bears were captured over three field seasons, with 53 satellite/GPS collars deployed. Monitoring and data collection will continue through fall of 2021.





# *Glacier Ranger District*





## MAKING SOMETHING GREAT BY TAKING SOMETHING AWAY

Usually words like “extract” or “remove” mean “to take away.” At Freestone Ponds contractors and individuals are “taking away” gravel for local construction projects and helping to make the area into an amazing fish, wildlife and recreation area.

Working with those interested in acquiring gravel, the Chugach National Forest Minerals, Glacier Ranger District Recreation, and Kenai Peninsula Zone Aquatic programs collaborated and completed a combined gravel pit operation and reclamation plan for the entire Freestone Ponds project area.

Eleven “free use” contracts were provided to the general public for projects such as 4,500 tons of gravel for driveway improvements. Nearly 6,700 tons of gravel were sold to seven private contractors. 2020 was also notable because the private company responsible for the Seward Highway road reconstruction, Granite Construction, completed their third and final year of gravel removal operations as well as all reclamation requirements within their permitted project area at Freestone Ponds. In total over 300,000 tons of gravel were used to complete this phase of highway reconstruction.

The Freestone Ponds area will also provide for new wetlands. Forest Staff successfully identified this as an area to create wetlands

in response to those lost to the [Portage Curve Multimodal Trail](#). The planned reclamation will include contouring steep side-slopes, re-vegetating sites, and dealing with noxious and invasive plants. The wetlands and shallow contoured slopes leading to riparian areas will create nesting habitat for waterfowl. Once shoreline vegetation is re-established, it will create additional habitat for terrestrial and avian species.

Fishing and recreation opportunities will also increase, according to Fisheries Biologist and Kenai Peninsula Zone Aquatic staff officer Adam Cross. “We’re going to ask Alaska Department of Fish and Game add the Freestone Ponds to their statewide fish stocking program once we can meet the state requirements. Due to the proximity to the Begich Boggs Visitor Center, the increased recreational use in Portage Valley, and the ease of access, we anticipate a surge in use, like paddleboarding, swimming, and eventually fishing!”

So whether motorists are driving along the reconstructed Seward Highway, taking advantage of some new development projects in the Girdwood and Portage areas, or enjoying the new opportunities at Freestone Ponds, they’ll be enjoying the benefits of gravel removed from Freestone Ponds!

[Find out more...](#)



photo credit Granite Construction



## PRINCE WILLIAM SOUND HISTORY SYMPOSIUM

**O**n May 18, 2020, more than 250 people attended the second annual Prince William Sound Natural History Symposium, delivered online in response to COVID-19 restrictions. The event was free to the public and provided the latest science, research and heritage news from top experts throughout the Prince William Sound region.

This year's day-long agenda featured fifteen speakers on topics that included Alaska Native culture, climate change, weather patterns, glaciers, wildlife and much more. Among the many highlights were Dan Olsen's (North Gulf Oceanic Society) presentation on local orca populations and behavior and John Morton's discussion of the rapid ecological changes occurring on the Kenai Peninsula.

**Presentations were recorded and are available at [www.princewilliamsound.org](http://www.princewilliamsound.org).**

## MAKING CONNECTIONS – PORTAGE CURVE



**I**n 2020, the Chugach National Forest worked with Alaska Department of Transportation and Public Facilities to bring the design stage of the Portage Curve Multimodal Connector project to 95% completion. The team secured construction permits, worked towards acquiring critical easements and rights of way, developed a mitigation plan for wetlands impacts to restore priority forest watersheds (see [Freestone Ponds](#) story and [Resurrection Creek](#) story ), and secured an additional \$200,000 in Federal Lands Access Program funding. The Forest Service, in partnership with the Alaska Railroad Corporation, also began work on the Portage Depot design.

**Find out more about the Portage Curve Multimodal Connector project.**



**T**he Iditarod National Historic Trail was designated as one of 15 Priority Areas within the National Forest System as required by the National Forest System Trails Stewardship Act. In 2020 the funds this designation brought were used to work on a vital connector trail segment in Moose Pass.

**Other overall accomplishments for the INHT this year**

- Funding for two bridges on Ingram Creek
- Completion of 1700 feet of new trail between Vagt Lake and Grant Creek
- Work in Turnagain Pass and on Winner Creek trail
- Construction of seven backcountry campsites.

In filmmaker Max Romey's upcoming series "Trail-bound Alaska," viewers take in the rugged summer landscapes of the Iditarod National Historic Trail, its wildflowers and thick summer vegetation, and its flowing glacial waters. Romey's film highlights the summer season on the Southern Trek of the Iditarod National Historic Trail, between Seward and Eagle River.

In the first of a six-part series scheduled to be available in Summer 2021, the artist and filmmaker walks, runs, paints, and films places that only the heartiest of trekkers have seen. Approximately 115 miles of the Southern Trek portion of the trail are completed, while 47 miles of planned trail and 24 bridges remain to be constructed. The upcoming movie highlights the history and beauty of the trail and shows the challenges of hiking a trail not yet completely built.

For a sneak peek of the film [visit this link](#).

## IDITAROD NATIONAL HISTORIC TRAIL







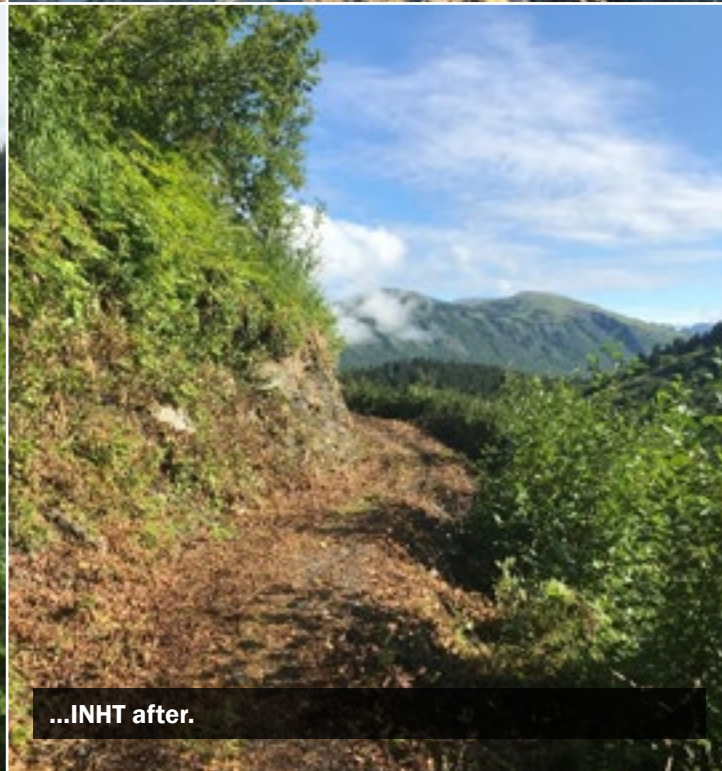
**Tree-removal along the INHT in Turnagain Pass**



**The bridge over Upper Ingram Creek**



**INHT before...**



**...INHT after.**

## **IDITAROD NATIONAL HISTORIC TRAIL GRANT**

The Glacier Ranger District Trails Program was awarded a \$75,000 grant in 2020 from the State of Alaska through the federal gas tax funded Recreational Trails Program. The money is being used to improve a 12-mile stretch of the Iditarod National Historic Trail (INHT).

This stretch of the INHT runs through the heart of Turnagain Pass and was constructed about a decade ago using American Recovery and Reinvestment Act funds. At the time there were insufficient funds to construct the six bridges necessary to access the new trail and it was overrun with vegetation and proved to have inadequate drainage.

During the 2020 field season the grant funds supported work brushing out the northern half of the trail. The trail crew also improved a dispersed campsite facility and installed a bear box at an easily accessible spot overlooking Turnagain Arm. The improvements resulted in increased public use by many, including bikers and berry pickers.

The remainder of the funds will be spent in the 2021 field season to brush the southern half of the trail and make necessary tread and drainage improvements.

And we're happy to report that one of the six needed trail bridges were installed in the fall of 2020, with another planned for early summer 2021. Once all bridges are installed and the trail is rehabilitated, the stunning setting and central location will quickly make it a public favorite.



## **WELCOME TO PORTAGE VALLEY**

Begich, Boggs Visitor Center was closed to visitors this summer, but staff hosted information tables outside the facility and had roving interpreters in Portage Valley to answer questions and present campfire sessions for campers in Williwaw Campground.

Interpreters held 17 campfire programs and made more than 6,000 informal contacts in the Valley.





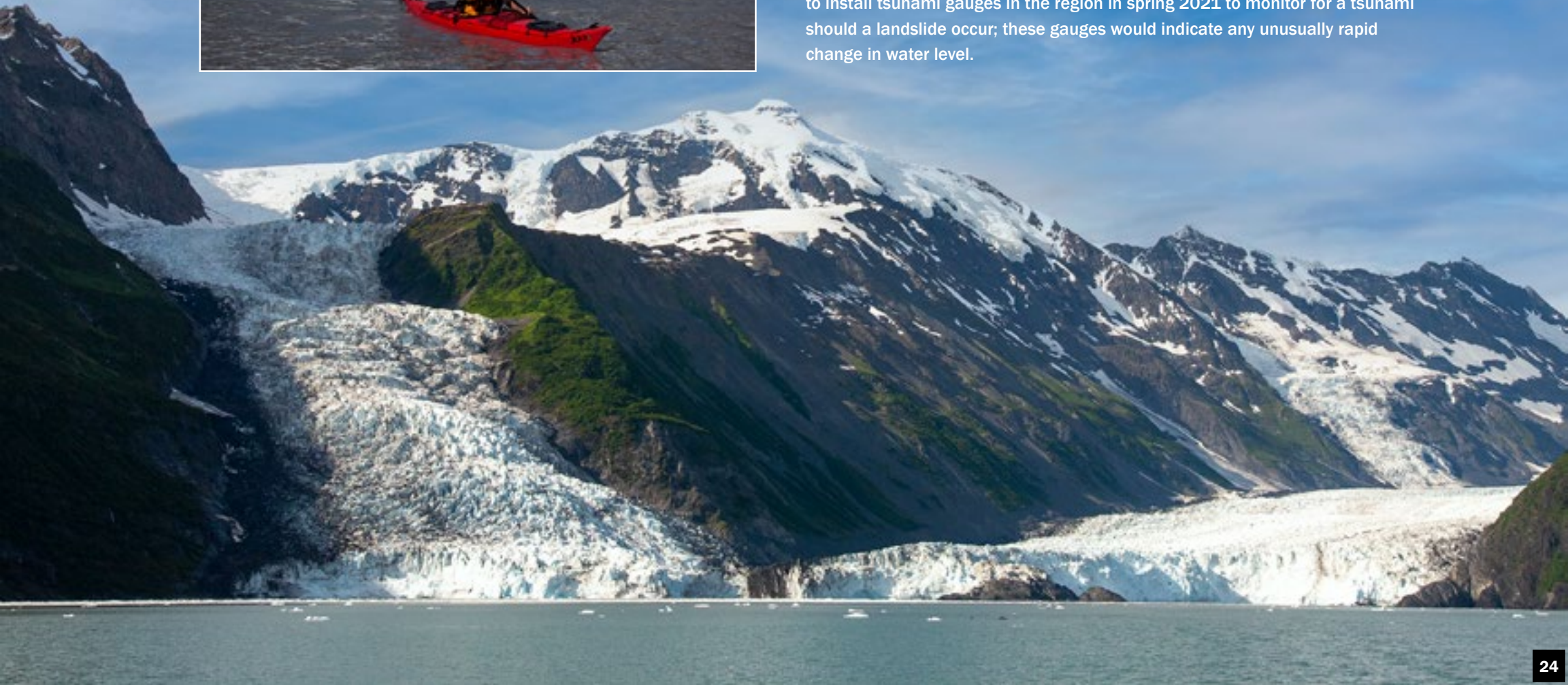
## **BARRY ARM LANDSLIDE COORDINATION AND MONITORING**



In the spring of 2020, scientists identified a large, steep, potentially unstable slope on the Chugach National Forest in the Barry Arm fjord, located 30 miles northeast of Whittier, Alaska. A landslide at this site would fall into seawater generating a tsunami that could have devastating effects on those who live, work, and recreate in and around Whittier and northern Prince William Sound.

### **APPLIED SCIENCE**

Throughout 2020, the Forest Service was part of a state and federal team working to monitor, assess and collect baseline data, develop early detection warning systems, and inform Prince William Sound communities and users. Scientists monitored motion by comparing data on the site collected at different times using satellite-based radar, airborne LiDAR (pulsed lasers that measure distances), and aerial mapping. Seismometers and a remote camera have been installed on Forest lands. The National Tsunami Warning Center (NTWC) plans to install tsunami gauges in the region in spring 2021 to monitor for a tsunami should a landslide occur; these gauges would indicate any unusually rapid change in water level.





## THE CHALLENGE

“The risk of landslide-induced tsunamis in Prince William Sound and Southeast Alaska is not new,” said NTWC Tsunami Warning Coordinator Dave Snider. “Our challenge is knowing when they occur and helping keep people and property out of harm’s way. Being aware of the risk and having a tsunami safety plan when enjoying our state’s wild areas is always a smart move.”

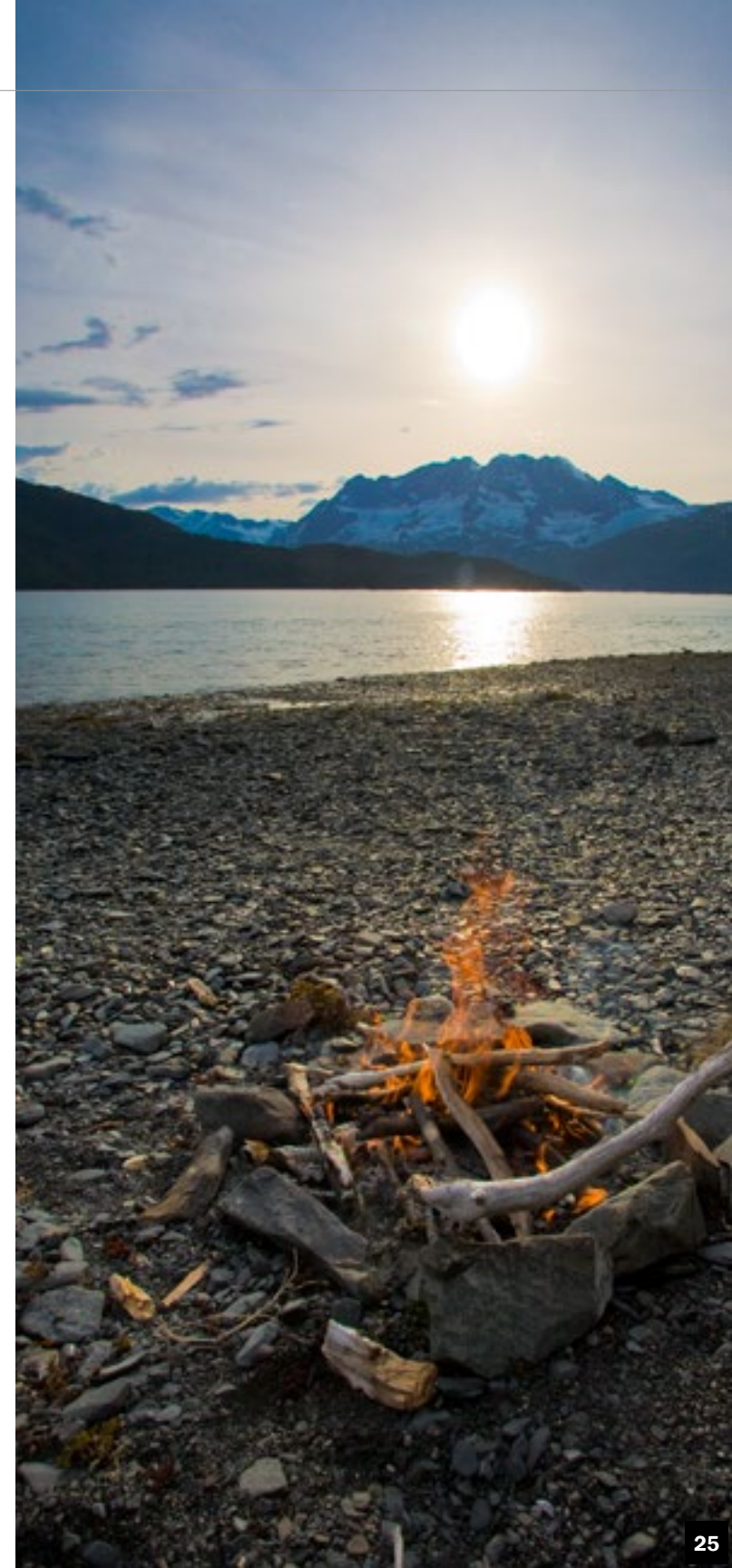
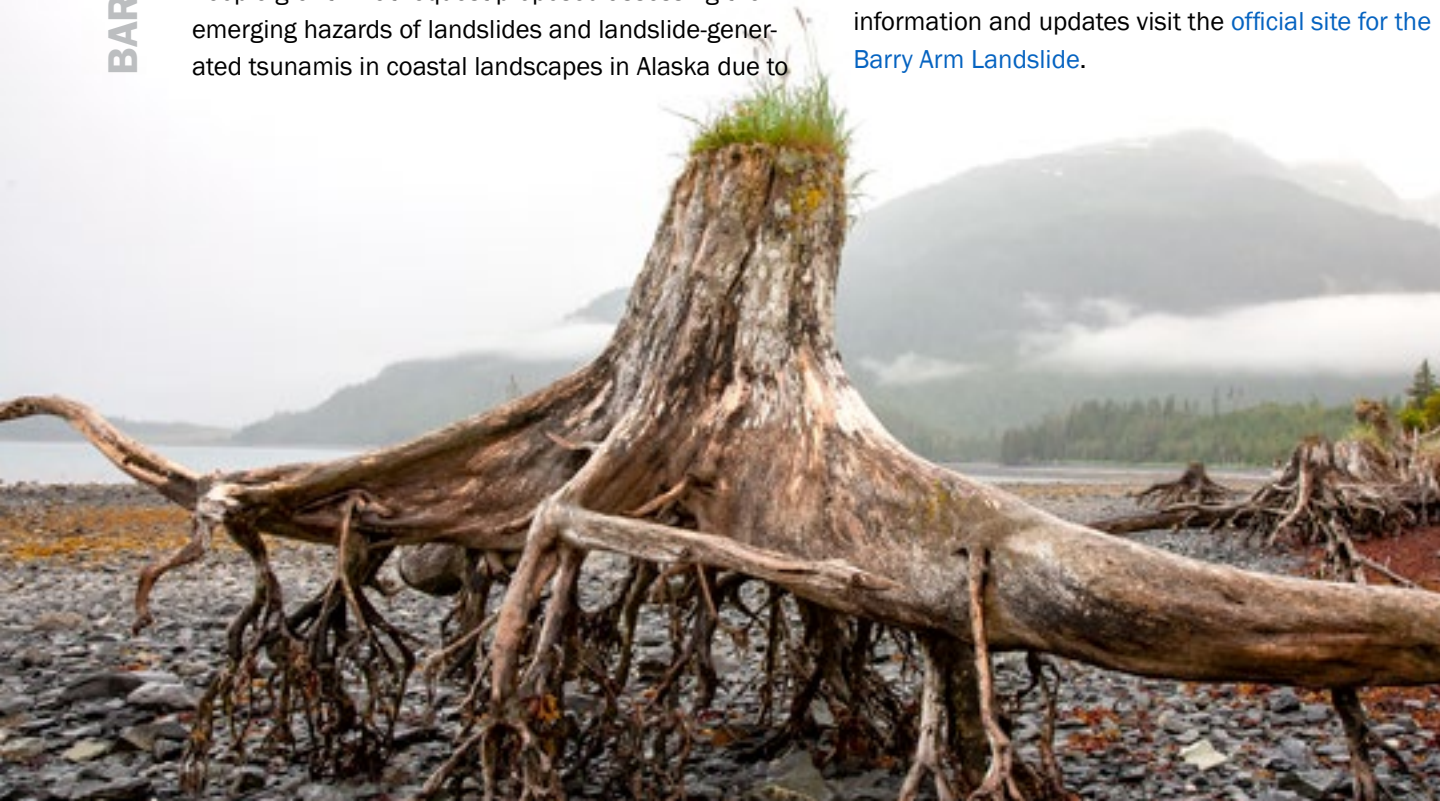
Working with NTWC, Alaska Department of Homeland Security and Management, Alaska Division of Geological and Geophysical Surveys, Alaska Earthquake Center, United States Geological Survey, and National Oceanic and Atmospheric Administration (NOAA), Forest Service staff facilitated and permitted sensor installations and survey work. The Forest Service also provided review and a letter of support for a National Science Foundation Coastlines and People grant. That request proposed assessing the emerging hazards of landslides and landslide-generated tsunamis in coastal landscapes in Alaska due to

alpine permafrost thaws and glacial thinning caused by climate change.

## TEAMWORK

“Each of these cooperating agencies has unique expertise, resources and jurisdiction for a slide of this potential impact,” said Glacier District Ranger and landslide team representative Tim Charnon. “We’re glad we can help facilitate this assessment through special use permits, logistical support and communication with the public, our special use permit holders, Prince William Sound communities and our Tribal partners.”

Scientists meet routinely to discuss their observations, share information about notable changes, and work with emergency management agencies. The [recording](#) of the January 14, 2021 Barry Arm Landslide Learning Session/Whittier informational meeting is a helpful overview. For the newest information and updates visit the [official site for the Barry Arm Landslide](#).





## CHUGACH NATIONAL FOREST AVALANCHE INFORMATION CENTER

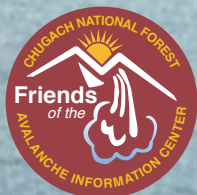
The Chugach National Forest Avalanche Information Center had an unforgettable year. They rolled out a [new website](#), strengthened their non-profit partnerships, weathered a staff injury, and ended the season two weeks early because of an Alaska-wide stay-at-home mandate. A cold winter and thin snowpack brought tricky avalanche conditions with many close-calls and, sadly, the loss of five Alaskans in four different avalanche accidents.

The Center's new website features an interactive "weather map," and is optimized for mobile devices. Longtime forecaster Heather Thamm said farewell to the Center and we welcomed new forecaster Ryan Van Luit.

Outreach is a key component of the Center, and from mid-November through mid-February staff were able to reach nearly 1000 people directly during 15 outreach events.

### KEY STATISTICS

- Turnagain Pass Forecasts ..... 122
- Avalanche Warnings ..... 1
- Special Avalanche Bulletin ..... 1
- Website Stats: May 2019 – April ..... 2020
  - Unique Visitors ..... 151,794
  - Total Visits ..... 497,263
  - Page Views ..... 2,418,489
- Facebook – New Followers..... 752
- Facebook – Total Followers..... 6834





# *Seward Ranger District*





## **LEANING ON THE PRIVATE SECTOR**

Seward Ranger District opened its campground facilities early and was able to keep them open and safe throughout the season thanks to the hard work of its private-sector partners.

The District brought on concessionaires early in the year, anticipating the impact the pandemic would have on the summer season. Hosts managed to gather staff to open the campgrounds more than two weeks earlier than normal, keeping up with the unusual numbers of visitors.

The early start required the revamping of regular campground host training, which incorporated new COVID mitigations to ensure the safety of campground hosts and visitors, and trained personnel on updated cleaning standards and the use of personal protective equipment.

Over the season the concessionaires dealt with large increases in weekend use, due in part to first-time campers. The district saw a significant increase in campground visitors during the summer 2020 season: overall use was up by 125%.

[Learn More...](#)

## **GOOD NEIGHBOR AUTHORITY**

Initiated in 2019, this agreement saw real boots on the ground in the fall of 2020 and the project is officially underway. This will add to the Forest's ability to tackle restoration projects, while providing training and employment opportunities for the Native communities served by Chugachmiut.

This authority is a framework for accomplishing a wide range of projects, including the study of the impact of spruce beetle on Southcentral Alaska. Our work so far has contributed to improved forest health conditions, a reduction in excess fuels, and increased public safety in the popular Russian River corridor. This corridor is home to one of the state's most important and busiest recreational areas.





## **STERLING HIGHWAY**

The Sterling Highway, built in the 1940's, runs through the Kenai Peninsula Borough and is part of the National Highway System. The section between Mile Posts 45 and 60, in the Kenai River Valley, has not seen any major upgrade, even though it is the only road connecting western Kenai Peninsula communities with the rest of the state. Alaska Department of Transportation (DOT) decided to bring it up to current standards, reducing congestion and improving safety.

Built largely through mountains on Forest Service land, the highway is constrained by the Kenai River, cultural resources, private land, and many recreational features. But despite the challenges of its location, the Sterling Highway is finally being rebuilt, and the Juneau Creek Alternative has been selected.

The DOT will construct roughly 10 miles of highway north of Cooper Landing, primarily on the Chugach National Forest. The reroute crosses Forest Service trails, access roads, and the Resurrection Pass National Recreation Trail. DOT will provide mitigation and/or access for the affected resources.

Forest Service resource specialists met biweekly with leadership and bimonthly with external agencies and multi-agency working groups as the DOT got the project underway. Some site clearing, geotechnical investigation, and surveys have been completed and Forest staff continue coordinating with other agencies and stakeholders on various aspects of design and implementation to ensure that concerns are addressed.

**Find out more about the [MP 45-60 project](#).**





## **SPRUCE BEETLE ON THE ATTACK**

Over the last few years spruce beetle outbreaks have erupted across the Chugach National Forest and the rest of southcentral Alaska.

Warmer spring temperatures mean adult spruce beetles are active earlier while drier summers make trees more vulnerable. White and Lutz spruce trees are the primary species being attacked.

The Chugach National Forest has teamed up with other federal, state and local land agencies to help manage hazardous fuels and educate landowners, through a variety of programs, on how to treat and prevent infestations.

Active spruce mortality mapped in 2019 indicated a substantial decrease. But the outbreak on the Kenai Peninsula continues; as primary host trees die the beetles simply move into other types of trees.



## **KENAI LAKE WORK CENTER**

In June 2020, the Site Development Plan for the KLWC was completed. In August 2020 the team of Forest staff and design contractors started working on the detailed designs for this project, whose goal is to make the site more functional and safe, centralize employees and storage spaces, retire specific buildings, and deal with aging septic systems and waterlines.

KLWC was primarily a seasonal work center for the Seward District, but now serves as the year-round District office and work center.

A site tour and staff survey helped define the District's needs for the area, and three initial ideas coalesced into one final plan that has all staff under one roof, a new heated storage building and an unheated 3-sided covered storage structure, and a centralized septic system. It also separates the public and work driveways, and eliminates ten buildings.

The plan was designed so that work on the KLWC can be phased as funding becomes available. The public, partners and staff alike can look forward to the sustainable, secure, and accessible changes coming to the KLWC.





**N**ormally, the goal is colder water for fish. But in the construction of the Cooper Lake Dam, the warmer lake waters did not enter Cooper Creek. Instead, Cooper Creek waters changed from a warmer lake source to a snow source of water, the Stetson Creek tributary. This change lowered the overall water temperature of Cooper Creek resulting in a negative impact to fish and fish habitat.

As part of a relicensing process mandated by the Federal Energy Regulatory Commission, Chugach Electric, consulting with the Forest, invested \$22 million in technology and infrastructure designed to benefit fish by increasing water temperature in Cooper Creek near Cooper Landing, Alaska.

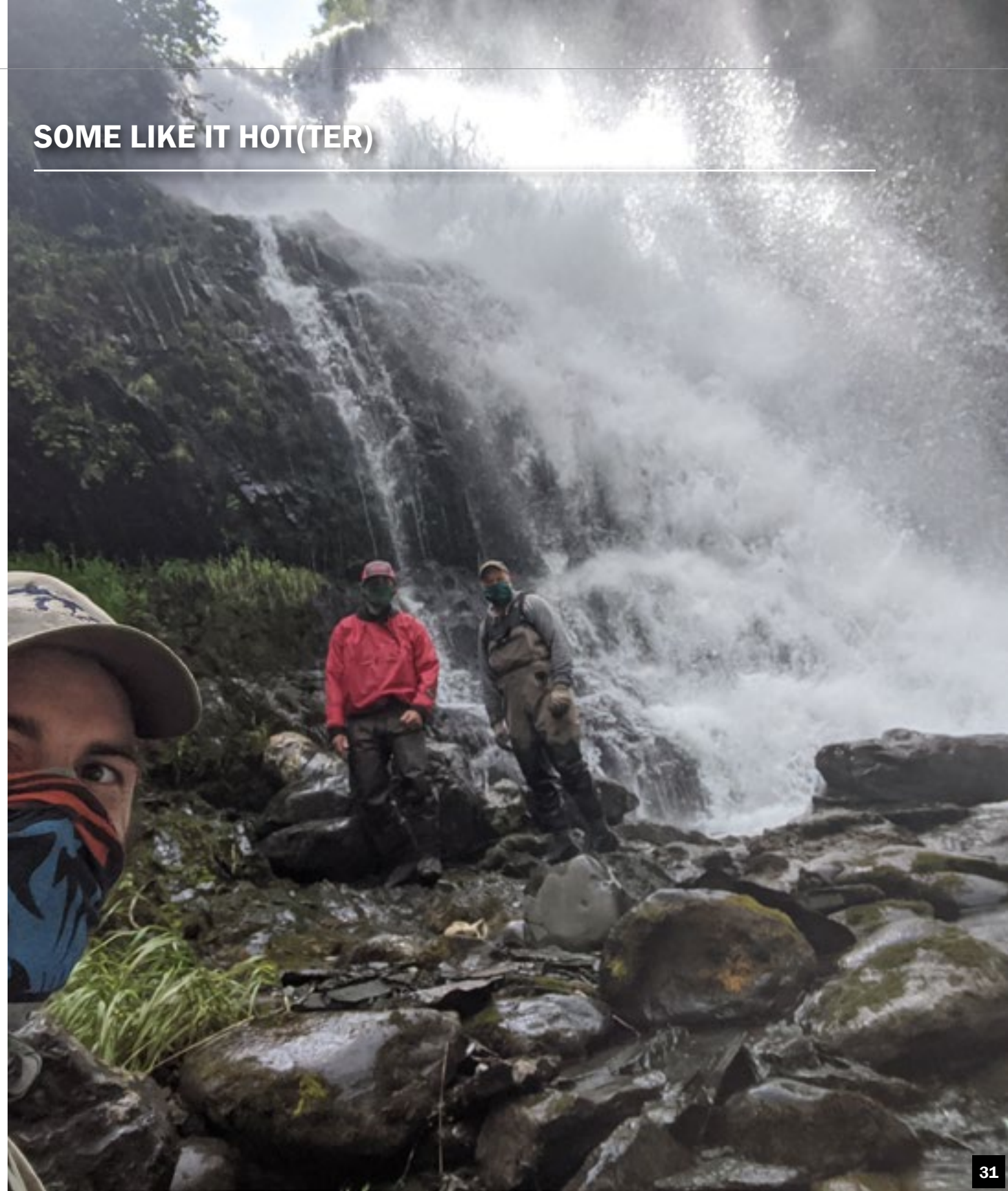
The project diverts colder Stetson Creek into the Cooper Lake Hydroelectric Project reservoir. Warmer water from the reservoir is “siphoned” into Cooper Creek to restore fish habitat.

Relicensing required monitoring of conditions prior to and following the construction of the diversion. This included salmon escapements, water temperature and quality and juvenile outmigration abundance. A private firm created the 2008 Biotic Monitoring Plan for Chugach Electric Association to guide post-diversion monitoring. As part of the team overseeing the project, the Kenai Peninsula Zone (Seward RD) aquatics crew conducts the monitoring with reimbursement from Chugach Electric.

In 2020, assessments were conducted on sixteen sites along Cooper Creek from Cooper Lake downstream to the confluence with the Kenai River.

Weekly counts were conducted to count adult anadromous fish species, and electronically map areas of spawning activity.

## SOME LIKE IT HOT(TER)







## **RESURRECTING THE TRAIL**

When the Resurrection South trail was damaged in the Swan Lake fire of 2019, the Seward Ranger District was ready to jump into action. In 2020, during six 8-day stretches, the Seward Ranger District trail crew repaired and improved more than six miles of trail!

Helicopters lifted in 175 bags of gravel to rehabilitate highly eroded southern sections of the Resurrection Pass National Recreation Trail, and restore it to sustainable standards. The crew also completed extensive work to drain off excess water. Downed trees were cleared, trail bridges and approaches were improved, and short reroutes were constructed along Juneau Lake to correct trail damage.

After seeing the repaired Resurrection Pass trail, Seward District Ranger Francisco Sanchez was thrilled. “Our recreation crew rocks. Literally! What an incredible job they did this year.”

The results speak for themselves. The trail system has never looked better and the public, based on numerous positive comments, approves. With the Resurrection Pass trail being one of the most popular and well-used long distance trails in Alaska, its continued sustainability is a win for all users.





**Resurrection Creek Phase II area before**



**Resurrection Creek Phase I area after**

## RESURRECTING A CREEK... PHASE II

Resurrection Creek, on the Seward Ranger District, located on the northern end of the Kenai Peninsula near Hope, was home to one of Alaska's first gold rushes. This creek looked pretty bedraggled after the placer mining of the 1900s to 1940s. Much of the soil was lost and the stream channels and wetlands were dramatically changed. Mining and mine tailings turned the stream into a long, straight, deep ditch with steep sides unconnected to the flatter, wider floodplain. It no longer resembled a natural Alaska creek. More than 80 years later, it looks much the same and would not naturally restore itself for centuries.

In order to mitigate this, the Forest Service is working with Hope Mining Company on a partnership to restore a two-mile stretch of Resurrection Creek on the Company's active mining claims over the next decade. This partnership with additional contributions from Kinross Gold via Trout Unlimited will contribute to restoring near-natural stream channel process within a 74-acre corridor. This would include returning the stream and its floodplains to a more natural, sinuous route. Pools and side channels would be constructed, logs and root-wads would be installed, and riparian areas would be revegetated. Work in the Phase I area, completed in 2006, shows great results: more complex stream channel, connectivity with the floodplain, improvement of aquatic and riparian habitat, and dramatically increased salmon spawning and juvenile rearing.

To get there, planning has been intense! "While we have done restoration on other parts of Resurrection Creek in past years," said Chugach National Forest

Hydrologist, Angela Coleman, "what is unusual about the Resurrection II project is that we are doing the work on an active mining claims, working with a mining company. It means that we have to coordinate our timing, location, and actions very carefully so that we all accomplish our goals without disturbing each other's efforts or results. We also hope to multiply our beneficial results by finding ways that mining activities can contribute to restoration."

Planning meetings between the two partners continued throughout the summer of 2020 and the Chugach National Forest and Enterprise Watershed Restoration Division began preparations to restore the creek. In May, LiDAR (a kind of radar that uses light pulses) data was gathered to help map the existing conditions and material needs for this project. Over the summer, Regional Office GIS staff created the mosaic datasets in CAD and ArcMap, products essential for completing the final stream restoration corridor designs. And closer to the ground, Forest Service engineers and crew completed the temporary bridge site surveys during the summer and finished preliminary designs in the fall.

So while mining of the past damaged this creek, mining in the future may help to "resurrect" Resurrection Creek.





## ANOTHER SUCCESSFUL SEASON

Each summer since 1994, a group of Kenai Peninsula Stream Watch volunteers, administered by the Chugach National Forest and the Kenai Watershed Forum, have offered education and stewardship activities at the region's most-visited recreational fishing areas. The year 2020 was different because of COVID-19, but truly exceptional because of increased volunteerism! Safely navigating the challenges of the pandemic, volunteer Ambassador hours increased by 21% from the previous year.

Seventy-seven volunteers spent 846 hours on the river, fenced off two miles of fragile riverbank habitat, and provided educational messages to 2258 members of the public. They also removed 4747 pounds of trash and recycled 100 lbs of fishing line.

Volunteers participate in Stream Watch during single day stewardship events or by becoming Ambassadors. Ambassadors receive orientation training and are issued official uniforms to wear while on duty. Stream Watch volunteers work the Russian River Campground and Ferry, Bing's Landing, Moose Range Meadows, Centennial Park, the mouths of Kenai and Kasilof rivers, the Anchor River, and Deep Creek. Locals and seasonal workers enthusiastically stepped up to care for salmon habitat as record numbers of visitors flocked to public lands to fish and recreate.

"Our Stream Watch Ambassadors are the heart of the program," said Marion Glaser, interagency coordinator for the Forest Service. "Some of the COVID-19 mitigations we put in place, such as

replacing the traditional indoor 8-hour volunteer orientation with individual hour-long on-river orientations, made it easier for people to participate in the program and led to overall higher numbers. By adapting to face the challenges of the global pandemic, we actually ended up stronger than before."

"This program never ceases to amaze," says Branden Bornemann, Executive Director of Kenai Watershed Forum. "As COVID-19 set in, we were concerned that we might not be able to have our usual presence on the river, but the volunteers proved us wrong. They were out there as soon as they could be, taking all the safety precautions and making a difference."





# 2020 Regional Forester's Awards

## Alaska Region Employee of the Year – Andy Morse, LE&I Cordova Ranger District

*For demonstrating exemplary competencies, skills, and abilities required to fulfill his duties.*

Each year the Alaska Region 10 Regional Forester accepts nominations for the Regional Forester Awards. These awards recognize individuals and groups who have demonstrated significant achievements in restoring, sustaining, and enhancing the National Forests in Alaska, or have contributed to the well-being of their fellow employees, customers, and local communities. Anyone within the organization may submit a nomination.



Last summer, Andy assisted in a search-and-rescue effort on the remote Sheridan River southeast of Cordova. Five pack rafters attempted to float out of Sheridan Glacier Lake into Sheridan River and run a section of white-water back to the Copper River Highway. Several of their rafts capsized and one of the rafters became trapped on a ledge on the canyon's vertical wall for over two hours while waiting to be rescued. Andy's knowledge enabled him to use an ATV to get as close to the person's location and then hike in the rest of the way. Andy's actions were lifesaving for the individual.

### William Brennan Glacier Ranger District

#### Sustainable Recreation

Awarded for sustaining, enhancing, or developing recreation opportunities and experiences for the American people and international visitors while balancing the need to protect the ecological integrity of the region's forests and wetlands.



### Norman Foster Supervisor's Office

#### Excellence in Customer Service

Awarded for sustaining, enhancing, or developing recreation opportunities and experiences for the American people and international visitors while balancing the need to protect the ecological integrity of the region's forests and wetlands.



## Seward Ranger District Trails Crew - Sustainable Recreation Award

Sustaining, enhancing, or developing recreation opportunities and experiences for the American people and international visitors while balancing the need to protect the ecological integrity of the region's forests and wetlands.



Claire Shipton



Neil Pederson



Jake Dies



Colton Farley



Mike Fitzpatrick



Daniel Krueger



Eleanor Hollingsworth



The Chugach National Forest is proud to announce

## **The Cordova Ranger District Copper River Watershed Enhancement Partnership**

was named a recipient of

### **The 2020 Chief's and Under Secretary's Honor Award**

*Copper River Watershed Enhancement Partnership is a shining example of a collaborative approach to landscape-scale improvement of watershed health. By identifying and replacing under-sized culverts in the Copper River Watershed, the partnership is actively restoring the productivity of National Forest System land and rejuvenating public access routes.*

**- PARTNERS INCLUDE -**

USDA Forest Service	Chugach National Forest
Cordova Ranger District	Copper River Watershed Project
National Oceanic & Atmospheric Administration	U.S. Fish & Wildlife Service
Alaska Dept. of Fish and Game	Alaska Dept. of Transportation and Public Facilities

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***Project funding was provided by Exxon Valdez Oil Spill Trustee Council  
with additional funds from AK DOT&PF and in-kind contributions from the partners.***

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