

**Department of Natural Resources**

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**Division of Forestry & Fire Protection**

**2022 Annual Report**







Crews prepare for strategic burning operations near Kobe agriculture subdivision on the Clear Fire on July 9. (*Division of Forestry & Fire Protection/Pacific Northwest Team 10*)

## **Alaska Department of Natural Resources**

### **Division of Forestry & Fire Protection**

### **2022 Annual Report**

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**The mission of the Division of Forestry & Fire Protection is to protect the lives and property of Alaskans from wildfire and manage Alaska's forests to provide a sustainable supply of forest resources.**

The Division of Forestry & Fire Protection:

- Manages a wildland fire protection program on public, private, and municipal land
- Encourages development of the timber industry and forest products markets
- Conducts timber sales for commercial use, personal use, and fuel wood
- Protects water quality, fish and wildlife habitat, and other forest values through appropriate forest practices and administration of Forest Resources and Practices Act
- Manages the Southeast, Haines, and Tanana Valley state forests, totaling 2.1 million acres
- Administers the federally funded Community Forestry, Forest Health, and Forest Stewardship programs
- Gives technical assistance to owners and managers of forested land

The State Forester's Office is in Anchorage. The division has regional offices in Fairbanks and Palmer, and other offices throughout the state. As of December 2022, the division had 58 full-time, 201 part-time/seasonal, and 5 non-permanent positions.

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Front cover photo: Flight over Clear Fire. (Division of Forestry & Fire Protection/Pacific Northwest Team 10)

Back cover photo: A private landowner is using a Forest Stewardship Plan to manage this birch forest for recreation and firewood production. (Nick Lisuzzo).



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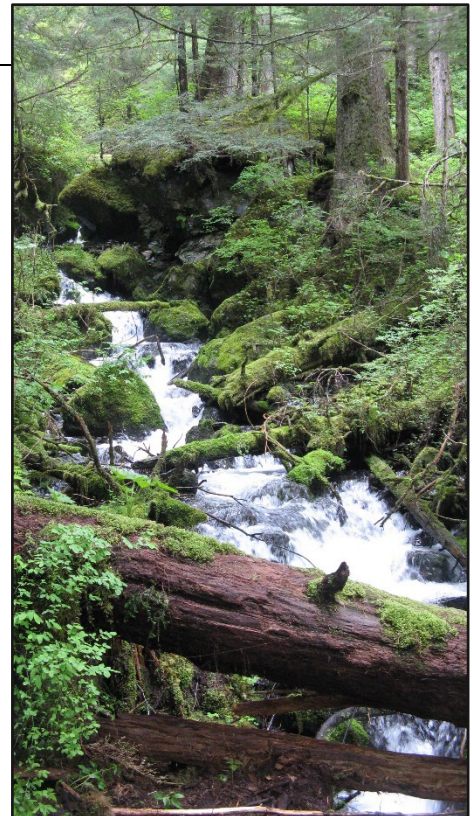
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### Alaska State Foresters

Earl Plaurde October 1959 to June 1968	Dean Brown (acting) December 1992 to February 1993
William Sacheck July 1968 to June 1974	Tomas Boutin March 1993 to January 1997
George Hollett July 1974 to June 1976	Dean Brown (acting) January 1997 to July 1997
Theodore Smith July 1976 to April 1982	Jeff Jahnke July 1997 to July 2005
John Sturgeon May 1982 to June 1986	Dean Brown (acting) July 2005 to October 2005
George Hollett (acting) July 1986 to February 1987	John “Chris” Maisch October 2005 to February 2021
John Galea March 1987 to May 1988	Tim Dabney (acting) February 2021 to June 2021
Tom Hawkins (acting) June 1988 to December 1988	Helge Eng June 2021 to present
Malcolm “Bob” Dick January 1989 to November 1992	



## State Forester's Foreword

The Division of Forestry changed its name to the Division of Forestry & Fire Protection effective July 1, 2022. This highlights our dual mission of protecting the lives and property of Alaskans from wildfire and managing Alaska's forests to provide a sustainable supply of forest resources. The name change is a positive step toward a more mission-focused organization, reflecting both the public safety and fire suppression responsibilities of the division, as well as its forestry duties. Our division is Alaska's Fire Department; we provide fire suppression for most of the populated areas of the state. In the last five years, approximately 92 percent of the division's budget was spent on preparing for and fighting wildland fires. The name change will help the division identify its core mission to the public, to private and state entities, and to the Legislature. This will result in cost savings driven by more effective allocation of fire protection funds in the state budget. For example, hazardous fuels reduction projects have already saved millions of dollars by helping protect Alaskan communities from wildfire.

The name change reflects the ongoing reorganization of our division to meet changing conditions. We are now seeing dramatically increased wildfire risk as we experience rapid growth in fire intensity and the length of fire seasons, and people choose to live in fire-prone areas (the wildland-urban interface). At the same time, federal timber supply continues to decrease, and innovative new forest products and forest carbon offsets are becoming priorities. As our responsibilities under both the fire protection and forestry programs increase in complexity and magnitude, our previous organizational structure no longer fits our dual mission to protect the lives and property of Alaskans and manage a sustainable timber supply for Alaskans. The demands of both programs became too much for one person to manage alone.

The division now has two programs, Forestry and Fire Protection, each with its own Deputy Director. The division's two Regional Foresters will be complemented by two Regional Fire Management Officers to supervise fire suppression functions. While the Fire Protection and Forestry programs now have separate leadership structures, they work closely together on hazardous fuels reduction projects and land management as it pertains to forest health and resilience after wildland fire. Foresters continue to fill crucial agency administrator roles during wildfire suppression, helping guide land management decisions, while fire managers ensure the division is prepared for the emergency response and public safety mission of the division. We consolidated our dispatch offices and personnel into two emergency response and logistical support dispatch centers, in Fairbanks and Palmer. We are creating a Fire Management Specialist series focused on fire management, separate and distinct from the Forester job series, which focuses on forest management, forest health, and timber production. The two separate series will create a career ladder for both firefighters and foresters into leadership positions within the division. The end state is two skilled and mission-specific programs that support each other in fire protection and emergency response, hazardous fuels management, and sustainable timber production.

Through the Governor's budget and legislative support, the division's operating budget was increased last year (Fiscal Year 2023) to add new leadership positions for both Fire Protection and Forestry:

- Built firefighting capacity with receipt of the first half of the \$8 million needed to increase our firefighting forces to Preparedness Level 3, including lead firefighters, training and fuels specialists, GIS analyst, and critical support staff.
- Passed the Emergency Firefighter Bill to allow general funds to now pay emergency firefighters for non-emergency hazardous fuels work.
  - Creates stable employment for rural Alaskans
  - Rebuilds village fire crews
  - Diversifies rural economies
- Reinstated the Wildland Fire Academy, which provides training to new firefighters to build expertise and help rebuild our village fire crews.
- Added six new firefighting crew support vehicles.
- Provided seasonal wildland firefighters with health care.
- Increased timber sale capacity. The legislature approved four forester positions, the first half of rebuilding support of the timber industry and providing economic opportunities to rural communities that depend on forestry jobs.

The positions added were the first half of building capacity to support the division's mission and are critical to support the development, training, and field leadership of the firefighting workforce. The Fiscal Year 2024 budget request includes the boots on-the-ground firefighting crews that we hope to receive to complete the organizational missions.

After decades of deferred maintenance of infrastructure, equipment, and staff capacity, rebuilding the division's infrastructure will take time. Our top priorities continue to be rebuilding the wildland fire facility in Fairbanks, the fire crew facility in Eagle River, the airtanker base in Fairbanks, fire facilities in McGrath, and the fire support vehicle fleet. These are essential elements of creating a more responsive and effective organization to serve Alaska.

The Governor has appointed John Boyle as the new Commissioner for the Department of Natural Resources. Both Deputy Commissioners Brent Goodrum and John Crowther are staying on, so we expect a smooth transition and continued focus on building DOF's capacity and completing our reorganization. Akis Gialopsos, the departing Acting Commissioner, was a strong supporter of both the forestry and fire protection missions of DOF. We are grateful for his support, and we wish him all the best.

The 2022 fire season started off setting records for the number of fires, acres, and high temperatures, followed by one of the wettest Augusts in Alaska's recorded history. Record drought in May, June, and the first two weeks of July resulted in 590 fires and 3.1 million acres burned, the fourth largest fire season in the last 20 years. DOF contained 99 percent of fires in the critical management option and 83 percent of fires within the full management option at less than 10 acres with a combined success rate of 95 percent.

An unprecedented amount of federal funding is beginning to materialize for grants, notably in the fuels reduction and cooperative forestry arena. This presents opportunities for funding projects, as well as challenges in finding people and equipment to do the work. In the last two years, the division has received approximately \$17 million in state Capital Improvement Project funds to execute fuels mitigation treatments. We anticipate receiving more state and federal funding in the future for these critical projects that help keep Alaskans safe from wildland fire. It is important for us to get the message across that successful fuels reduction requires commitment to a permanent program. Implementing these proactive fuel mitigation treatments will require DOF to increase its capacity before seeing significant increases in treatment acres. Maintenance of fuel breaks will be an ongoing task.

Forest Stewardship and Community Forestry programs are also receiving increased federal grant funding. A return to interacting with the public after two years of isolation is a great opportunity for many homeowners and landowners to engage with these programs to improve tree health and forest health on their properties.

Despite high demand for locally sourced dimensional lumber, Alaskan sawmills often cannot sell construction materials for housing. Building codes require lumber to be quality graded and stamped, and Alaska sawmill operators often do not have the financial resources to pay for lumber grading. Most of the wood used for construction in Alaska is sourced from the Lower 48 or Canada. In 2022, DOF began working with stakeholders on a regulations package for local lumber grading. This program will increase the use of Alaskan lumber in Alaskan markets by allowing local sawmill operators to self-certify their lumber.

My priorities for the coming year include finishing what we started, the reorganization of the division, lumber grading regulations, and building a strong hazardous fuels reduction program. Recruiting hard-working dedicated staff and leadership to the division remains our top priority. We accomplished a lot in 2022, thanks to our dedicated staff. Thank you for your efforts. I look forward to working with you to advance our mission in 2023.



Helge Eng

Alaska State Forester

# FORESTRY PROGRAM

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## Forest Practices Implementation on State, other Public, & Private Land

The Division of Forestry & Fire Protection (DOF) is the lead agency for implementing the Forest Resources and Practices Act (FRPA). Primary activities include:

- coordinating interagency review of detailed plans of operation (DPOs) for activities on private and other public (non-DNR) lands;
- field inspections, implementation monitoring, and enforcement actions on these lands; and
- incorporating the standards of the act and regulations into state timber sales.

Forest practices related work on federal land is conducted by the Alaska Department of Environmental Conservation (DEC) and the Alaska Department of Fish and Game (ADF&G) Habitat Division based on their authorities for water quality and fish habitat protection.

**Note:** FRPA data is reported on a calendar year basis because 11 AAC 95.220 requires Region 1 DPOs to be submitted by calendar year. Data on state forest management, e.g., state timber sales, are reported by state fiscal year (July 1 – June 30) to be consistent with state budget documents.

### Forest Practices Activities

**Notifications and inspections.** In 2022, DOF received and reviewed 21 new harvest detailed plans of operation, six new reforestation/timber stand improvement DPOs, and 18 renewals for private and other (non-DNR) public lands. New DPOs covered 2,593 acres and 31 miles of new forest road. The division conducted 12 inspections on private and other public land, 51 inspections on state timber sales, and nine regeneration surveys on previously harvested DNR managed lands.

Except for the Kenai-Kodiak area, the number of DPOs reviewed and acreage notified decreased from 2021 to 2022. For the Southeast Area, the FRPA activity on private and other public lands occurred on University of Alaska lands near Ketchikan, on village corporation lands near Yakutat, and on Mental Health Trust lands near

Ketchikan and Naukati. The Southeast Area staff inspected DOF timber sale operations for compliance with FRPA requirements on Prince of Wales Island near Thorne Bay and Hollis, Kosciusko Island, Gravina Island, and in the Haines area.

Notifications and acreage notified for operations on private and other public (non-DNR) lands increased slightly in the Kenai-Kodiak area, with five DPOs submitted for operations on Afognak Island (Region 1) and one DPO submitted for operations on borough lands (Region 2). One DPO was submitted and reviewed in the Mat-Su Area (Region 2) and one DPO was submitted and reviewed in the Fairbanks Area (Region 3).

**Variations and Enforcement.** For the fourth year in a row, there were no requests for variations to harvest in riparian retention areas. DOF issued one notice of violation in 2022.

**Compliance monitoring.** DOF monitored for compliance on most FRPA inspections. A rating of 5 means the best management practice (BMP) was consistently and effectively implemented where applicable; a rating of 1 means the BMP was rarely implemented or was implemented ineffectively. The data show solid implementation rates in all regions. Region 1 averaged 4.3 out of 5.0 and Region 3 averaged 4.1 out of 5.0; no inspections or monitoring was conducted in Region 2.

In Region 1, where there were 39 compliance scoresheets completed on state, other public, and private lands, 89.4 percent of BMPs evaluated met or exceeded compliance standards. There were a few BMPs that required corrective action. These BMPs were primarily related to road drainage, location of roads in riparian areas, and harvesting operations near surface waters. Operators acted quickly to rectify deficiencies as they were discovered and made progress to fully implement BMPs in the future.

Due to short staffing, no inspections or compliance scoresheets were completed in Region 2.

In Region 3, DOF completed 13 compliance scoresheets on active DNR timber sales and found good compliance, with 75 percent of the scores



above 4.0. Most of the BMPs that scored below 4.0 were associated with road damage related to spring breakup and were promptly addressed. The Tanana Valley State Forest (TVSF) road maintenance program has improved in recent years due to increased funding for equipment operators and the efforts of timber sale contractors using the TVSF mainlines. This road system receives a significant amount of public use, so attention to road maintenance and grading prior to freeze-up has been a priority in recent years. Compliance was good on winter roads and most harvest operations in Region 3.

**Reforestation exemptions.** Operators may request an exemption from FRPA reforestation requirements for harvests composed of significant numbers of dead or dying trees. DOF received and approved one new request for reforestation exemption on 131 acres in Region 2.

**Effectiveness monitoring and research.** DOF works with agencies and affected interests to prioritize effectiveness monitoring of the Forest Resources and Practices Act and related research needs. The interagency Effectiveness Monitoring Working Group remains in contact on high priority projects and opportunities for collaboration. The group includes representatives from DOF, USDA Forest Service (USFS), ADF&G, US Fish & Wildlife Service (USF&WS), Natural Resource Conservation Service (NRCS), and Sealaska Corporation will meet in 2023 to discuss projects and priorities.

**Landowner, operator, staff training.** DOF area and regional staff provide training for landowners and operators that varies from formal classroom presentations to “tailgate” sessions during field inspections to “teaching moments” during telephone conversations and DPO reviews. There were numerous tailgate sessions and teaching conversations, but no formal training sessions were held this year as DOF was without a FRPA forester for much of the year.

In addition, DOF has a series of FRPA training modules on PowerPoint that are accessible through the division’s website. The series has 20 modules that cover: purpose, applicability, DPOs, stream classification, riparian standards, road construction and maintenance, stream crossings, reforestation, timber harvesting, inspections and compliance

monitoring, enforcement, mass wasting, prosecution coordination, and hearing officer duties.

The modules for FRPA enforcement, prosecution coordination, and hearing officer training are on the internal DOF website, and available only for division employees. The DOF public website is used by a variety of users:

<http://forestry.alaska.gov/forestpractices>.

**Staff Changes.** Pat Palkovic returned to the division in August of 2022 to replace FRPA Forester Joel Nudelman, who retired on February 1. Pat is based in Juneau.

Joel came to DOF in 1998 after working for the US Department of the Interior Minerals Management Service and the Bureau of Land Management, where he surveyed the Alaska Railroad right-of-way. As a forester for Tlingit Haida Indian Tribes he managed young growth stands. He will now have time for skiing, boating, traveling and other activities he enjoys.



Logging at Bay View timber sale. (Greg Staunton)

## Board of Forestry

The Board of Forestry advises the state on forest practices issues and provides a forum for discussion and resolution of forest management issues on state land. The board also reviews all proposed changes to the Alaska Forest Resources & Practices Act and its regulations. Board members are appointed by the governor for three-year terms and represent a variety of forestry-related interests.

### Alaska Board of Forestry Members

Helge Eng, Ex-officio Chair  
State Forester  
Bill Morris  
Fish/Wildlife Biology - Non-Governmental, Fairbanks  
Denise Herzog  
Mining Organization, Fairbanks  
Russell Byerly  
Recreation, Haines  
Mike Post  
Forester - Non-Governmental, Anchorage  
Eric Nichols  
Forest Industry Trade Assn., Ketchikan  
Vacant  
Commercial Fishery, Juneau  
Nathan Lojewski  
Native Corporation, Anchorage  
Brian Kovol  
Environmental Organization, Anchorage

### New Notifications Detailed Plans of Operation

	2019	2020	2021	2022
Southern SE	24	33	13	12
Northern SE	13	5	5	1
Mat-Su/SW	0	0	2	1
Kenai-Kodiak	5	3	3	6
<b>Coastal</b>	<b>42</b>	<b>41</b>	<b>23</b>	<b>20</b>
Fairbanks	1	1	1	1
Delta	0	0	0	0
Tok	0	0	1	0
Copper River	0	0	0	0
<b>Northern</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>
<b>TOTAL</b>	<b>43</b>	<b>42</b>	<b>24</b>	<b>21</b>

### Harvest Acreage in New Notifications

	2019	2020	2021	2022
Southern SE	4,376	7,843	1,860	1,095
Northern SE	961	1,242	683	13
Mat-Su/SW	0	0	148	131
Kenai-Kodiak	841	1,085	1,479	1,339
<b>Coastal</b>	<b>6,178</b>	<b>10,170</b>	<b>4,170</b>	<b>2,578</b>
Fairbanks	29	45	38	15
Delta	0	0	0	0
Tok	0	0	0	0
Copper River	0	0	0	0
<b>Northern</b>	<b>29</b>	<b>45</b>	<b>38</b>	<b>15</b>
<b>TOTAL</b>	<b>6,207</b>	<b>10,215</b>	<b>4,208</b>	<b>2,593</b>

### Road Miles Notified

	2018	2019	2020	2021	2022
SSE	22	36	41	10.28	10.2
NSE	36	14	15	2.25	1.9
Mat-Su/SW	9	0	0	0.25	0.5
Kenai-Kodiak	31	6	8	16.90	18.1
<b>Coastal</b>	<b>98</b>	<b>56</b>	<b>64</b>	<b>29.68</b>	<b>30.7</b>
Fairbanks	3	3	7	1.00	0.3
Delta	0	0	0	0	0.0
Tok	0	0	0	0	0.0
Copper River	0	0	0	0	0.0
<b>Northern</b>	<b>3</b>	<b>3</b>	<b>7</b>	<b>1.90</b>	<b>0.3</b>
<b>TOTAL</b>	<b>100</b>	<b>59</b>	<b>71</b>	<b>31.58</b>	<b>31.0</b>

## State and Federal Projects

### The Good Neighbor Authority

The Division of Forestry & Fire Protection (DOF) undertook Good Neighbor Authority (GNA) federal grant projects in the Tongass National Forest in 2016 in cooperation with the USDA Forest Service (USFS) Region 10. The GNA idea stems from the 2014 Farm Bill that allows the USFS to enter into agreements with state forestry agencies to accomplish critical management to keep forests healthy and productive across land ownerships.

#### **Kosciusko Island Timber Sale**

This GNA forest restoration project is in the Tongass National Forest on Kosciusko Island near Edna Bay. The sale includes 1,500 acres of various harvest prescriptions containing about 25 million board feet (MMBF) of young growth spruce and five MMBF of young growth hemlock. The timber sale contract was signed in September 2017 and is set to end on December 31, 2023. Several price reductions were negotiated by the timber sale buyer due to market tariffs, oversupply of beetle-killed wood in Europe, and COVID-19.

There is no road access to Kosciusko Island. Although located entirely within the Tongass National Forest, hauling from the timber sale must cross two other landowners' roads and contractors use a state log transfer facility. A road and facility use agreement allows use of the road and sort yard. The contractor is responsible for all permits, surveys, and cleanup associated with the timber sale.

The Alaska Mental Health Trust transferred administration of the sale to DOF in April 2022. DOF acquired satellite imagery of one-meter resolution for the area prior to active operations in the summer of 2022.

The purchaser seasonally closed operations on the Kosciusko Island GNA timber sale in November 2021 and chose to operate on an old growth timber sale on state land through most of 2022. In September 2022, the purchaser mobilized a new logging contractor, Papac Alaska Logging Inc., to log the remaining volume in the GNA timber sale. The month of September was spent establishing camp facilities at the state sort yard, developing material sites, and building temporary roads. During the last

week of September, Papac prioritized shovel logging the areas with timber felled by Evergreen in late 2021 in Units 1, 6 and 9. Papac began shovel logging in October and hauling timber in November. No scaling of 2022 volume had occurred at the time of this report.

#### **Vallenar Bay Timber Sale**

The Vallenar Bay Timber Sale was the first true GNA project in Alaska in that it includes joint management on both state and National Forest lands. The timber sale includes about 481 acres within the Southeast State Forest and Tongass National Forest on the northwest end of Gravina Island. The Vallenar Bay sale involves about 16 MMBF of timber from a mix of old and young growth Sitka spruce, western hemlock, red alder, western red cedar, and Alaska yellow cedar. The project will require about three miles of road construction on state and federal land and timber will be harvested through a combination of ground-based and cable logging systems.

The combined sale was appraised and offered for competitive sale with a bid closing date in September 2018, but there were no bids. DOF theorizes that its appraisal of the timber sale did not correctly reflect all risks associated with the young growth timber (for example, potential tariffs) and may have applied too high of a value on old growth timber on state land that is bundled with the USFS wood. The tariff implemented by China just after the bid date was not included in the appraisal. The tariff was not a verifiable cost at the time of initial offer and the primary market for the young growth timber is projected to be China.

The USFS and the state discussed the risk and the appropriate party and method to handle the cost. Observations by DOF and industry led to a review of the cruise data for the state land old growth; the higher quality sort distribution in the old growth timber listed in the prospectus were not typical. The data were edited to yield a more likely distribution of sorts and grades for the area. Most of the change in the appraisal value occurred in the old growth timber on state land. No change was made to the sort distribution for the young growth. There was a change in value in the young growth on USFS and state land as the result of market risk.



Confidence and the market demand for young growth timber was significantly affected by the tariff levied by China in the last quarter of 2018. The state responded by increasing the profit and risk percentage in the wood destined for China to account for the uncertainty of the market and tariff condition. The value at the time of the reappraisal placed the USFS wood at approximately equal to the projected costs; consequently, the state marketed it with the state timber at the USFS minimum stumpage rates.

The reoffer sale package was publicly noticed the first week of January 2019. The state received one bid at the end of January and the sale was awarded to Alcan Timber Inc. on February 6. The contract was signed the following week.

DOF's Ketchikan office issued a contract for improvements to the alignment of the Vallenar Road mainline in August 2020, and workers adjusted the vertical alignment to improve vehicle sight distance. The work used the residual state capital funds that originally financed the road.

No activity occurred on the federal land portion of the project in 2022 or any previous year. The purchaser has been harvesting in old growth in Units 1, 4, 5, and 6 for most of the year on state land and on a separate timber sale on University of Alaska land. The operator had harvested approximately 380 MBF of young growth from state land in Unit 2 as of the end of November 2022. Additionally, the purchaser has been intermittently constructing a spur road to access state units 5A and 3.



Sitka spruce at Vallenar Bay timber sale. (Greg Staunton)

## Southeast Alaska Sustainability Strategy Challenge Cost Share Agreement

The Southeast Alaska Sustainability Strategy Young Growth II Transition Challenge Cost Share Agreement for \$600,000 was executed on April 12, 2022. Work began on the three tasks below in June.

### **1. Young Growth Working Forest Analysis**

DOF issued a delivery order to Terra Verde, Inc. (DOF's forestry services contractor) to coordinate with the USFS to acquire copies of all necessary base layer information including new ortho photos, vegetation layers, LiDAR information, and other relevant base layers.

The technical work group met with agency partners and project consultants in July in Ketchikan and agreed with Terra Verde to begin work in late November. Terra Verde agreed that initial timber typing, and mapping would focus on Prince of Wales Island where LiDAR, vegetation mapping, and other digital information already exists. DOF, Sealaska Corporation, and various Alaska Native Village Corporation staff are soliciting involvement in the Working Forest Analysis and the SE Landowners Group and working to obtain permission to use existing young growth stand mapping and other data developed by each private landowner.

An additional \$437,500 has been secured from the USFS State and Private Forestry to advance the Working Forest Analysis on state, trust, and private lands in the Southeast.

### **2. Tongass Transition Collaborative (TTC)**

The USFS State and Private Forestry, Tongass National Forest and DOF met with the contractor, Meridian Institute, in Ketchikan in July and developed a plan of work and budget for the grant. DOF and the Meridian Institute completed a cooperative agreement on August 30. DOF then provided the Meridian Institute with names of individuals who could potentially serve on the TTC. A strong list of participants was confirmed and an in-person TTC meeting was scheduled for mid-December in Ketchikan.



### 3. Southeast Alaska All-Landowners Group

DOF prepared a brief written narrative describing the history of the Southeast Alaska All-Landowners Group (LOG) and shared it with members and prospective members. DOF also coordinated with the DNR Office of Project Management & Permitting to hold two virtual meetings of the LOG in July and September, and an in-person meeting in Anchorage in October.

DOF's project forester for the LOG contacted agency partners, private consultants, and private landowners to develop strategies to increase membership in the group from Native Village Corporations in SE Alaska. He coordinated with USFS Tongass staff on road use agreements, and on agreements between DOF and the USFS necessary for the state to access its commercial young growth timber located on Heceta Island.

The project's forester obtained current Forest Stewardship Plans for private Native Village Corporation lands in SE Alaska from DOF's Forest Stewardship Program coordinator. These plans will form the basis of a written narrative on individual landowner forest management goals and objectives. He also invited staff at Sealaska Corporation, Cape Fox Corporation, the DNR Mental Health Trust Land Office, and the University of Alaska Land Management Office to participate in the LOG and in the Young Growth Working Forest Analysis. All four parties have agreed to participate in both efforts. The forester has provided to members estimates of the regional timber volume currently under contract in the region and estimates of regional timber sale volume offerings planned for 2023, by landowners or land manager.

## Forest Management

### Forest Inventory and Analysis

The Forest Inventory and Analysis (FIA) program of the USFS provides information to assess America's forests. In interior Alaska the division has partnered with the USFS to install and measure plots through a Joint Venture Agreement. As the nation's continuous forest census, the FIA program monitors the status and trends of all public and private

forestlands in the U.S. This is especially important in Alaska where significant changes in temperature, permafrost, and plants are occurring and expected to increase. A suite of information is sampled at each plot on trees, soils, understory plants, and woody debris. State field crews have successfully conducted the Interior Alaska FIA program for seven years and have met all USFS quality control metrics.

In 2022, operations were based in Sleetmute and Aniak. A total of 154 plots have been installed and measured. The plots were accessed by helicopter and boat. Staffing included two permanent coordinators, two permanent seasonal quality assurance foresters, six permanent seasonal crew leads, and eight non-permanent crew members.

### Cooperative Alaska Forest Inventory

The Cooperative Alaska Forest Inventory (CAFI) was implemented by the University of Alaska Fairbanks in 1994. The CAFI is by far the longest running forest inventory project in Interior Alaska and 200 road accessible plots are widely distributed from the Kenai Peninsula north to Coldfoot. The data have been used by many researchers to evaluate forest conditions, such as forest growth, diversity, carbon stocks, and forest health.

Despite the highly valuable data sets the project was discontinued in 2015 due to a lack of resources at UAF. DOF revived the study and started remeasuring the plots in 2020 and secured grants in 2021. Funding from the USFS Evaluation Monitoring Program is used to remeasure the CAFI plots in south-central Alaska to assess the effects of the spruce beetle outbreak. DOF is also collaborating with UAF researchers to measure the remaining plots.

Continuous monitoring of growth and conditions in highly managed, accessible forests provides invaluable information for forest management. In 2022, foresters remeasured 24 plots across Interior and Southcentral Alaska, including the Kenai Peninsula, Copper River Basin, the Fairbanks area, and Tok.



The state sort yard at Edna Bay. (Greg Staunton)

### Levels of Growing Stock

The University of Alaska Fairbanks established Levels of Growing Stock plantations in the Bonanza Creek Experimental Forest near Fairbanks in 1986, and near Tok in 1992. This study was initiated to determine optimal spacing to produce the greatest volume and economic return. It was also helping determine the early survival rate of native and introduced species and how stand density affects tree size development in northern Alaska.

The plantations were last measured by UAF in 2011 and 2012, and DOF remeasured them 10 years later in 2021 and 2022. In 2022, the Cooperative Alaska Forest Inventory crew remeasured all white spruce and lodgepole pine plots (13 each), and two of 13 eastern larch plots in Tok. The mortality rate for eastern larch was much higher than for white spruce and lodgepole pine likely due to competition with other species.

### Forest Planning

The Division of Forestry & Fire Protection reviews and comments on a wide range of state and federal agency land-use plans to help ensure the division and the public have continued access to forest resources on state lands. In addition, DOF works to encourage the salvage of timber when forested land is cleared for rights-of-way or other purposes and provides stipulations for protecting forest health. In winter 2021-2022, DOF conducted public scoping for the revision of the Tanana Valley State Forest Management Plan.

Commercial Timber Sales Sold on State Land Fiscal Year 2022 (MBF = 1,000 board feet)				
Area	Sales	Acres	Volume MBF	Sale Value
Southern SE	3	168.00	4,774.21	\$953,267.00
Northern SE	1	30.00	96.14	\$5,845.00
Kenai - Kodiak	0	0	0	0
Mat-Su	0	0	0	0
<b>Coastal Total</b>	<b>4</b>	<b>198.00</b>	<b>4,870.35</b>	<b>\$959,112.00</b>
Fairbanks	11	493.80	3,869.29	\$232,678.58
Delta	8	127.40	858.94	\$48,976.09
Tok	0	0	0	0
Copper River	0	0	0	0
<b>Northern Total</b>	<b>19</b>	<b>621.20</b>	<b>4,728.23</b>	<b>\$281,654.67</b>
<b>STATE TOTAL</b>	<b>23</b>	<b>819.20</b>	<b>9,598.58</b>	<b>\$1,240,766.67</b>

Timber Sale Revenue (in thousand dollars)	
FY13	682.3
FY14	354.0
FY15	1,917.0
FY16	212.8
FY17	688.5
FY18	477.4
FY19	464.3
FY20	91.7
FY21	265.4
FY22	1,420.0

Commercial Timber Sales Harvested on State Land Fiscal Year 2022 (MBF = 1,000 board feet)				
Area	Sales	Acres	Volume MBF	Sale Value
Southern SE	3	318.00	7,174.62	\$1,330,190.70
Northern SE	3	54.00	180.23	\$12,091.05
Kenai - Kodiak	0	0	0	0
Mat-Su	0	0	0	0
<b>Coastal Total</b>	<b>6</b>	<b>372.00</b>	<b>7,354.85</b>	<b>\$1,342,281.75</b>
Fairbanks	4	246.00	1,576.68	\$77,449.47
Delta	0	0	0	0
Tok	0	0	0	0
Copper River	0	0	0	0
<b>Northern Total</b>	<b>4</b>	<b>246.00</b>	<b>1,576.68</b>	<b>\$77,449.47</b>
<b>STATE TOTAL</b>	<b>10</b>	<b>874.00</b>	<b>8,931.53</b>	<b>\$1,419,731.22</b>

Firewood Permits Issued & Cords Sold		
FY 18	740	3,093
FY 19	619	2,296
FY 20	574	2,279
FY 21	653	2,872
FY 22	564	1,951

Ten-Year Record of Timber Volume Sold - MBF					
	Coastal Southeast	Coastal Southcentral	Northern Region	State Total	Statewide Sales
FY 13	4,976	1,918	2,662	9,556	50
FY 14	8,512	379	19,621	28,512	58
FY 15	6,171	438	14,305	20,914	39
FY 16	401	50	7,864	8,315	34
FY 17	8,196	378	2,749	11,323	38
FY 18	5,269	206	2,477	7,952	22
FY 19	13,673	152	2,165	15,990	31
FY 20	262	250	1,809	2,321	31
FY 21	39,071	150	3,124	42,345	30
FY 22	4,870	0	4,728	9,599	23



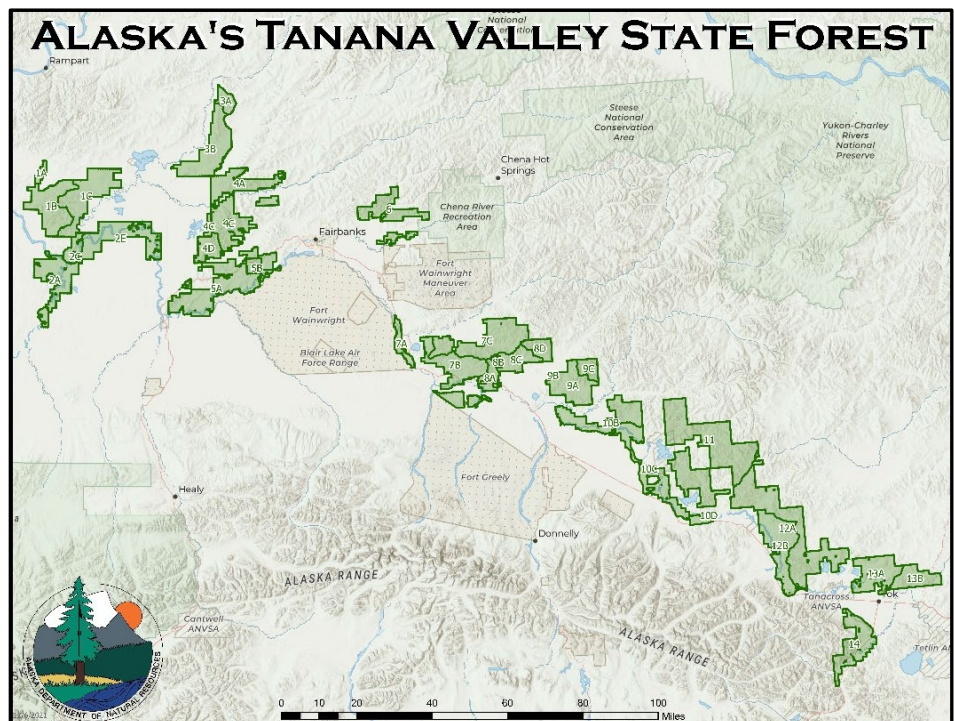
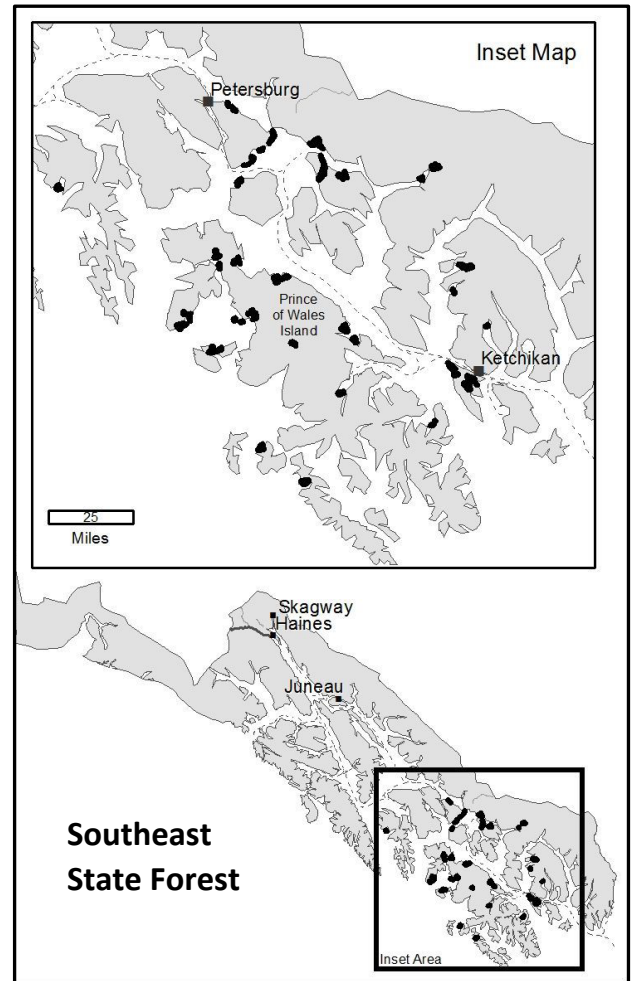
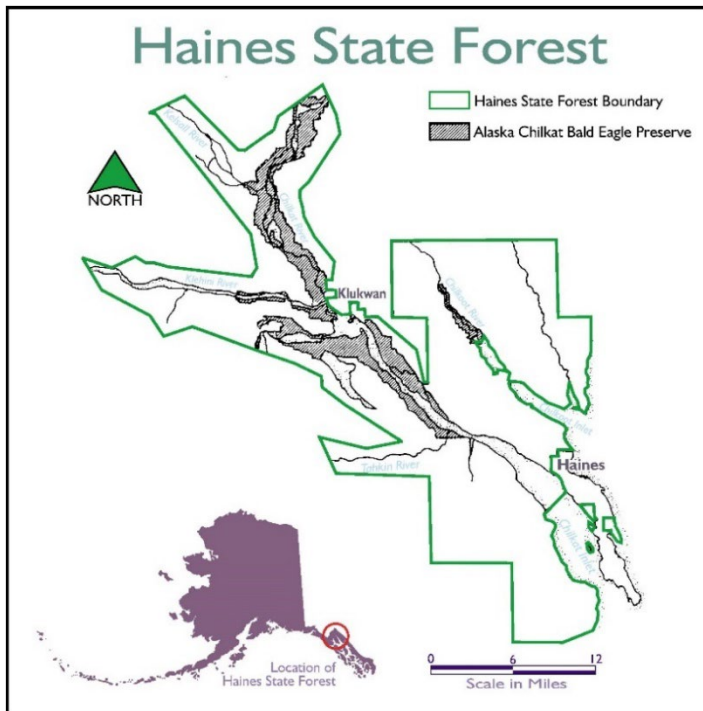
## Alaska's State Forests

Alaska's three state forests are managed for a sustained yield of a variety of resources

**Haines State Forest:** Established in 1982  
286,208 acres

**Tanana Valley State Forest:** Established in 1983  
1.78 million acres

**Southeast State Forest:** Established in 2010  
48,472 acres





## Coastal Region

### Kenai-Kodiak Area

This Area includes the Kenai Peninsula and Kodiak Archipelago, totaling approximately 10 million acres. The Area supports initial attack wildland fire response and manages state timber sales and the Forest Resources and Practices Act in Region 1 and Region 2.

The Kenai-Kodiak Area had no timber sales in 2022. Timber is marketed as firewood, round logs for dimensional milling, and house logs. Multiple small mill operators on the Kenai Peninsula rely on timber harvest on state lands as a material source, producing dimensional lumber, cabin kits, and dunnage (typically 4x4x48 inches or 6x6x48 inches, used in oilfield construction and shipyards). Local contractors were kept busy with a surplus of trees killed by beetles on public and private lands. There were no requests for negotiated timber sales.

Firewood demand from the public remains high and land management agencies coordinate to provide access for gathering firewood. The state maintains eight miles of forest roads on the Kenai Peninsula, providing access for the public, future commercial timber sales, and personal use firewood.

Timber operators in Region 1 on Afognak Island harvested about 32 million board feet in 2022 and operations are ongoing. The division processed five Detailed Plans of Operation totaling 1,214 acres of proposed harvest. The Area Office makes field inspections on Kodiak and Afognak Island ensuring reforestation and ongoing operations meet Forest Resources and Practices Act requirements.

**Fire.** During the 2022 fire season, DOF personnel responded to 226 calls: 69 wildland fires, 146 smoke reports, eight false alarms, two requests for assistance, and one response out of the Area. A total of 31 acres burned. The first fire occurred on April 11 and the last fire was on October 31.

Area dispatchers and technicians supporting fires within Alaska accounted for 313 worker days between April and August. Personnel supported fires in the Lower 48 from August through October, accumulating 311 worker days.

Technicians staffed a strike team of engines deployed to Washington and Oregon and filled single resource roles on other incidents. The dispatch staff supported assignments for logistics, initial attack dispatch, and aircraft dispatch.

### Mat-Su & Southwest Area

This Area includes the Matanuska and Susitna valleys, Anchorage, and western Prince William Sound (14.6 million acres), and Southwest Alaska (85.4 million acres) for a total of 100 million acres, making it the largest administrative district managed by DOF. The Anchorage Bowl, including Joint Base Elmendorf-Richardson and Eagle River, encompasses the largest wildland/urban interface in the state, while Southwest Alaska is among the least populated and most remote areas. The Area is managed from the division's Palmer office and a seasonal office in McGrath. It supports initial attack wildland fire response and administers state timber sales and the Forest Resources and Practices Act.

Public demand for firewood remains high. A total of 439 cords of personal-use firewood were sold through 121 online permits in the Mat-Su and Southwest Area. The Area sold 17 negotiated personal use contracts for 68 cords of firewood, 11 thousand board feet (MBF) of sawlogs, and 3,800 lineal feet of house logs. This allowed residents to harvest beetle killed trees from state lands near their homes and remote properties for heating and to reduce hazardous fuels.

There is one active state commercial timber sale for 45 acres in the Mat-Su. The Area also approved one detailed plan of operation for a timber sale on Mat-Su Borough lands totaling 131 acres.

The Area partnered with the Alaska State Parks Design and Construction Section and Alaska Department of Fish and Game (ADF&G) to continue improving the seven-mile-long Willer-Kash Road near Willow. They reconditioned 600 feet of road surface to improve drainage and durability and installed an ATV ramp at the parking lot to allow safer loading and offloading of ATVs. Improvements completed in 2021 and 2022 provided better access to popular hunting and recreation areas, timber sales, and personal use firewood cutting areas. The work was funded by a Pittman-Robertson grant.

**Fuels Mitigation.** The Area stood up a fuels mitigation crew this year and made steady progress on two high-priority projects, the Caswell Phase 2 project between Willow and Talkeetna, and the Lynx Lake project near Nancy Lake. The 17- to 20-person crew, composed of emergency firefighters and Area staff, treated a total of 13.3 acres and burned 272 piles. The Area also secured a land-use permit from DNR's Division of Mining, Land and Water, and a fish habitat permit from ADF&G and solicited bids from local contractors for mechanical fuels reduction treatments on the Sunset fuel break. Work on this 6.2-mile fuel break, located between Houston and Meadow Lakes, will begin in late 2022 or early 2023 when snow and frost conditions are adequate to support the equipment.

**Fire.** This was an intense fire season for the Mat-Su/Southwest Area. Staff in McGrath supported emergency response after spring floods impacted communities along the Kuskokwim River. Early season fires in Southwest areas that don't typically see fires presented new challenges to overcome.

The Lime Complex, composed of 18 fires within a planning area the size of Ohio, saw three Type 2 Incident Management Teams before being turned back to the Area in late July. All told, in the Southwest Area, 61 fires burned 1,361,598 acres, and in the Mat-Su Area, 125 fires burned 133 acres. Area staff participated on Incident Management Teams and supported an Alaska engine task force that mobilized to the Pacific Northwest. The Mat-Su Area is home to two state sponsored fire crews, the Gannett Glacier Type 2 Initial Attack Crew (IAC) and the Pioneer Peak Interagency Hotshot Crew (IHC). The 22-person crews are based between Palmer and Wasilla and may be deployed for both in-state and out-of-state assignments. When not on fire assignments the crews engage in fuels reduction work.

The Pioneer Peak IHC was on fire assignment for 92 days in 2022. The crew logged six days on fuels reduction work. The Gannet Glacier Type 2 IAC was on fire assignments for 83 days. This crew logged 11 days on fuels reduction.

**Fire Prevention.** Mat-Su Area fire prevention staff implement a robust prevention and education program, administer the burn permit program, coordinate fire investigations, and enforce wildland fire protection statutes. Despite being half-staffed for

the season, the prevention team completed 15 days of public outreach, participated in 20 weekly radio shows, was featured in two TV news stories, and completed 11 educational sessions at elementary schools. The team also completed an update of the burn permit website, making it easier for the public to use.



The Gannett Glacier Crew worked 11 days on the Lynx Lake fuel break. (*Bryan Quimby*)



Nathan Blydenburgh tends a pile of burning debris on the Caswell Phase 2 fuel break. (*Lily Coyle*)



## Southeast Area

The Southeast Area covers the Alaska panhandle from Haines to Ketchikan. The public and private land in the area provides most of the timber volume and revenue harvested from forested land in Alaska. The Area manages the Southeast and Haines state forests and administers the Alaska Forest Resources and Practices Act on extensive private holdings within its jurisdiction. The predominant ownership in the area is federal land managed by the USDA Forest Service.

Activity occurred on the 15 MMBF Bayview Timber Sale that the Viking Lumber Company in Klawock purchased from the state in 2021; it will be domestically processed. Staff worked with ADF&G Habitat to restore resident fish passage on a small stream blocked by a slide that occurred during road upgrades to access the Bay View Timber Sale in 2021.

Alcan Timber Inc. of Ketchikan continued to operate on old growth timber in the 16 MMBF mixed age Vallenar Good Neighbor Authority timber sale. Timber from Vallenar was shipped to round log markets in the Lower 48 and to overseas markets including Japan and China. The 4.8 MMBF Edna Bay Parlay Timber sale was sold to Alcan and harvested predominately in 2022, Alcan also logged a small amount of timber on the Kosciusko Good Neighbor Authority in early FY 2022; this timber sale is on federal land and is administered by DOF.

Area staff planned and designed new timber sales on Prince of Wales Island near the communities of Whale Pass, Naukati, Thorne Bay, and along El Capitan Passage.

Local small mill uses of Haines State Forest timber remained strong. The division performed several maintenance projects on the forest road system to repair damage from spring floods to maintain access for commercial operators and the public.

Forest Resources and Practices Act administrative and compliance activity was up due to increased activity on private land in Yakutat and on Mental Health Trust land in the Prince of Wales and Ketchikan vicinities.



Tom Cheney, DOF Forester 1, at the Edna Bay Parlay timber sale. (Greg Staunton)



Bridge replacement at the Bay View timber sale. (Greg Staunton)

## Northern Region

The Division of Forestry & Fire Protection supports and develops new opportunities to maintain the flow of timber to interior Alaska industries. The Northern Region supports local value-added wood processors, commercial fuelwood processors, and jobs in its timber sale program. DOF identifies and offers timber for salvage that was damaged by insects, floods, fires, and windstorms. Making these sales available for purchase in the Fairbanks, Delta, Tok, and Copper River areas, for all-season and winter access and harvesting is a priority.

The sawlog demand remains stable while the firewood and biomass industry in Interior Alaska has increased slightly due to fluctuations in oil prices. The biomass mills in North Pole and Tok continue to produce wood pellets and pellet logs and distribute their products statewide. The Fairbanks-Delta office produces the highest revenue and volume outside of Southern Southeast Alaska. It historically provides 70 percent or more of timber in the interior. Volume offered in previous fiscal years but not sold will remain for sale over the counter at each area office or be re-evaluated for feasibility.

Sawlog spruce goes to three primary mills operating in the interior: Northland Wood in Fairbanks, Logging and Milling Associates in Dry Creek, and Young's Timber Inc. in Tok. Pole and pulp timber go to Aurora Energy Solutions, the largest purchaser in the interior, and Tok Biofuels, which produces compressed fire logs.

The division works with other agencies to provide information to communities on the benefits of burning dry, well-seasoned wood. The U.S. Environmental Protection Agency has warned the cities of Fairbanks and North Pole of the danger to human health caused by high levels of particulate matter caused by burning wood.

### Fairbanks-Delta Area

Commercial timber is harvested throughout the Fairbanks and Delta areas, with over 54 active timber contracts with 23 operators on state land. The demand for spruce saw logs remains stable and the demand for birch fuelwood is increasing.

A fire began in a Fairbanks subdivision off Skyline Drive on June 14 during warm, dry weather. The Steese Volunteer Fire Department and DOF engines and Helitack quickly extinguished the fire. (*DOF photo*)

Aurora Energy Solutions LLC, which formed in early 2020 and acquired Superior Pellet Fuels soon after, is producing pellets, compressed logs, and kiln dried firewood for interior Alaska markets. Most of the raw material used by this company comes from timber sales on the Tanana Valley State Forest. They estimate their firewood kiln will need 5,000 to 6,000 cords per year to meet demand.

Aurora Energy Solutions is having a noticeable effect on the local timber market. It has helped clear a backlog of over-the-counter timber sales that had been available for purchase for multiple years, and has supplied local area residents with high-quality fuelwood that helps improve air quality.

Northland Wood Products, located in Fairbanks, remains the primary purchaser of Tanana Valley State Forest spruce sawlogs. It procures and processes approximately three million board feet annually and supplies interior Alaska with locally processed dimensional lumber, cabin logs, tongue and groove siding and rough timbers.

Personal use firewood sales have remained steady since last year, and usage remains within average 10-year levels. From January 1 through November 2022, the Fairbanks Area sold 198 permits for a total of 758 cords and the Delta Area sold 61 permits for a total of 256 cords.

Regeneration surveys continue every spring in the Fairbanks-Delta Area. Two timber sale units that were surveyed did not meet the required stocking level of 450 trees per acre but are expected to meet that requirement within the allowed 12-year window due to abundant seed trees within and adjacent to the unit. The sales will be monitored and considered for seedling augmentation in the future if needed. A local contractor planted 40,000 seedlings in 2022, focusing on three recently harvested units. Scarification (tilling or ripping of the soil



across the slope) is a common post-harvest treatment to promote natural regeneration.

Road work and maintenance are an ongoing need in the Fairbanks-Delta Area. Contractors and DOF staff work on road projects annually to ensure multi-use access to the Tanana Valley State Forest. Equipment operators, including DOF employees, were busy working on fires this year, but were able to re-establish proper road surface profiles on most of the mainline forest roads before the fire season began in earnest. Contractors upgraded 10 miles of the Cache Creek Road. The work, which was partially funded through a Pittman-Robertson grant, was administered by the Alaska Department of Fish & Game to improve hunter access. Supply chain difficulties made it impossible to replace the Fortune Creek Bridge at the end of the Cache Creek Road upgrades as planned, but it is expected to be completed by the end of August 2023.

### **Tok/Copper River Area**

The Tok/Copper River Area encompasses approximately 30 million acres of private, state, federal, and Native corporation lands in the eastern Tanana River Valley and Copper River Basin. Offices in Tok and Glennallen support initial attack wildland fire response and manage state timber sales.

The highest demand for raw materials from state lands in the Tok Area continues to be fuelwood followed by logs and biomass. There have been requests for house logs and saw timber in the Copper River Area, but fuelwood is the resource in highest demand. Seasonal access and fragmented ownership patterns are the limiting factor for personal use fuelwood in the Copper River Basin.

The Tok Area had an abundant supply of fire-killed spruce for a period of years, but this supply has dwindled greatly or succumbed to rot. The Tok/Copper River Area is exploring other accessible permitted firewood cutting locations. Four commercial firewood operators harvested approximately 210 cords of fire-killed spruce for fuelwood this year. Some value-added products in the Tok Area were used in cabin kit production.

The Alaska Gateway School District continues fire mitigation work to meet its need for fuelwood to

heat the school. The district has tentative plans to develop biomass heating at the Northway school.

DOF and the Alaska Department of Fish and Game are cooperating to improve moose habitat in the Tok River drainage through the timber sale program. The division and ADF&G have discussed sale unit shapes, prescribed fire, and other post-harvest treatments to promote browse species and to improve habitat.

A small operator in McCarthy continues to purchase small sales on state land. The operator has a niche market in the area for dimensional lumber and firewood. Four timber sales laid out in 2020 were expected to supply this operator with raw material for three to four years.

A Community Wildfire Protection Plan is being developed in the Copper River Basin to reduce hazardous fuel loading and create potential biomass markets. Various groups within the Copper River Basin have discussed using the byproducts of fuel break construction as fuel for biomass heating facilities. The Tok/Copper River Area is working closely with these groups to help provide information and support as these discussions progress.

## **Cooperative Forestry**

The Forest Health, Forest Stewardship, and Community Forestry programs provide technical and financial assistance to a diverse group of landowners and managers. The USDA Forest Service funds these programs, contributing over \$1 million in federal funds annually to the state economy. The programs assist Alaska Native corporations, other private forest landowners, businesses, local governments, and non-profits, who contribute matching funds.

### **Forest Health Program**

The Forest Health Program provides a wide range of assistance to forest landowners, resource managers, and others, and is a primary source of forest

health expertise in the state. The program focuses on monitoring native and invasive forest pests, pest management, technology development, and technical assistance. In a typical year, the main way Alaska's forests are monitored is through cooperative DOF and USDA Forest Service Forest Health Protection (FHP) aerial detection surveys. Annual aerial detection surveys are an indispensable tool for documenting the location and extent of many active forest insect infestations, abiotic damage events, and some disease damage. The data recorded during the annual aerial detection surveys offer a snapshot of statewide conditions.

A summary of the 2022 preliminary survey results is included in Surveys Overview below. Some of this survey content as well as more detailed information pertaining to surveys and monitoring for forest insects, tree diseases, invasive plants, abiotic disorders, and other biotic damage agents is included in the annual Forest Health Conditions in Alaska report published by FHP in collaboration with DOF and other key cooperators.

### **Program Staffing**

In 2022, the Forest Health Program hired Dana Brennan as a long-term non-permanent Forest Health Forester. Dana transferred to DOF from the Alaska Department of Environmental Conservation where she worked in the Division of Water's compliance program. Dana brings with her an extensive background in forest entomology and chemical ecology.

### **Surveys Overview**

In 2022, DOF and FHP staff collectively mapped about 900,000 acres of forest damage on the 16.3 million acres surveyed. In order of acres of damage observed, the top three issues documented were western blackheaded budworm-caused defoliation (for the second consecutive year), hemlock mortality associated with the hemlock sawfly and western blackheaded budworm outbreaks, and spruce beetle-caused spruce mortality.

### **Spruce beetle**

Southcentral Alaska is estimated to be in the seventh year of a spruce beetle outbreak. The outbreak has now affected an estimated 1.86 million cumulative acres of mixed spruce and birch forests in the region. Spruce beetle activity was observed

on nearly 48,800 acres in 2022, an approximately 75 percent decrease from 2021 (about 193,500 acres). With the spruce beetle activity trending downward over the last few years, 2018 has been the apparent peak of this outbreak thus far.

About 99 percent of the spruce beetle damage observed in 2022 was in Southcentral Alaska. The most active outbreak continues to be in the northern and eastern Matanuska-Susitna Borough, the southern Denali Borough, and portions of the Kenai Peninsula. The 2022 activity observed within the boroughs affected is summarized below, from north to south.

***Denali Borough*** (13,200 acres): Activity was prevalent in the Cantwell area and north to Riley Creek, as well as east along the Nenana River around Reindeer Hills and along the Denali Highway. The northward expansion of the outbreak is being very closely monitored.

***Matanuska-Susitna Borough*** (5,400 acres): Most of the observed spruce beetle damage was in the northern and eastern portions of the borough, specifically along the Denali Highway and along the upper Susitna River. Damage was also noted along Sanona Creek near its confluence with Tyone Creek and some activity east of the borough boundary around the Glenn Highway towards Tazlina Lake.

***Municipality of Anchorage*** (500 acres): Damage was noted near Little Campbell Creek and north along the Glenn Highway through Eagle River up to the municipality's boundary.

***Kenai Peninsula Borough*** (29,200 acres): Spruce beetle activity has continued to expand on the peninsula, with widespread damage in the Cooper Landing area and parts of the Chugach National Forest. On the western Kenai Peninsula, the outbreak remains active west of Skilak Lake along the Kenai River and from the Kenai area south to near Clam Gulch.

Elsewhere in the state, scattered spruce beetle activity was observed in the Interior, including about 350 acres of damage along Beaver Creek south of Birch Creek. There is also scattered activity along Preacher Creek near its confluence with Rock Creek. No notable spruce beetle activity was documented in Southeast Alaska in 2022.

### **Defoliating Insects**

Southeast Alaska continued to have the most notable defoliator activity in 2022. The **hemlock sawfly** outbreak that began in 2018 in the region had subsided by 2021 and only 1,300 acres of defoliation was observed in 2022. The ongoing **western black-headed budworm** outbreak continued to expand across the Southeast, with widespread damage observed on nearly 685,000 acres in 2022. Ground survey data and field observations suggest that this outbreak may have peaked, though additional defoliation and possible scattered topkill or tree mortality may continue. Within these two outbreaks, the damage has been most severe on Admiralty, Kupreanof, Mitkof, and Kuiu islands. Hemlock mortality attributed to these outbreaks was observed on 73,500 acres in 2022.

**Aspen leafminer** was responsible for about 38,000 acres of defoliation in 2022, spread around the Interior along the Parks Highway between Nenana and Fairbanks and between Salcha and Tok, and along the Tanana River near Manley.

**Birch leafminers** (including *Fenusa pumila*, *Heterarthrus nemoratus*, and *Profenusa thomsoni*) defoliated approximately 21,500 acres in 2022, most of which was concentrated in areas between Fairbanks and Salcha.

In Southcentral, the **rusty tussock moth** outbreak first reported in 2020 appears to have subsided, with no acres of damage observed in 2022 aerial detection surveys and only a few observations of caterpillars reported by the public.

### **State Forest Survey Summaries**

Each year, aerial detection surveys cover portions of the Tanana Valley, Haines, and Southeast State forests. In 2022, about 40,000 acres of damage was

noted within or partially within the three State Forests, with the majority occurring within the Tanana Valley State Forest (approx. 23,500 acres). The top three damage types (in terms of acres affected) for each forest are listed below; all acreages are rounded:

**Tanana Valley State Forest** – Aspen leafminer (20,400 acres), crown discoloration in Alaska paper birch – cause unknown (590 acres), and defoliation in aspen – cause unknown (470 acres).

**Haines State Forest** – Western blackheaded budworm (9,250 acres, including 450 acres in Sitka spruce) cottonwood leafblotch miner (640 acres), and hemlock sawfly (540 acres). Additionally, 190 acres of hemlock sawfly/western blackheaded budworm-induced hemlock mortality was observed.

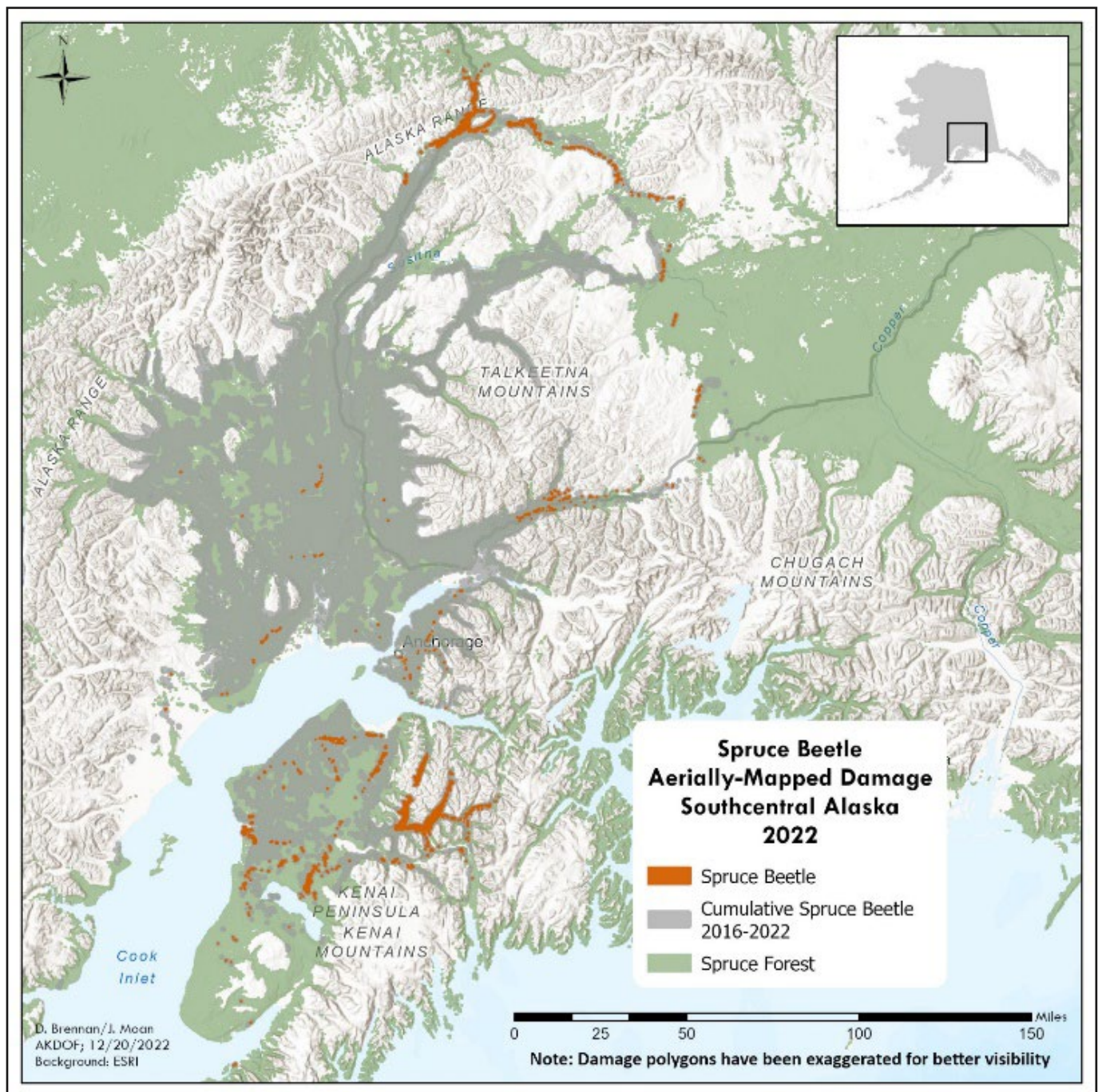
**Southeast State Forest** – Western blackheaded budworm (5,150 acres, including 550 acres in Sitka spruce), hemlock sawfly/western blackheaded budworm-induced hemlock mortality (140 acres), and yellow-cedar decline (55 acres).

### **Western Bark Beetle Initiative**

DOF continued its Western Bark Beetle Initiative (WBBI) cost-share program to assist non-federal landowners with bark beetle prevention, suppression, and restoration. In 2022, staff awarded WBBI funding to one 2020 applicant whose properties had been assessed previously. Staff assessed three applicant properties to award further funds and assessed completed work at three other properties for final project closeout. FHP staff are preparing agreements for additional landowners who applied in 2020.

## **Spruce Beetle Outbreak – Cumulative**

This map illustrates the area impacted during the current spruce beetle outbreak in Southcentral Alaska, as observed during aerial forest health detection surveys. These surveys cover only a portion of the state's forests each year and it is likely that there is spruce beetle damage adjacent to the mapped areas.



### Outreach

In 2022, DOF Forest Health staff connected with about 566 individuals, providing forest health



assistance or information. Outreach contacts increased by more than 40 percent compared to 2021.

Forest Health staff gave numerous presentations to a variety of audiences, including the Alaska Board of Forestry, the Alaska Pesticide Applicators Conference, Denali National Park & Preserve Interpretation staff, and Denali Borough staff. The primary topic was spruce beetles. Forest Health staff also teamed up with University of Alaska Fairbanks Cooperative Extension Service (CES), Alaska Project Learning Tree, and Ahtna, Inc. to deliver a virtual public workshop on spruce beetles for the Cantwell area; additional DOF staff were involved as well. Forest Health and DOF Forest Stewardship staff copresented in a CES-led webinar series, *From the Ground Up*, focused on small woodlot management and bark beetles.

Forest Health Program Manager Jason Moan co-authored two recent publications:

1. Fettig, C., Asaro, C., Nowak, J., Dodds, K., Gandhi, K., Moan, J., Robert, J., 2022. Trends in bark beetle impacts in North America during a period (2000–2020) of rapid environmental change. *Journal of Forestry*. 44(10): 8847.
2. Mafra-Neto, A., Wright, M., Fettig, C., Progar, R., Munson, S., Blackford, D., Moan, J., Graham, E., Foote, G., Borges, R. and Silva, R., 2021. Repellent semiochemical solutions to mitigate the impacts of global climate change on arthropod pests. In *Advances in Arthropod Repellents* (pp. 279-322). Academic Press.

### Applied Research

DOF Forest Health staff assist in evaluating improved methodology for protecting trees from spruce beetle. This work consists of two ongoing projects, both being conducted in conjunction with the USFS Pacific Southwest Research Station and Forest Health Protection:

- Systemic pesticide spruce beetle tree protection study
  - Initiated in 2018, the study trees were treated in 2019, and 2022 was the last year of reassessment.
- SPLAT MCH spruce beetle tree protection study

- SPLAT-MCH (ISCA Technologies, Inc) is a biodegradable paste infused with the spruce beetle anti-aggregation pheromone MCH. This was the second year of this effort built on the trap-based results from 2021. The 2022 work took place on the Chugach National Forest and tested SPLAT-MCH in combination with other semiochemicals for protecting individual trees. Semiochemicals are compounds produced by one organism that influence the behavior of another organism, such as pheromones or components of tree sap. The study will continue in 2023.

DOF Forest Health staff are also collaborating on two spruce beetle and forest health-related projects with the University of Alaska Fairbanks and with DOF Forest Inventory on a USFS-funded spruce beetle evaluation monitoring project. Additionally, rusty tussock moth egg masses that DOF Forest Health staff provided to a University of Idaho researcher by request in 2021 were found to be heavily parasitized. In 2022, that parasitoid was confirmed as *Telenomus dalmanni*, a known parasitoid of rusty tussock moth. This confirmation may be the first record of this presumed native species



in Alaska.

Forest Health Program Manager Jason Moan (L) and USDA Forest Service Pacific Southwest Research Station ORISE Postdoctoral Scholar Jackson Audley review the data during installation of treatments for a 2022 spruce beetle tree protection project being led by Dr. Audley. (Ashley List)

## **Forest Stewardship Program**

The goal of the Forest Stewardship Program is to provide technical forestry assistance to landowners to help guide their decisions about how to manage their forest land. Landowners have a variety of goals for their land, including wildfire risk reduction, wildlife habitat improvement, privacy, scenery, firewood production, and leaving a legacy for future generations. Funded entirely by the USDA Forest Service State & Private Forestry, the nationwide program responds to the requests of landowners to prepare Forest Stewardship Plans that include field visits and the latest technical forestry advice. Plans often address forest health, reforestation, timber stand improvement, and defensible space from wildfire.

Alaska Native corporations are the largest private landowners in Alaska and DOF provides sub-grants to allow them to hire private consulting foresters to prepare Forest Stewardship Plans. Plans for individual private landowners are written primarily by DOF stewardship foresters.

### **By the Numbers**

Nationwide, 21.5 million acres are managed under a current Forest Stewardship Plan. In 2022, Alaska represented 18 percent of these acres.

More than 1,100 Alaskan landowners and thousands of Alaska Native corporation shareholders have benefitted from Forest Stewardship Plans.

### **2022 Highlights**

- One Alaska Native corporation completed a Forest Stewardship Plan for 352,900 acres after COVID-19 travel restrictions in remote villages delayed work for two years.
- Two Alaska Native corporations with sub-grants are developing Forest Stewardship Plans that will cover more than 51,000 acres.
- Twenty-four Forest Stewardship Plans covering more than 700 acres were prepared for individual forest landowners.
- More than 22 homeowners completed wildfire fuels reduction projects using federal cost-share grants, and more than 40 defensible space assessments were made in 2022.

## **Alaska Native Corporations**

Alaska Native corporations own the most private land in Alaska and providing sub-grants that allow these corporations to develop Forest Stewardship Plans is an important service of the Forest Stewardship Program. Biomass energy development, commercial timber production, forest health enhancement, forest resilience, wildlife habitat, and reforestation were all important goals of Alaska Native corporations in 2022.

Since the Forest Stewardship Program began in 1992, 69 plans covering more than 7.6 million acres have been written for Alaska Native corporations; plans expire after 10 years, meaning that 3.9 million forested acres are currently being sustainably managed with guidance from a professionally written forest management plan. These plans help guide sustainable timber development and commercial operations, bring economic benefits to rural villages, and help restore logged areas for traditional land values. Other benefits include the potential to sell carbon credits on the California carbon credit market and elsewhere, which several Alaska Native corporations have successfully done after completing Forest Stewardship Plans.



Storm damage in a stand of mature white spruce. Fairbanks Stewardship Forester Nick Lisuzzo helped the landowner develop a plan to restore the damaged forest. (Nick Lisuzzo).



## Individual Landowners

Foresters prepared Stewardship Plans for 24 private landowners, covering more than 700 acres in 2022. Wildfire defensible space, spruce beetle mitigation, and reforestation were primary goals for individual landowners. Since 1992, over 1,100 individual landowners have adopted Forest Stewardship Plans covering a total of more than 53,000 acres. Most Stewardship Plans are for landowners in the Matanuska-Susitna, Fairbanks North Star, and Kenai Peninsula boroughs.

## Cost-Share Assistance and Competitive Grants

Forest Stewardship Program personnel advise private forest landowners on ways to mitigate the risk of wildfire. Wildland Urban Interface Grants from the USDA Forest Service and Council of Western State Foresters fund cost-share payments to landowners to conduct fuels reduction projects. More than 22 homeowners completed work on these projects in Delta Junction and the Kenai Peninsula Borough in 2022.

## Forest Stewardship Staff

**Interior Alaska:** Nick Lisuzzo was hired as the Stewardship Forester in the Fairbanks office, serving private landowners north of the Alaska Range. 2022 was a good year for Forest Stewardship in the Northern Region with 18 new forest management plans covering 580 acres of private land completed. Both the number of participants and acreage for the year were more than twice the program's 30-year average for the area, and three times the average for the last decade. In addition, hundreds of public contacts were recorded through landowner assistance and outreach, including over 30 wildland fire risk assessments, seven outreach events, and cooperative projects with the Fairbanks Soil & Water Conservation District (SWCD), the US Fish and Wildlife Service, the Natural Resources Conservation Service, the Fairbanks Folk School, and Project One Tree Alaska.

**Southcentral Alaska:** For the first time in nearly a decade, the DOF Matanuska-Susitna Area will have a full-time Stewardship Forester stationed in Palmer to serve landowners and offer information on restoring privately owned forests following the spruce beetle outbreak. This position will be hired in 2023.



John Winters retired this year after serving the state in a variety of locations and positions for 32 years. (Trevor DoBell-Carlsson)

**Kenai Peninsula:** After 32 years of service with the division, John Winters retired. John served as the Stewardship Forester on the Kenai full time since 2016 and created the Stewardship Self Study Guide (available on the DOF Stewardship website). This document allows DOF to serve landowners with smaller acreages and in remote locations as landowners can work through the document to create their own forest management plans, to be certified by DOF staff.

John's service in Alaska stretched from Juneau to Tok, from forest practices inspections to timber sales, to fire assignments, culminating in working with private landowners whose management of Alaska's forestlands have tremendous impacts on the wildland urban interface fire environment. John's work helped hundreds of Kenai Peninsula Borough landowners learn more about forest management and become more involved in protecting their properties from wildfire and forest health threats. This position will be filled in early 2023.

## Project Learning Tree

Project Learning Tree (PLT) is a nationwide program providing K-12 outdoor educational curriculum and training to help educators bring the natural world, including forestry, into the classroom — or bring the classroom to the outdoors. It is overseen nationally by the Sustainable Forestry Initiative (SFI). The Forest Stewardship Program has funded PLT in Alaska at a 75 percent level since 2019, allowing for the hiring of a PLT coordinator in partnership with the Wasilla Soil & Water Conservation District. The USDA Forest Service State & Private Forestry provided funding in 2019, and additional funds will allow the program to continue from December 2022 into 2025. The Forest Stewardship Program administers the funds through a sub-grant to the Wasilla SWCD, which houses the position. The PLT coordinator has also received funding from a WUI grant, SFI, and the Alaska Working Forests Group. More information on PLT can be found at <https://www.plt.org/>

In 2022, Alaska PLT reached more than 130 educators throughout the state, connecting them with opportunities for professional development, fire education, and forest-based curricula correlated to the Science Standards of Alaska. Alaska PLT partnered with the Renewable Energy Alaska Project to offer two online training courses. Forty teachers received university credit by engaging in 45 hours of work. A 2021 Wildland Urban Interface (WUI) grant, awarded to the Alaska Natural Resource and Outdoor Education Association through DOF funding, allowed teachers in 2022 to receive fire education through a course that combines PLT's online training with five Alaska-specific fire education modules. This course allowed educators from remote areas such as Aniak and St. Michael to interact with educators from urban areas, including Wasilla and Anchorage.

Alaska PLT held two teacher training workshops at Alaska Geographic's field camp in Denali National Park and Preserve. Funds from the WUI grant and the Sustainable Forestry Initiative's 2022 Education Grant allowed the workshops to be more affordable and provided free copies of PLT educator guides. The workshops helped educators gain a better understanding of Alaska's ecosystems and changing fire regime, with themes of Fire in Alaska and Climate Change.

Alaska PLT continues to promote and introduce foresters and natural resource professionals to the most recent work from National PLT, such as the Forestry Literacy Framework funded by the USDA Forest Service, Green Jobs: Exploring Forest Careers, a guide that engages youth ages 12-25 in researching forestry jobs and in practicing managing and monitoring forest resources, and the Explore Your Environment K-8 Activity Guide.



Teachers at a workshop in Denali National Park and Preserve focused on Alaska's climate and ecosystems. (*Molly Gillespie, Alaska PLT Coordinator*)



Willow Crest Elementary students in Anchorage learned to identify trees in a nearby park, then chose one to observe over time. Here, they are recording observations in their forest classroom. (*Molly Gillespie, Alaska PLT Coordinator*)



## 2022 Forest Stewardship Committee

The Forest Stewardship Program receives guidance from the Forest Stewardship Committee, which is comprised of representatives from a broad range of private landowner and land management interests. Areas of discussion include grant and cost-share rates, eligibility criteria, outreach methods, and Forest Stewardship Plan requirements. A priority in 2023 will be to recruit new members for a more active committee.



Thermokarst, terrain with marshy hollows caused by thawing permafrost, is found in some interior Alaska forests. Fairbanks Stewardship Forester Nick Lisuzzo uses satellite and aerial imagery to determine thermokarst locations to help guide forest landowners who want to prevent or slow future permafrost thawing. (*Nick Lisuzzo*)

## 2022 Forest Stewardship Committee

Clare Doig, Consulting Forester, Forest & Land Management Inc., Anchorage

Priscilla Morris, Wood Biomass and Forest Stewardship Coordinator, USDA Forest Service State & Private Forestry, Anchorage

Sue Rodman, Alaska Department of Fish and Game, Anchorage

Chris Tcimpidis, Natural Resources Conservation Service Alaska Forester, Palmer  
Clay Hoyt, Staff Forester, Chugachmuit Inc.



Stewardship Program Manager Trevor DoBell-Carlsson served as a resource advisor on the Minto Lakes fire in Fairbanks, creating a repair plan for dozer lines. (*Trevor DoBell-Carlsson*)

)

## Community Forestry Program

City trees and greenspaces confer many health, social, economic, and environmental benefits but they need care to maximize these benefits. The Community Forestry Program (CFP) helps communities enhance these benefits through effective management.

Two program staff, funded through a partnership with the USDA Forest Service (USFS), offer technical and educational assistance to local governments, state and federal agencies, tree care professionals and nonprofit organizations.

The Alaska Community Forest Council (ACFC) helps set priorities for the program and provides expertise and advice to the division. The fifteen-member council represents the diversity and broad spectrum of interests and experiences in the state, and the members are valuable partners in local community forestry efforts.

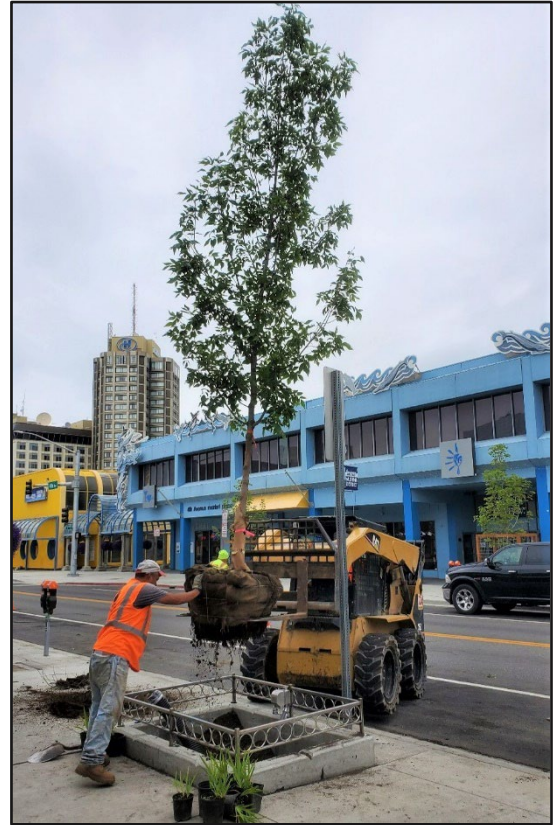
Supporting community forestry is an important role for state government because:

- Community forests provide essential services and benefits that we cannot live without
- A healthy community forest is the result of proper planning, management, and community investment
- Healthy community forests can help solve community problems
- Community forests and rural forests are connected and good management of one helps the other.

### Community Assistance in Anchorage

**Bureau of Land Management (BLM) Campbell Tract Seedlings:** Community Forestry staff, the USFS, BLM, Anchorage Parks Foundation, and Hilltop Ski Area dug approximately 200 native spruce seedlings from a BLM firebreak at Campbell Tract. Community Assistance Forester Josh Hightower demonstrated proper transplanting and Anchorage Parks and Recreation and Hilltop Ski Area staff replanted the seedlings.

Widespread tree mortality caused by the spruce beetle outbreak has led to an increased demand for seedlings and local supply has proven inadequate. CFP will continue promoting seedling collection like this in public rights-of-way and firebreaks throughout the state.



Workers plant an ash tree in a new Silva cell on 4<sup>th</sup> Avenue in Anchorage. Silva cells provide the increased soil volume needed for trees to thrive and reach a mature size. (Josh Hightower)

**Downtown Street Trees:** Jackson Fox Director of Fairbanks Area Surface Transportation (FAST) Planning gave presentations to several Anchorage civic groups on the successful street tree plantings along Cushman Street in Fairbanks. He discussed Complete/Green Streets and opportunities to plant more street trees in Anchorage.

CFP staff hosted a downtown Anchorage walking tour with newly appointed MOA Horticulturist Luis Lemus. The tour focused on invasive trees, the high mortality rate of street trees, and strategies to increase survival and retention of street trees. They toured the upgrades along 4<sup>th</sup> Avenue and newly planted trees in Silva Cells. Silva cells create large volumes of soil and are one of the most effective ways to grow and sustain mature street trees.

There are plans to upgrade the remainder of 4<sup>th</sup> Avenue, however the trees may not receive the same level of consideration. CFP is promoting a “Complete Streets” approach and will engage with MOA staff, downtown civic groups, and DOT to ensure that street trees and green infrastructure are given adequate consideration.





Paul's Tree Service employees participated in the Saluting Branches event at Fort Richardson National Cemetery. This is the largest annual volunteer event in the tree care industry, where arborists donate their services to honor American service members. (Josh Hightower)

**Saluting Branches: Arborists United for Veteran Remembrance:** Paul's Tree Service, Turnagain Tree Care, Boreal Tree Care, and Team Rubicon volunteered on a nationwide service day at the Fort Richardson National Cemetery. The event, organized by the non-profit Saluting Branches: Arborists United for Veteran Remembrance, is the largest one-day volunteer event in the tree industry. On September 28, 3,000 volunteers donated their time to caring of trees at 83 veteran properties across the United States.

**Remove & Replace Program:** In 2022, CFP continued to encourage and incentivize Anchorage homeowners to remove invasive European bird cherry (*Prunus padus*) and chokecherries (*Prunus virginiana*) and replace them with appropriate tree species. After final inspections, 35 homeowners were issued \$100.00 vouchers for a replacement tree from a nursery. Participating nurseries are Bells, Alaska Mill and Feed, Arthur Campbell, and Green Earth Landworks. The program expects to complete all inspections and issue the remaining vouchers in 2023.

**Anchorage Soil & Water Conservation District (ASWCD):** The CFP helped reestablish the Anchorage Soil & Water Conservation District in 2021. In 2022, the ASWCD hired two part-time staff and developed a work plan. It is active in invasive species management, including *Prunus*. Community Forestry supports the ASWCD goal to form a tree

subcommittee to focus on replacing spruce lost to the spruce beetle, removing invasive *Prunus* species, replanting downtown street trees, and increasing the overall tree canopy in Anchorage.

**Potter Marsh Watershed Community Forest:**

Community Forestry assisted the Municipality of Anchorage Heritage Land Bank in applying for a grant from the USFS to help create the Potter Marsh Watershed Community Forest. The application relied in part on the 2010 Anchorage Forestlands Assessment prepared by CFP. These USFS Community Forest Program competitive grants are offered to tribal entities, local governments, and qualified conservation non-profits to acquire and establish community forests.

**Alaska Run For Women:** For the third year in a row, the CFP program collaborated with the Arbor Day Foundation and Anchorage Parks and Recreation to give away trees at the annual Alaska Run For Women. The race was held in person for the first time since 2019. One hundred seedlings were harvested from Chugach National Forest, using funds donated by FedEx, and distributed to participants. Over 3,500 participants from all 50 states and the District of Columbia took part in the event.



One hundred potted seedlings were given away at the Alaska Run for Women. (Jim Renkert)

**National Association of State Foresters Grants**

CFP continued the National Association of State Foresters Centennial School Tree Challenge. It funds educational tree planting events at public schools and the purchase of native trees, seedlings, or orchard trees. The CFP also initiated the "TreeVitalize" grant program for Alaska schools.



## Green Infrastructure Grants

The CFP awarded a green infrastructure grant to the Southeast Alaska Watershed Coalition to construct a biofiltration swale next to Jordan Street in Juneau. Additional grants will be awarded in 2023.

## Education

For the first time since the pandemic began, it was possible to attend national trainings and conferences in person. In October staff attended the Pacific Northwest Chapter of the International Society of Arboriculture's Training Conference in Coeur d'Alene, Idaho. In November staff attended the State and Federal Urban and Community and Forestry Coordinators meeting followed by the Arbor Foundation's annual Partners In Community Forestry conference. Beth Nordlund, the Anchorage Park Foundation Executive Director, also attended.

## Arbor Day

Alaska celebrates Arbor Day on the third Monday in May, which occurred on May 16 in 2022.

- On May 14, Alaska Community Forest Council member and owner of Paul's Tree Service, Paul Guzenski, donated six spruce as part of his "Spruce Up Anchorage" program. CFP staff and Girl Scout Troop 22001 planted the trees in Campbell Park.
- Staff attended a tree planting at Orion Elementary School at Joint Base Elmendorf Richardson.
- On May 20, staff took part in a planting at the Army Troop Medical Clinic with Girl Scout Troops 20051 and 210 and with Major General Eifler presiding. This planting was featured on KTUU news. <https://www.alaskasnews-source.com/2022/05/21/jber-presented-with-tree-city-usa-award/>
- The Municipality of Anchorage Arbor Day planting was also featured on KTUU: <https://www.alaskasnews-source.com/2022/05/17/celebrating-alaskas-arbor-day/>
- Arbor Day celebrations were reported in Fairbanks, Fort Wainwright, Palmer, Wasilla, Ketchikan, Juneau, and McGrath. In McGrath students and staff removed invasive choke-cherry trees. In Fairbanks homeschooled children planted a tree and hung ornaments with messages to the children of Ukraine. The ornaments and messages were collected afterwards and sent to Ukrainian child refugees.

To celebrate Arbor Day and to fulfill one of its Arbor Day Foundation Tree Line USA requirements Golden Valley Electric Association gave away 2,500 Siberian crabapple trees in Delta, Fairbanks, Nenana, and Healy.



Homeschooled children in Fairbanks celebrate Arbor Day by planting a tree and decorating it with messages for children in Ukraine. (Jim Renkert)

## Arbor Day Foundation Recognition

The national Arbor Day Foundation recognized seven Alaska communities, three military bases, three utilities, and one university for their efforts to protect and enhance community forests:

**Tree Cities USA:** The City of Wasilla, Ketchikan Gateway Borough, Joint Base Elmendorf-Richardson, Eielson Air Force Base, Fort Wainwright, Fort Greely, and the Municipality of Anchorage.

**Tree Lines USA:** Chugach Electric Association, Golden Valley Electric Association, and Matanuska Electric Association.

## Tree Campus Health Care and Tree Campus K-12:

The Arbor Day Foundation implemented these new programs in 2019. As life in hospitals and schools returns to normal after the COVID 19 pandemic, the CFP will assist interested institutions in meeting these standards.

**Tree Campus Higher Education:** The University of Alaska Anchorage retained its Tree Campus status and Alaska Pacific University made significant progress in meeting the standards.

### Invasive Species

In 2019, the USFS awarded the CFP a grant to address the invasive tree species *Prunus padus* (European bird cherry) and *Prunus virginiana* (chokecherries). A third round of grants was issued in June. Grantees included the Fairbanks Soil & Water Conservation District, Homer Soil & Water Conservation District, Citizens Against Noxious Weeds in the North (CANWIN) in the Anchorage Cooperative Invasive Species Management Area (CISMA), and the Talkeetna Community Council. All four grantees had successfully completed earlier *Prunus* grants.

The CANWIN-CISMA grant controlled invasive chokecherries in Anchorage at Tikishla, Kincaid, Taku Lake, Winchester, and Spruce parks; several locations in Chugach State Park; and at Potter Marsh in the Seward Highway right-of-way. The Anchorage CISMA also helped coordinate the Anchorage Invasive Weed Smackdown at Tikishla Park that had approximately 85 volunteers. The Weed Smackdown was promoted through a Public Service Announcement on KSKA Public Radio. The Airport Heights Community Council organized two additional events with about 30 total volunteers.



A dense *Prunus* invasion follows the removal of mature trees. These seedlings, near Tikishla Park in Anchorage, will be removed using chemical and mechanical control actions. (Josh Hightower)



The University of Alaska Anchorage celebrated Arbor Day and the renewal of its Tree Campus USA status by planting a “Perfect Purple” crabapple in May. (Patricia Joyner)

The Homer Soil & Water Conservation District (S&WCD) worked on 24 parcels of land in Homer, Soldotna, Hope, Moose Pass, Cooper Landing, and Seward. Work on at least ten properties was funded by the CFP grant. The grant also funded a low-cost fixed wing aerial survey in the Nikolaevsk area and public service announcements on two Kenai Peninsula radio stations.

The exceptionally wet weather in the fall prevented three 2020 and 2021 grantees from completing their projects before the deadline. The CFP issued grant extensions to the Talkeetna Community Council, UAA, and Homer S&WCD. A final round of grants awards will be announced in 2023.



Anchorage organizations and volunteers harvest spruce seedlings from a BLM firebreak in Campbell Tract to replace spruce killed by beetles. (Josh Hightower)



## Community Forestry Organizations

In 2022, volunteers donated over 987 hours to community forestry projects in Alaska. Citizen groups around the state organized volunteers, applied for grants, raised funds, supported tree planting and care, and offered educational programs. CFP also engaged with other organizations that are involved in tree plantings, received a grant, or organized events to remove invasive species:

- Municipality of Anchorage
  - Parks & Recreation Department
  - Heritage Land Bank
  - Project Management & Engineering
  - Planning Department
  - Watershed Management
  - Alaska Botanical Gardens
  - Anchorage Park Foundation and APF-Youth Employment in parks
  - Government Hill Commons
  - Eagle River Garden Club
  - Anchorage Soil & Water Conservation District
  - Society of American Foresters – Cook Inlet Chapter
  - Airports Heights Community Council
  - Alaska Run For Women
- Alaska Department of Transportation & Public Facilities
- Alaska Community Forest Council
- University of Alaska
- University of Alaska Fairbanks Cooperative Extension Service
- Fairbanks Arbor Day Committee
- Juneau Urban Forestry Partnership
- McGrath School
- Homer Soil & Water Conservation District
- Palmer Soil & Water Conservation District
- Wasilla Soil & Water Conservation District
- Southeast Alaska Watershed Coalition
- Alaska Food Policy Council
- FedEx
- Project Learning Tree
- Girl Scouts

## Alaska Community Forest Council

In 2022, the Alaska Community Forest Council met in March, May, August, and October. The council met in person in May and August and virtually in March and October. The October meeting included a presentation by consulting arborist Gordan Mann entitled “Trees as a Community Asset,” which was open to the public and offered a continuing education unit for certified arborists.

Chugach Electric Association, Paul’s Tree Service, and the Society of American Foresters Cook Inlet Chapter each donated \$1,000 to the council to support its mission.

After many years of dedicated and enthusiastic service the council said farewell to two members, former chair Laura Charlton of Ketchikan, and treasurer Nathan Lojewski of Anchorage. They were thanked for their service to the division and to their communities.

In March, the USDA Forest Service hired Stephen Baker as the new Urban & Community Forestry Program Manager for the Alaska and Pacific Northwest regions. He is based in Portland. Stephen made his first trip to Alaska in May to learn about Alaska and the Community Forestry Program.

### Alaska Community Forest Council 12/ 2022

Arborist, Paul Guzenski, Anchorage  
Forester, Dan Rees, Fairbanks  
Municipal Planner, Vacant  
Landscape Architect, Elise Huggins (Chair), Anchorage  
Horticulture, Patrick Ryan, Anchorage  
Construction/Right-of-Way, Robert Gorman, Anchorage  
Small Community Service, Mitch Michaud (Treasurer), Soldotna  
Community Forestry/Beautification, David Ezra Jay, Anchorage  
Industry/Business, Anthony Lindfors, Palmer  
UAF Cooperative Extension Service, Alex Wenninger (Secretary), Anchorage  
Member-at-Large, Adam Davis, North Pole  
Member-at-Large, Gatgyeda Haayk, Metlakatla  
Member-at-Large, Emily Becker, Anchorage  
Member-at-Large, Kathleen Heindl, Kenai  
Member-at-Large, Meg Burgett, Wasilla



# FIRE PROTECTION PROGRAM

## 2022 Fire Season

2022 was a tale of two fire seasons. The season began with a near record snowpack in much of the state that quickly melted and was followed by a record drought. As the spring fire season transitioned to summer, Alaska experienced nearly two weeks of lightning that triggered hundreds of starts from Dillingham to the Brooks Range to the west coast of Alaska to the Canadian border.

Many of the fires were in southwest and western Alaska including the Lime Complex that was spread over 19 million acres and included 18 fires. In state protection areas a total of 356 fires burned over 1.5 million acres. The statewide total was 590 fires for 3.1 million acres burned, one of the highest number of acres burned in the last 20 years. A challenge unique to 2022 was that the number of acres burned, and fire starts were almost entirely in the month of June. The weather in early July transitioned to what would become one of the wettest summers in Alaska's recorded history.

To battle the heavy June fire load, Alaska's fire protection agencies relied on Lower 48 and Canadian assistance. Many of the fires were in remote settings and required extensive aviation support. Alaska filled over 275 fixed wing firefighting and logistical support aircraft orders, dropped 277 loads of retardant from air tankers, and filled 122 helicopter orders. Alaska imported 48 hand crews from the Lower 48 and filled crew orders with Alaskan-based crews on only 16 incidents. By comparison, in 2004 and 2005, the last similar seasons, Alaska used local crews over 60 times. Fortunately, last year the Legislature reinstated the Fire Academy to increase Alaskan crew availability to fight fires.

DOF supported the Lower 48 by, sending 350 firefighting personnel and air attack fixed wing aircraft to 15 states. The Alaska Incident Management Team was deployed to Oregon to manage the Cedar Creek incident, one of the largest fires in the U.S. this summer. Additionally, two engine strike teams were sent to Washington and Oregon for more than two months. Mutual agreements allow states and the federal government to request and share firefighting resources.

### 2022 Fires by Protecting Agency

Agency	Fires	Acres
AFS - BLM	222	1,537,952.4
STATE - DOF	414	1,575,418.9
USFS	31	11.2
<b>TOTAL</b>	<b>667</b>	<b>3,114,049.5</b>



Chinook helicopter performs water bucket lift on Clear Fire. (DOF & Pacific Northwest Team 10)

## 2022 Acres Burned by Landowner

Landowner	Acres
AK Native Claims Act Lands	183,105.6
Borough & City	64.9
Bureau of Indian Affairs	3,938.7
Bureau of Land Management	700,630.4
Department of Defense	667.6
National Park Service	28,799.3
Private	3,349.5
State	1,823,027.0
U.S. Fish & Wildlife Service	369,794.8
U.S. Forest Service	4.5

*Number of fires reflects landownership at origin.  
Total acres by landowner are subject to change.*

## Record High Fire Seasons 1950-2022

Year	Fires	Acres
2004	701	6,590,140
2015	768	5,111,453
1957	391	5,049,661
2005	624	4,649,597
1969	685	4,231,820
1990	750	3,189,079
2022	562	3,107,470
2009	516	2,934,608
2019	719	2,589,893

## 2022 Wildfires by Cause and Protection Area

Cause	All Fires		State DOF		AFS		USFS	
	Fires	Acres	Fires	Acres	Fires	Acres	Fires	Acres
Campfire	29	272.6	26	267.8	1	4.6	2	0.2
Debris Burning	99	169.9	93	127.7	5	42.1	1	0.1
Equipment	27	10,313.6	27	10,313.6	-	-	-	-
Firearms/Blasting	6	926.0	6	926.0	-	-	-	-
Fireworks	2	0.2	2	0.2	-	-	-	-
Incendiary/Arson	5	0.9	5	0.9	-	-	-	-
Natural (Lightning/Coal)	280	3,101,422.8	107	1,566,312.0	171	1,535,110.5	2	0.3
Miscellaneous	60	97.0	38	10.0	22	87.0		
Powerline	30	5.2	30	5.2	-	-	-	-
Smoking	5	0.6	5	0.6	-	-	-	-
Undetermined*	28	33.2	26	33.1	-	-	2	0.1

*\*Investigated but cause undetermined.*



The Lime Complex Fire in southwest Alaska was the state's largest in 2022. (Shannon Marie Dunfee)

## Tim Mowry

Information Officer II Tim Mowry left the division in May to accept a job with the Alaska Department of Fish & Game. Tim joined the Division of Forestry in August 2014. He brought excellent writing and communication skills from his years at the *Fairbanks Daily News Miner*. In addition to his position with DOF, Tim was a member of the Alaska Type 1 Incident Management Team as a public information officer responding to wildfires throughout the western United States.

He is greatly missed in the many roles he played, and his shoes will be difficult to fill. The division will hire a new Information Officer before the 2023 fire season begins.



Incident Commander Tom Kurth (R) and Public Information Officer Tim Mowry in the information yurt on the Umpqua North Complex Fire in Oregon during deployment of the Alaska Type 1 Incident Management Team in August 2017 at Glide, Oregon. (Jim Schwarber)



Clear Fire on July 5 (DOF & Pacific Northwest Team 10)



## Fire Logistics

### State Fire Cache Warehouse

The State Fire Cache Warehouse had an above average workload in the 2022 fire season. The warehouse system tallied \$16.5 million in material issues to wildfires. Three cache vans were deployed to support both state and federal fires. The Fairbanks warehouse supported multiple Type I and Type II incidents. The Palmer Warehouse was tasked with the logistically challenging Lime Complex in the Southwest Area. The warehouses also supported DOF Area caches and extended attack fires. Seven warehouse employees traveled to Lower 48 wildfire assignments for a total of 18 weeks. Federal cooperators at the Rocky Mountain Fire Cache and the Alaska Fire Service borrowed \$3 million of supplies. The warehouse did not need to request staff support from the Lower 48 this season as regular employees and local emergency firefighters were adequate.



Equipment being returned for inspection after fires.  
(Teresa Rose)

## Communications

The division's communication staff programed and updated the hundreds of handheld radios that are vital to the safety of firefighting forces who must stay informed during the dynamic response to wildfire. With all the activity there were over 1,000 radios in use in the state. The programmer also repaired 45 radios and has 43 more waiting for repair. Technicians installed and maintained mobile radios that are fixed in vehicles and repaired nine other vehicles. Cell on wheels, self-contained communication systems that improve cellular connectivity, were successfully used on larger incidents accessible by road. Partners at the Department of Public Safety and the Alaska Fire Service also aided in successful radio communications.

### Ground and Other Support

In addition to supporting the division's regular fleet of vehicles and equipment, staff hired 1,317 pieces of equipment to assist in the fire effort. This included boats, excavators, dozers, trucks, cars, and ATVs. Staff also supported incident management teams, which average over 50 members.

DOF hosted two Type 1 teams, the largest support organization for fire; two Type 2 teams, the next largest; six incident management teams; and three Type 3 teams for smaller fires.

The division opened two mobilization centers, one at the University of Alaska Fairbanks and the other at the University of Alaska Anchorage, to receive and demobilize out-of-state resources. There were 881 overnight stays for incoming firefighters and 432 overnight stays for outgoing firefighters. More than 2,000 firefighters in the field needed remote logistical support. After three days of eating military meals ready to eat (MREs), firefighters order food boxes. A contractor supplied 4,572 food boxes, which DOF employees transported by truck or air to remote fires.



Retardant drop on Clear Fire, July 9. (DOF & Pacific Northwest Team 10)

## Aviation Program

2022 was a year of change for the Aviation Program, some changes were positive, but there were also times of loss. The division bid farewell to two long time-employees. Aviation Manager Steve Elwell retired in January after serving the state for 24 years. Pilot Chuck Greer retired in October after eight fire seasons. Britt Goudy joined the division, replacing pilot Mark Jordan. Britt is a long time Alaskan and Palmer resident who has flown the DC-6 all over the state. He brings years of experience and many good stories with him.

Employees also moved into new positions within the Aviation Program. Robert Hoecher moved from aircraft inspector to aviation officer, replacing Steve Elwell. Aircraft mechanic Thomas Abbe stepped into the aircraft inspector position. Doug Burts, chief pilot, completed training himself and trained two new pilots before the fire season started. Candy Turner kept people and paperwork organized and moving during the hiring, retirements, and moving of positions.

The division's four aircraft totaled 1,000 flight hours this year, with the two turbine commanders flying over half those hours. Chief pilot Doug Burts and air attack Tim Whitesell took the commander 1000 (N905AK) on assignment to the Lower 48 from early August into October and logged just over 250 hours of flight time by the end of the year. This also provided an opportunity for pilot.

Pilot Chuck Greer and air attack Duane Morris put more than 250 hours on the Commander 690C (N840AK). A DHC-2 N904AK (Beaver), acquired through the USFS Federal Excess Property Program,

was used for logistical support, training, aerial firing, mapping missions, and fuel barrel movement all over Alaska.

The division received a slightly used 1996 Cessna 208B Caravan with 28,000 hours for McGrath. This aircraft turned out to be the workhorse the division needed, logging 500 hours of service by the end of the year.

The air tankers were retired and parked at air museums around the world. DOF's Convair CV-580 tanker had a great service record for its 15 years of use. The new tanker contract was expected to be awarded in mid-December. The helicopter contracts remained with the same vendors and there are no major changes expected other than adding a fuel tank or truck to the Soldotna contract.

The division experienced a rare and tragic accident this year. On June 26, while working on the Clear Fire, pilot Doug Ritchie of Northern Pioneer Helicopters, was killed in a helicopter accident. Doug was a friend to many in the fire service and the entire Alaska aviation community, a true, quiet professional, whose loss continues to be felt. The division offered condolences and support to Doug's family and made a Critical Incident Stress Management Team available to support dispatchers, firefighters, and others impacted by the accident.

This was a tragic reminder that fire service is an intrinsically dangerous profession, and not just on the fireline. All aspects of operations include inherent risks and personnel often work extended hours with limited rest. Commissioner Corri Feige and State Forester Helge Eng expressed their pride in the high level of professionalism in DOF and appreciation for the dangerous work done to protect the lives and property of Alaskans.

The division is cooperating in the National Transportation Safety Board and Occupational Safety & Health Administration investigation.

A tee-shirt was designed to honor Doug's memory.



## National Fire Plan

The National Fire Plan was adopted in 2000 to reduce the threat of fire in wildland urban interface areas by providing competitive grants to states. Funds are available for wildfire prevention and education programs, mitigation, capacity building, and homeowner and community assistance. The Division of Forestry & Fire Protection supports a variety of educational and mitigation projects funded by the USDA Forest Service.

State Fire Assistance and Volunteer Fire Assistance funding supports the division's ability to respond to wildland fires and the impacts to communities and to maintain sufficient firefighting capacity. The program ensures delivery of an efficient, uniform, and coordinated wildland fire protection program.

DOF protects 150 million acres of land, of which 85.2 million acres are federal lands managed by the Bureau of Land Management, Bureau of Indian Affairs, US Fish & Wildlife Service, or National Park Service. As Alaska's population continues to move into urban interface areas, the number of human-caused fires in these critical fire protection areas will also increase.

The National Fire Plan provides partial funding for the state operations forester, fire staff officer, strategic planner, safety officer, air attack coordinator, public information officer, communications technician, and the interagency incident management team. These positions support a strong, year-round program.

National Fire Plan funds enable DOF to retain 10 permanent seasonal initial attack firefighters in Palmer, Fairbanks, Soldotna, Delta, and Tok. These firefighters improve initial attack capabilities of the state, local government, and volunteer fire departments in urban interface areas. Effective initial attack of a fire reduces overall suppression costs and minimizes threats to private and public property from wildland fire.

## Western Wildland Urban Interface Fund

### Take Time to Learn Before You Burn

<https://dnr.alaska.gov/burn>

Take Time to Learn Before You Burn is a USDA Forest Service wildland urban interface grant campaign. This year DOF's Prevention Office focused on building awareness of the burn permit program and regulations and the new mascot, Spruce Moose, through community events and on social media platforms. Radio advertisements and social media promoted messages about how to reduce human caused fires in the wildland urban interface. The Prevention Office launched the new "Safe Burning" website in April. It promotes the mission of the grant and helps the public access the tools and information needed to comply with DOF's regulations and restrictions during fire season and to practice safe burning year-round.

Extensive statewide radio campaigns shared information about safe burning practices, burn permit enforcement during fire season, and news on burn closures and public safety. There were 2,436 radio spots statewide including 20 "Firewise Friday" interviews on station 95.5 KNLT in the Mat-Su Valley and five interviews in Fairbanks.



Mat-Su Prevention Officer Kevin Lankford during a Firewise Friday radio interview. (DOF)





Spruce Moose with training recruitment poster. (DOF)

Spruce Moose and Take Time To Learn Before You Burn messages were featured in six social media campaigns throughout fire season and the fall. These included a public service announcement video on safe fire rings, tips on burning safely and legally during fire season, winter Firewise tips, brush disposal site information during burn closures, and holiday greetings.

DOF Area Prevention Offices, participated in 54 community and education events statewide. Audiences ranged from school kids to young professionals to seniors with messages on burn permits, Firewise Alaska information, and the new Spruce Moose mascot.

### **Community Wildfire Defense Grants**

The Community Wildfire Defense Grants (CWDG) are available from the USDA Forest Service through the Division of Forestry & Fire Protection. The grants help at-risk communities, local governments, tribes, non-profits, state forestry agencies, and Alaska Native corporations plan and reduce the risk of wildfire. Local and tribal governments are encouraged to conduct planning exercises to assist their communities with wildfire preparedness, response, and adaptation. The grants are funded through the Bipartisan Infrastructure Law.

The CWDG helps communities implement the three goals of the National Cohesive Wildland Fire Management Strategy: restore and maintain landscapes, create fire adapted communities, and improve wildfire response.

The CWDG provides funding for two primary project types:

- Developing and revising Community Wildfire Protection Plans (CWPPs).
- Implementing projects described in Community Wildfire Protection Plans that are less than ten years old.

Grants will fund up to \$250,000 for creating and updating Community Wildfire Protection Plans or to conduct outreach and education, and up to \$10 million for associated infrastructure and resilience projects. Projects must be completed within five years of the award.

In the first few months of this program, DOF created a webpage with links to the grant posting, eligibility, frequently asked questions, documentation resources, and recorded webinars.

Alaska fully manages the program, including administering sub-grants to communities and non-profits. The benefits of this are that the state can:

- Provide education and outreach to promote CWDGs
- Assist communities in determining eligibility
- Assist communities and partners in preparing applications
- Participate in updating the list of communities that are “at risk”
- Cover costs associated with reviewing, ranking, scoring, and prioritizing applications as part of a regional or national review process
- Offer guidance to communities on CWPP development
- Attend meetings and/or trainings that benefit the program

The CWPP collaborative process improves coordination and communication between emergency response agencies and the community. Developing a CWPP helps clarify and refine priorities to protect life, property, infrastructure, and valued resources. This process can lead communities through critical discussions about private and public land management and identifying opportunities for fuels reduction within a designated wildland/urban interface boundary. Information and links for Alaskan communities that want to create or update their Community Wildfire Protection Plan: <https://forestry.alaska.gov/fire/cwpp/index>

## 2022 Volunteer Fire Assistance Grants to Rural Fire Departments

The Division of Forestry & Fire Protection provided \$186,091.32 in Volunteer Fire Assistance (VFA) grants in 2022. The program provides federal financial, technical, and other assistance from the USDA Forest Service to state foresters to organize, train, and equip rural fire departments to suppress fires. Rural fire departments are the first line of defense in meeting expanded protection needs for wildland urban interface fires. All volunteer fire departments in Alaska were given the opportunity to apply and 40 grants were awarded.

Fire Department	Requested	Awarded
Rural Deltana Volunteer Fire Dept., Delta Junction	\$5,000.00	\$5,000.00
Delta Junction VFD	\$4,454.59	\$4,454.59
Steese Area VFD, Fairbanks	\$5,000.00	\$5,000.00
North Pole Fire Department	\$5,000.00	\$5,000.00
Salcha Fire & Rescue	\$4,297.50	\$4,297.50
Tri-Valley VFD, Healy	\$4,976.00	\$4,976.00
Chena-Goldstream Fire & Rescue, Fairbanks	\$5,000.00	\$5,000.00
North Star VFD, North Pole	\$4,431.60	\$4,431.60
City of Anderson	\$5,000.00	\$5,000.00
McKinley VFD, Denali Park	\$4,599.00	\$4,599.00
Kachemak Emergency Services, Homer	\$4,981.50	\$4,981.50
Womens Bay VFD, Kodiak	\$4,170.95	\$4,170.95
Cooper Landing VFD	\$4,968.00	\$4,968.00
Western Emergency Services Area, Anchor Point	\$5,000.00	\$5,000.00
Central Emergency Services, Soldotna	\$4,209.57	\$4,209.57
Kenai FD	\$4,864.50	\$4,864.50
Nikiski FD	\$4,406.40	\$4,406.40
Homer VFD	\$4,717.80	\$4,717.80
Lowell Point VFD, Seward	\$5,000.00	\$5 000.00
Bear Creek Fire/EMS Department, Seward	\$4,370.76	\$4,370.76
Seward FD	\$4,765.80	\$4,765.80
Chickaloon Fire Service Inc.	\$4,995.00	\$4,995.00
Willow VFD	\$4,999.99	\$4,999.99
Caswell Lakes FSA #135, Wasilla	\$4,999.99	\$4 999.99
Houston FD	\$4,815.00	\$4,815.00
Palmer Fire and Rescue	\$5,000.00	\$5,000.00
Mat-Su Borough West Lakes FSA, Wasilla	\$3,910.77	\$3,910.77
Girdwood Vol. Fire & Rescue, Inc.	\$4,755.98	\$4,755.98
Talkeetna VFD	\$5,000.00	\$5,000.00
Thorne Bay VFD	\$4,547.25	\$4,547.25
Sitka FD	\$3,384.00	\$3,384.00
Gustavus VFD	\$4,778.44	\$3,946.14
Ketchikan International Airport FD	\$5,000.00	\$5,000.00
Yakutat VFD	\$4,905.65	\$4,905.65
Tok VFD	\$4,066.64	\$2,496.59
Kennicott/McCarthy VFD, McCarthy	\$4,973.00	\$4,973.00
Valdez FD	\$4,499.99	\$4,499.99
Gakona VFD	\$4,905.00	\$4,905.00
Glenn Rich Fire Rescue, Glennallen	\$5,000.00	\$5,000.00
Kenny Lake VFD, Copper Center	\$4,743.00	\$4,743.00
<b>TOTAL</b>	<b>\$188,493.67</b>	<b>\$186,091.32</b>

## Fuels Reduction Program

The Division of Forestry & Fire Protection protects Alaska's people, communities, resources, and other values at risk from wildland fire through fuel reduction. Removing woody material around areas of risk creates fire suppression options for fire managers. Fire breaks have proven very effective during recent high-profile fires, especially during the 2019 fire season.

In 2022, DOF increased its capacity to mitigate fuels by adding two regional fuels specialists. The new positions assist in planning, coordinating, and implementing projects. The passage of House Bill 209, which allows the use of emergency firefighters outside of emergencies, provided staff for hazardous fuels crews. This puts Alaskans who are ideal for mitigating hazardous fuels to work. DOF also purchased four industrial chippers to dispose of hazardous fuels after removal.

There is growing interest in fuels mitigation from all agencies and stakeholders with a vested interest in protection from wildland fires. In 2022, agencies focused on coordination to leverage funds, capacity, and programmatic strengths. In 2023, new project manager and site supervisor positions will add depth to DOF Area fuels reduction work and bolster the division's suppression forces. Nine projects are also planned to protect the communities of Fairbanks, Tok, Delta, Glennallen, Soldotna, and Anchorage.

DOF supported 22 projects and completed seven in 2022. Work included shaded and mechanical fuel breaks, burning debris, agreements with local governments to protect critical infrastructure, and Firewise assessments. This provided additional opportunities for the division's seasonal workforce and for contracting private sector services. The division created drop-off sites for hazardous fuels in the City of Kenai, the Mat-Su and Denali boroughs, Tok, and Delta. Providing the public with disposal

options limits the need to burn piles of debris, reducing the chance of an escaped burn.

The Old Murphy Dome fuel break and the Chena River Recreation Site shaded fuel break were re-treated in 2022. On the 600-acre Old Murphy Dome fuel break, vegetation was treated that had returned since the original project was completed. This fuel break has offered strategic and tactical options on multiple wildland fires. Agencies cooperated to treat 24 acres on the Chena River Recreation Site to reduce hazardous fuels and improve public access.

### 2022-2023 Projects

#### Coastal Region

**Morgan's Landing State Park Recreation Site:** DOF personnel removed dead trees in this highly visited recreation area, mitigating spruce beetle, and creating a shaded fuel break to protect the public from wildland fire. It was funded through federal and state sources.

**Russian River Campground:** Multiple agencies continued to remove hazardous trees near the Russian River Campground, with funds provided through the Good Neighbor Authority with the USDA Forest Service.

**City of Kenai:** Two government-to-government agreements were used to dispose of hazardous fuels and to install a shaded fuel break within the wildland urban interface. The projects were funded by state appropriated funds.

**Kenai Peninsula College:** Hazardous fuels surrounding the college and adjoining recreational areas were removed, using federal and state funds.



One of four new industrial chippers DOF purchased to dispose of fuels reduction debris. (Ethan DeBauche)



**City of Soldotna:** An agreement between DOF and the City of Soldotna was enacted to remove hazardous fuels and protect critical infrastructure. The work was funded through state funds.

**Hidden Hills Road:** Staff used federal funds to complete phase one and begin phase two of a shaded fuel break along the Hidden Hills Road to protect ingress/egress for the community of Caswell.

**Lynx Lake:** DOF personnel made significant progress creating a shaded fuel break along the access route to the Lynx Lake community using federal funds.

**Houston:** Area staff began laying out the Sunset Fuel Break to help protect the community of Houston and awarded a contract for the fuel break work. This phased project is funded through federal and state sources.

**Takotna, Nikolai, Telida, and McGrath:** The second phase of work continued to routes to and from disposal sites in these Southwest communities. This phase is funded by the state.

**Mat-Su Borough:** A government-to-government agreement assists the borough in offering hazardous fuels disposal options to the community. It is funded by federal and state sources.

**Municipality of Anchorage:** DOF has an agreement with the municipality to offer Firewise assistance to homeowners, to provide community debris disposal sites, and to maintain fuel breaks within Anchorage.

### **Northern Region**

**Old Murphy Dome Fuel Break:** This project was designed to maintain the 300-foot-wide fuel break in an area with numerous landowners, utility rights-of-way, and recreational trails. The 603-acre fuel break provides a significant wildfire barrier to Fairbanks. Work was completed in 2022 and funded by the state.

**Anderson Fire Resilient Landscape:** In this project 80 acres were thinned to create a shaded fuel break and defensible space adjacent to fire prone areas. It provided a strategic option for firefighters during the 2022 fire season. It was completed with federal funding.

**Washington Creek:** This 300-acre fuel break will help protect the Himalaya Subdivision, outside of Fairbanks. This state-funded project will be completed in phases. DOF will solicit a contractor for the work to begin in 2023.

**Legacy Debris Piles:** Debris piles were disposed of in the Cripple Creek and Goldstream Alaska subdivisions, which helps the shaded fuel breaks protect the subdivisions. Over 2,000 piles were burned during the winter of 2022, using state funds.

**Chena Recreation Area:** This project was completed in the summer of 2022 to mitigate fuels in a high traffic recreation area within Fairbanks. It was a multi-agency effort, funded by the state.

**Denali Borough Disposal:** A government to government agreement provides two sites for landowners to dispose of hazardous fuels and protect property from wildland fire. This agreement is federally funded.

**Delta River West:** A contract has been awarded for Phase One of this project, located on the west side of the Delta River. The contractor will create a 13-mile, 750-acre fuel break from the Donnelley Training Area to the community of Whitestone. Work will begin when the weather allows. This project is federally funded.

**Tok and Delta Community Disposal:** Sites in Tok and Delta provide the communities with a safe option for disposing of hazardous fuels taken from private property. The sites are federally funded.

**Eagle Subdivision Fuel Break:** Two fuel breaks will protect the community of Tok by treating a total of 187 acres, using federal funds.

**Copper River Area:** Staff are updating and adding new Community Wildfire Protection Plans (CWPP) and maintaining the Glennallen fuel break. The fuel break is state funded and will continue to add strategic fire suppression options for area.

## Fire Training Program

The Alaska Division of Forestry & Fire Protection provides a training program that meets or exceeds the national standards and adheres to the standards of the National Wildland Fire Coordinating group. DOF strives to maintain a qualified and safe workforce ready to respond to wildland fires and other emergencies. Interagency courses are open to federal co-operators, structure fire departments, local governments, other state agencies, emergency firefighters in all geographic areas, and to Canadian fire agencies.

### National Training

The division sent 27 people to courses in the Lower 48. The courses included: dispatch, leadership, advanced falling, prevention, logistics, aerial operations, and near miss/fatality response training.

### Interagency Training

In 2022, DOF sponsored Interagency spring training, followed national guidelines, and focused on courses necessary for task book and position development including flex plan requirements. There were some virtual classes, but with improved safety measures and a decline in the COVID pandemic most courses were offered in person once again.

### Division Courses and Number of Students

**Aviation (225):** Basic Air Operations, Helicopter Crewman, Helibase Manager, Aviation Transport of Hazardous Materials, Helicopter Manager, Aviation Radio Use, Mishap Review, Interagency Aviation

Organizations, Basic Airspace, Mission Scheduling & Coordination, Aviation Policy & Regulations I, Mission Planning & Flight Requests, Crash Survival for R-10 (Alaska) and Automated Flight Following.

**Dispatch (17):** Dispatch Recorder, Initial Attack Dispatcher, Aircraft Dispatcher, and IROC training.

**Driving (68):** ATV/UTV training, CEVO3, Defensive Driving, Engine Operator, Alaska Engine Academy.

**Finance (9):** Interagency Incident Business Management and Applied Interagency Incident Business Management.

**Leadership (112):** Human Factors in the Wildland Fire Service, Followership to Leadership, Fireline Leadership and Fire Program Management - an Overview.

**National Incident Management (279):** National Incident Management System - an Introduction, National Response Framework - an Introduction, Introduction to the Incident Command System, ICS for Single Resources and Initial Action Incidents, Intermediate ICS for Expanding Incidents and Advanced ICS for Command and General Staff.

**Operations (435):** Basic Wildland Fire Orientation, Firefighter Training, Introduction to Wildland Fire Behavior, Firefighter Type 1 Training, Initial Attack Incident Commander, Introduction to Incident Information, Portable Pumps and Water Use, Wildland Fire Chainsaws, Fire Operations in the Wildland Urban Interface, Firing Operations, Crew Boss, Engine Boss, Intermediate Wildland Fire

Alaska Division of Forestry & Fire Protection Interagency Courses - 2022				
Date	Course	Location	Instructors	Students
<i>In-person Courses</i>				
May 9-12	S-244 - Field Observer	Fairbanks	5	15
May 2-7	L-380	Fairbanks	3	23
April 18-20	S-215 - Wildland Urban Interface	Wasilla	2	7
April 20-22	L-280 - Followership to Leadership	Wasilla	2	12
April 26-27	IQS	Anchorage	1	10
April 25-29	IC Sims	Palmer	12	26
May 23-27	FPO - Fire Prevention Officer	Palmer	3	11
April 11-15	CAN-290	Palmer	4	25
September 31	A-307 - Aviation Policy	Palmer	1	11
April 5-7	S-330 - Taskforce Leader	Fairbanks	4	24
<i>Virtual Courses</i>				
April 11-13	ICS-300		2	24
April 14-1	ICS-400		2	20

Behavior, Taskforce/Strike Team Leader, Division/Group Supervisor and Canadian Forest Fire Danger Rating System.

**Prevention (78):** Wildland Fire Observations & Origin Scene Protection for First Responders, Prevention Officer Enforcement Training and Alaska Prevention Workshop.

**Refreshers (808):** Annual Wildland Fire Safety Training, Wildland Fire Chainsaw Refresher, Helicopter Manager Workshop, PLDO recurrency

**Warehouse (26):** HAZMAT 49 and Forklift training

### Safetyhub

The SafetyHub virtual platform provided every DOF employee with convenient online access to safety training mandated by OSHA. DOF employees completed 3,617 safety courses, including OSHA-approved and DOF specific classes. Over 83% of employees completed all their assigned training.

### Short-term Non-permanent Positions

DOF funded 12 short-term non-perm positions for 20 workdays in 2022. Positions were placed in DOF Area Offices, and an Initial Attack Wildland Fire Module was placed in McGrath. The employees participated in 16 courses and initiated 12 position task books.

### 2023 Academies

The academy program received a substantial boost in state funding for the 2023 season and DOF will reinstate the basic and advanced academies and two additional academies. The following academies will be held in late April and May:

Basic Firefighter Academies - Tok and McGrath

Advanced Firefighter Academy - Delta Junction

Alaska Engine Academy – Palmer

Alaska Aerial Supervision – Palmer

### Recruitment and Retention

With reinstatement of the academy program and many new positions, the training staff has boosted recruitment outreach and retention of current employees. Wildland fire agencies nationwide are seeing an increase in resignations and retirements. Recruitment has been difficult across the board with increased competition of available hires. Efforts include outreach and communication via social media, website upgrades, newsletters, emails, and participation in booths at a variety of trade shows, festivals, fairs, and educational events.

### New Staff

With new funding, reorganization, and additional training opportunities DOF is pleased to announce the expansion of the training team. All new positions, described below, except the Wildland Fire & Resource Technician IVs in Area Offices will be overseen by the Statewide Training Coordinator.

**Regional Training Specialists:** As DOF moves into a regional organization, Kelly Gisolo will become the Southern/Coastal Training Specialist and a Northern Training Specialist position will be added.

**Academy Specialist:** With increased funding and additional work for the academy program, a position was added to oversee and coordinate the academy program.

**Training Office Assistant:** An office assistant position was added to assist with the budget and codes, and to manage training related travel.

**Area Training Staff:** Area Offices received five new Wildland Fire & Resource technician IV positions. The positions are a combination of 60% wildland fire initial attack and 40% area training officers, they will work closely with regional training staff to implement and oversee area training programs.



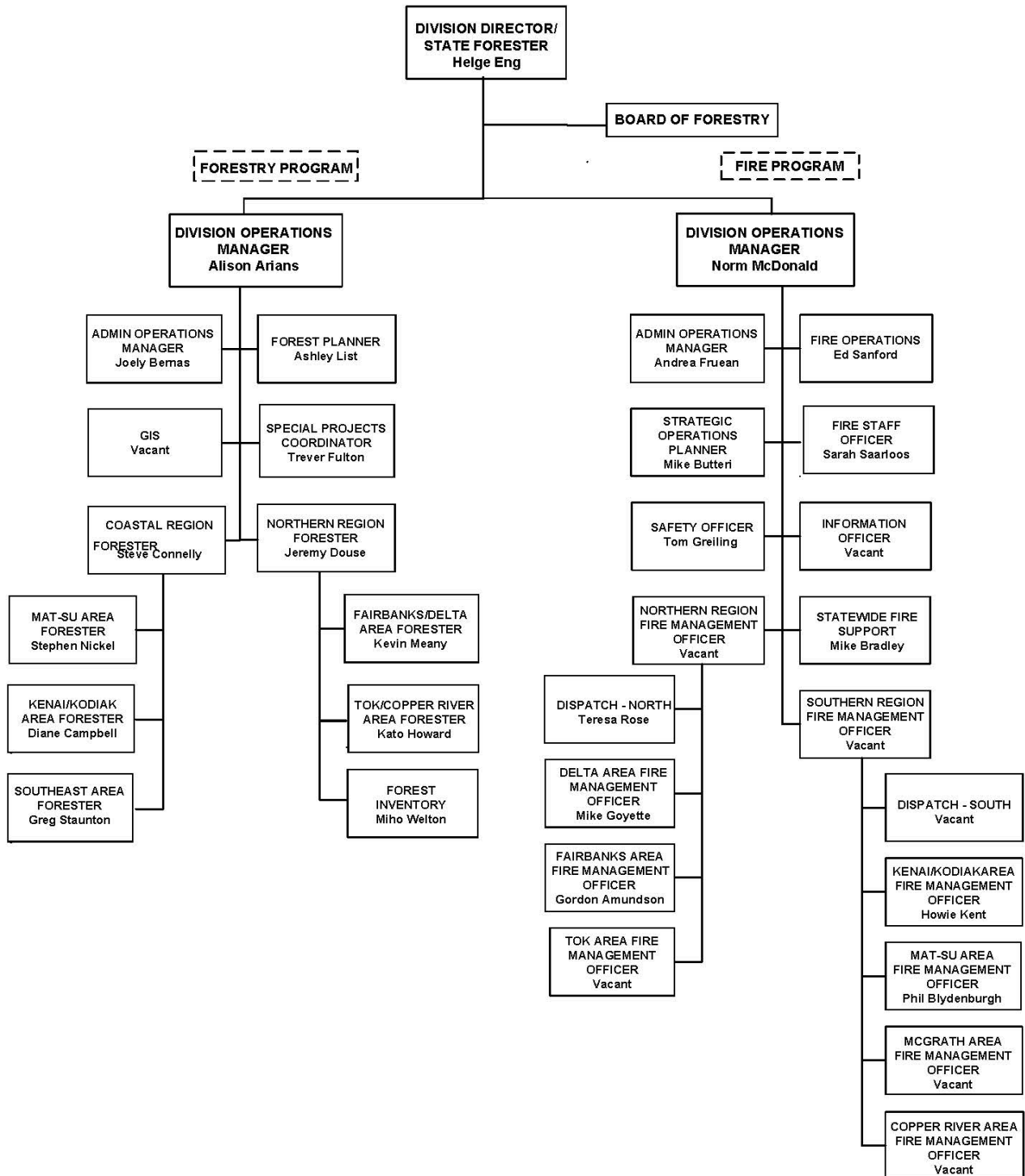
Students and instructors at the Incident Command Simulations course in Palmer on April 29. The course is held bi-annually to provide instruction and simulated wildfire incidents that allow students to learn to be incident commanders in a safe environment. (Carrie Hale)



# Alaska Division of Forestry & Fire Protection

## Organizational Chart

### December 2022



**2022 Actuals**

NOTE: Dollar figures are in thousands (e.g., \$27.5 is \$27,500.00)

<b>Funding Sources</b>	<b>Forest Mgmt &amp; Development</b>	<b>Fire Preparedness</b>	<b>Fire Activity</b>	<b>Totals</b>
General Funds	\$2,862.9	\$17,228.9	\$51,839.3	\$71,931.1
Federal Funds	\$700.2	\$625.5	\$11,723.4	\$13,049.1
Capital Improvement	-	-	-	\$0.0
Interagency Receipts	\$4.9	\$13.3	-	\$18.2
Timber Receipts	\$687.5	-	-	\$687.5
Other (SDPR)	-	-	1,791	\$1,791.1
<b>TOTALS</b>	<b>\$4,255.5</b>	<b>\$17,867.7</b>	<b>\$65,353.8</b>	<b>\$87,477.0</b>

**POSITIONS**

Permanent Full-Time	30	28	-	58
Permanent Part-Time /Seasonal	11	190	-	201
Non Permanent	5	-	-	5

**Forest Management & Development Component**

<b>Renewable Resource Development &amp; Sales</b>	<b>Coastal Region</b>	<b>Northern Region</b>	<b>Statewide</b>	<b>Totals</b>
Board of Forestry	-	-	\$11.5	\$11.5
Forest Practices	\$234.2	\$244.4	\$645.3	\$1,123.9
Forest Management	\$293.5	\$306.1	\$808.6	\$1,408.2
Interagency Receipts	-	-	\$166.8	\$166.8
Stat. Desig. Program Receipts (SDPR)	-	-	-	\$0.0
Federal Cooperative Forestry Assistance	-	-	\$1,239.6	\$1,239.6
Capital Improvement Receipts (Other)	-	-	-	\$0.0
<i>Subtotals</i>	<i>\$527.7</i>	<i>\$550.5</i>	<i>\$2,871.8</i>	<i>\$3,950.0</i>
Director's Office	-	-	\$305.5	\$305.5
<b>Component Totals</b>	<b>\$527.7</b>	<b>\$550.5</b>	<b>\$3,177.3</b>	<b>\$4,255.5</b>

**Fire Suppression Preparedness Component**

	<b>Coastal Region</b>	<b>Northern Region</b>	<b>Statewide</b>	<b>Totals</b>
Preparedness	\$3,163.1	\$1,948.0	\$10,001.4	\$15,112.5
Interagency Receipts	-	-	\$530.1	\$530.1
Federal Cooperative	\$465.6	\$286.7	\$1,472.1	\$2,224.4
Initial Attack	-	-	-	\$0.0
Capital Improvement Receipts (Other)	-	-	\$0.0	\$0.0
		\$0.0	\$0.0	\$0.0
<b>Component Totals</b>	<b>\$3,628.7</b>	<b>\$2,234.7</b>	<b>\$12,003.6</b>	<b>\$17,867.0</b>

## 2023 Budget

NOTE: Dollar figures are in thousands (e.g., \$40.5 is \$40,500.00)

FUNDING SOURCES	FOREST MGMT & DEVELOPMENT	FIRE PREPAREDNESS	FIRE ACTIVITY	TOTALS
General Funds	\$3,349.5	\$22,124.9	\$61,841.0	\$87,315.4
Federal Funds	\$3,673.4	\$1,642.6	\$23,960.4 *	\$29,276.4
Capital Improvement			-	
Receipts (Fed, GF, & SDPR)	\$283.4	\$620.9	-	\$904.3
Interagency Receipts	\$615.7	\$413.2	-	\$1,028.9
Timber Receipts	\$1,078.2	-	-	\$1,078.2
Other (SDPR)	\$29.7	-	\$1,500.0	\$1,529.7
<b>TOTALS</b>	<b>\$9,029.9</b>	<b>\$24,801.6</b>	<b>\$87,301.4</b>	<b>\$121,132.9</b>

### POSITIONS

Permanent Full-Time	38	80	-	118
Permanent Part-Time/Seasonal	10	180	-	190
Non-Permanent	13	-	-	13

### FOREST MANAGEMENT & DEVELOPMENT COMPONENT

RENEWABLE RESOURCE DEVELOPMENT & SALES	COASTAL REGION	NORTHERN REGION	STATEWIDE	TOTALS
Board of Forestry	-	-	\$16.6	\$16.6
Forest Practices	-	-	\$258.0	\$258.0
Forest Management	\$1,234.3	\$633.8	\$1,467.8	\$3,335.9
Forest Inventory and Analysis	-	-	\$1,256.1	\$1,256.1
Tongass Young Growth	-	-	\$1,166.3	\$1,166.3
Interagency Receipts	-	-	\$689.5	\$689.5
Stat. Desig. Program Receipts (SDPR)	-	-	\$29.7	\$29.7
Federal Cooperative Forestry Assistance	-	-	1,426.90	\$1,426.9
Capital Improvement Receipts (Other)	-	-	-	\$283.4
<i>Subtotals</i>	\$1,234.3	\$633.8	\$6,310.9	\$8,462.4
Director's Office	-	-	\$567.5	\$567.5
<b>COMPONENT TOTALS</b>	<b>\$1,234.3</b>	<b>\$633.8</b>	<b>\$6,878.4</b>	<b>\$9,029.9</b>

### FIRE SUPPRESSION PREPAREDNESS COMPONENT

	COASTAL REGION	NORTHERN REGION	STATEWIDE	TOTALS
Preparedness	\$5,599.2	\$3,863.0	\$12,240.0	\$21,702.2
Interagency Receipts	-	-	\$512.6	\$512.6
Federal Cooperative Forestry Assistance	-	-	\$1,965.9	\$1,965.9
Capital Improvement Receipts (Other)	-	-	\$620.9	\$620.9
<b>COMPONENT TOTALS</b>	<b>\$5,599.2</b>	<b>\$3,863.0</b>	<b>\$15,339.4</b>	<b>\$24,801.6</b>



## Division of Forestry & Fire Protection Directory – December 2022

For current contact information see state employee directory: <http://alaska.gov/whitepages>

### State Forester's Office

550 West Seventh Ave., Suite 1450  
Anchorage, Alaska 99501-3566  
269-8463, fax 269-8931

#### **State Forester**

Helge Eng, 269-8474

### Forestry Program Management

550 West Seventh Ave., Suite 1450  
Anchorage, Alaska 99501-3566

#### **Division Operations Manager**

Alison Arians, 269-8467

#### **Admin. Operations Manager**

Joely Bernas, 269-8477

#### **Forest Planning**

Ashley List, 269-8481

#### **Community Forestry Program**

Jim Renkert, 269-8465

#### **Forest Health & Protection**

(Insects & Disease)

Jason Moan, 269-8460

#### **Forest Stewardship Program**

(Landowner Assistance)

Trevor Dobell-Carlsson

269-8667

#### **Special Projects Coordinator**

Trever Fulton, 269-5023

### Fire Program Management

101 Airport Road

Palmer, Alaska 99645

#### **Division Operations Manager**

Norm McDonald, 761-6225

#### **Admin. Operations Manager**

Andrea Fruean, 761-6204

#### **Strategic Operations Planner**

Mike Butteri, 356-5858

#### **Statewide Fire Support**

Mike Bradley, 451-2608

NFDC Fairbanks, 451-2680

State Fire Warehouse, 451-2667

#### **Fire Operations**

Edward Sanford, 356-5850

AICC Logistics, 356-5680

#### **AICC Coordinator**

Katie Kelley, 356-5682

### **Aviation Program**

761-6270, fax: 761-6273

Robert Hoecher, Aviation Manager

761-6271

Coastal Aviation Mgmt., 761-6231

Air Attack, 761-6280

### Coastal Region

#### **Regional Forester - Coastal**

Steve Connelly, 269-0409

#### **Regional Fire Management Officer - Southern**

Vacant

#### **Mat-Su/Southwest Area Office**

101 Airport Road

Palmer, Alaska 99645

761-6300, fax: 761-6319

Stephen Nickel, Area Forester

761-6301

Phillip Blydenburgh, Area Fire

Mgmt. Officer, 761-6302

Dispatch, 761-6240

Fire line, 761-6311

Burn Permit, 761-6312

#### **Southwest Area Office (Seasonal)**

Box 130

McGrath, Alaska 99627

524-3010, fax 524-3420

Fire line, 524-3366

Dispatch fax: 524-3932

#### **Kenai-Kodiak Area Office**

42499 Sterling Highway

Soldotna, Alaska 99669

(Mi. 92.5 Sterling Hwy)

260-4200, fax: 260-4205

Diane Campbell, Area Forester

260-4210

Howie Kent, Area Fire Mgmt. Officer

260-4220

Fire line, 260-4100

Burn Permit, 260-4269

Dispatch, 260-4232

### **Southeast Area Office**

2417 Tongass Avenue, Suite 213

Ketchikan, Alaska 99901

225-3070, fax: 247-3070

Greg Staunton, Area Forester

225-3070

Fire line, 524-3366

### Northern Region

#### **Regional Forester – Northern**

Jeremy Douse, 451-2670

#### **Regional Fire Management Officer - Northern**

Vacant

#### **Fairbanks Area Office**

3700 Airport Way

Fairbanks, Alaska 99709-4699

451-2600, fax 458-6895

Kevin Meany, Area Forester

451-2602

Gordon Amundson, Fire Mgmt. Officer,

451-2636

Fire line, 451-2626

Fire Operations, fax: 451-2633

NFDC 451-2680

#### **Delta Area Office**

P.O. Box 1149

Delta Junction, Alaska 99737

(Mi. 267.5 Richardson Hwy)

895-4225, fax: 895-2125

Kevin Meany, Area Forester

451-2602

Mike Goyette, Fire Mgmt. Officer

895-2103 Fire line, 895-4227

#### **Tok Area Office**

Box 10 Tok, Alaska 99780

(Mile 123.9 Tok Cutoff)

883-1400, fax: 883-5135

Timothy "Kato" Howard, Area Forester,

883-1403

Vacant, Fire Mgmt. Officer,

883-1404

Fire line, 883-3473

#### **Valdez/Copper River Area Office**

P.O. Box 185

Glennallen, Alaska 99588

822-553, fax: 822-8600

Mike Trimmer, Fire Mgmt. Officer

822-5534



A photograph of a forest path. The path is a narrow, dirt trail that winds through a dense forest. Sunlight filters through the canopy of tall trees, creating dappled light on the path and the surrounding undergrowth. The trees have green leaves, and the ground is covered with grass and small plants. The overall scene is peaceful and natural.

**Alaska Department of Natural Resources  
Division of Forestry & Fire Protection  
550 W. Seventh Avenue, Suite 1450  
Anchorage, Alaska 99501  
State Forester Helge Eng, 907-269-8463**