

Alaska Department of Natural Resources

Division of Forestry

Annual Report 2018



Alaska Department of
**NATURAL
RESOURCES**

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For online copy, visit
<http://forestry.alaska.gov/overview>

Forestry had an enthusiastic delegation for the DNR Heart Run



Alaska Department of Natural Resources Division of Forestry

Manages a wildland fire 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 woods;

Protects water quality, fish and wildlife habitat, and other forest values through appropriate forest practices and administration of the Forest Resources and Practices Act;

Manages the Southeast, Haines, and Tanana Valley state forests, which cover a total of 2.1 million acres;

Administers the federally-funded Community Forestry, Forest Health Protection; and Forest Stewardship programs;

Gives technical assistance to owners and managers of forested land.

The mission of the Division of Forestry is to proudly serve Alaskans through forest management and wildland fire protection.

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 2018, the division had 58 full-time, 173 part-time/seasonal, and five non-permanent positions.



State Forester Comments

If you asked me how the year went for the division and our employees, I'd have a hard time keeping my response brief and capturing the full dimension of the activities, services and initiatives that have been accomplished. The work we do ranges from routine to dynamic, it includes wildland fire management at the local and national level, to supporting communities as they seek ways to become more self-reliant through the utilization of forest resources. Each of us has an important role in providing a responsive, customer focused approach to delivering and accomplishing our mission of proudly serving Alaskans through wildland fire and forest management.

Successfully accomplishing this mission requires an engaged leadership team and a workforce with the experience and resources to deliver consistent results while rising to new challenges as they emerge. As you read the annual report, you will find numerous specific examples of the work the division has engaged in this past year and I'd like to highlight a few of those efforts, not because they are more important than the full body of work, but to communicate to others the range and depth of the work we do.

In southeast Alaska, staff are working to address challenges with providing an adequate supply of timber sales from state and federal lands to ensure the forest products industry can continue to contribute to the local and regional economy. This is a multi-faceted approach that includes working with many partners, but particularly the U.S. Forest Service, where the state is conducting forest management work under the Good Neighbor Authority on federal lands using state staff and processes. This year, two additional project agreements were initiated, one near Ketchikan on Gravina Island where a joint timber sale and forest restoration work is planned, while the second project is for thinning spruce to improve forest health in the Chugach National Forest. On the Tongass, work is nearing completion on the young growth forest inventory where state and federal staff have been working together over the past three years to collect and process stand and tree data. This information will help inform managers on the status of the transition from old growth to young growth timber management. A key part of this effort has been workforce development for residents and employees. This aspect of the program has been successful in training and placing local people into positions with public agencies and private companies and building skills and capacity in the region's workforce.

The fire program had a third year of below average fire activity and a second year with no large project fires in the state. This is notable because this is the first two-year period without a project fire. Despite this first, the season still had 362 fires statewide with the ten-year average of 518 fires per year. As the Alaska season slowed, the division switched to support of Lower-48 fires and our state agency crews and six jetloads of Emergency Fire Fighter crews aided many western states that faced a difficult fire season. These crews and our Alaskan Incident Management Team get high marks for their skills and efforts while on these assignments.

The division is also facing a rapid loss of talent and leadership as the workforce changes. The reasons are varied but contributing factors include better opportunities, retirement, life style choices, family needs, and fiscal uncertainty. Succession planning and employee development are key responsibilities for our leadership team. Recruiting and retention of new staff is ongoing as we search for ways to attract and retain the talent the division needs to meet our goals and mission. Without the dedication and effort put forward by our employees, it would be impossible to accomplish so much, so thank you for what you all do, each and every day!

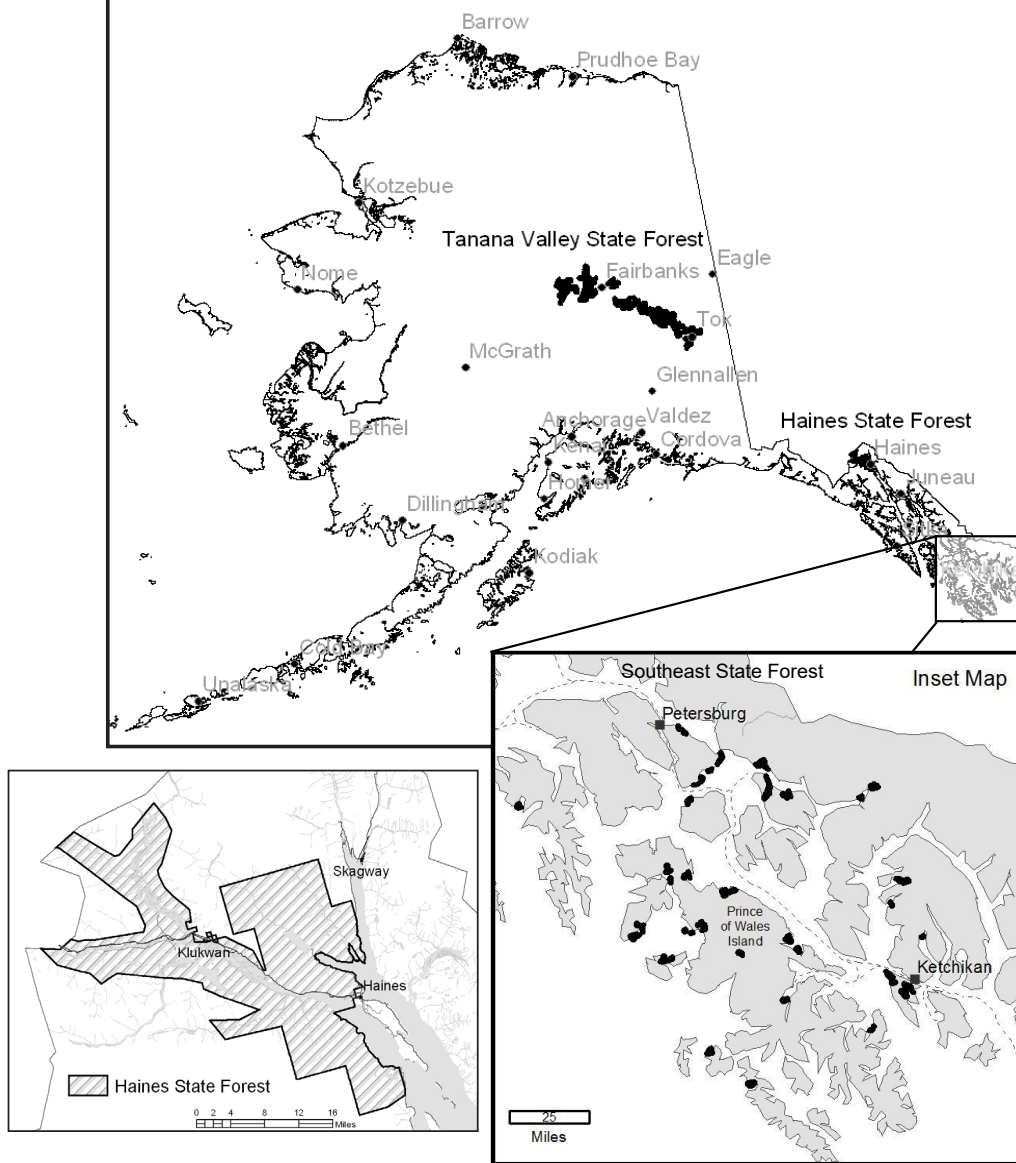


John "Chris" Maisch - State Forester

Handwritten signature of John C. Maisch in blue ink.

-John "Chris" Maisch
State Forester

Alaska State Forests



ALASKA STATE FORESTERS

Earl Plaurde
October 1959 to June 1968

William Sacheck
July 1968 to June 1974

George Hollett
July 1974 to June 1976

Theodore Smith
July 1976 to April 1982

John Sturgeon
May 1982 to June 1986

George Hollett (acting)
July 1986 to February 1987

John Galea
March 1987 to May 1988

Tom Hawkins (acting)
June 1988 to December 1988

Malcolm "Bob" Dick
January 1989 to November 1992

Dean Brown (acting)
December 1992 to February 1993

Tomas Boutin
March 1993 to January 1997

Dean Brown (acting)
January 1997 to July 1997

Jeff Jahnke
July 1997 to July 2005

Dean Brown (acting)
July 2005 to October 2005

John "Chris" Maisch
October 2005 to present

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

Haines State Forest

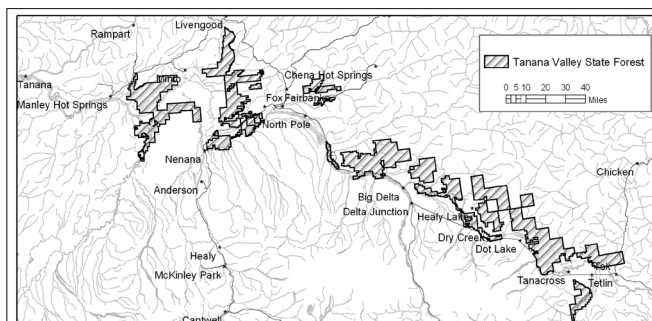
Established in 1982
286,208 acres

Tanana Valley State Forest

Established in 1983
1.78 million acres

Southeast State Forest

Established in 2010
48,472 acres



Resource Management & Development

Forest Practices Implementation on Private, Municipal, & Trust Land

In 2018, DOF received and reviewed 29 new harvest detailed plans of operation (DPO), six new reforestation/timber stand improvement DPOs, one new road closure/maintenance DPO, one voluntary DPO, and 25 renewals for private, municipal, and state trust lands. New DPOs covered 6,477 acres and 108.5 miles of new forest road. The division conducted 18 inspections (including variation inspections) on private, municipal and trust land and 58 inspections on state timber sales.

The number of DPOs reviewed, acreage notified, and inspections on non-state land operations increased slightly from 2017 to 2018. Most of the Forest Resources Practices Act (FRPA) activity on private land occurred in the Southeast Area on Sealaska operations associated with their recently-acquired land selections, University of Alaska timber sale activity in Edna Bay and the beginning of a new operation on Mental Health Trust land at Icy Bay. The number of Southeast inspections on state land during 2018 was less than half of 2017 but still active, with operations winding down at Coffman Cove and commencing at North Hollis. Significant new road construction activity on Gravina Island began in 2017 and contributed to the large number of inspections that year. Notifications and acreage notified also increased in the Kodiak-Afognak area, as did inspections. There was little FRPA activity on non-state land in Regions II and III, with a total of three DPOs in the two regions. Inspections in Region IV on both private land and state land increased slightly from 2017 to 2018.

Note: FRPA data is reported on a calendar year basis because 11AAC95.220 requires Region I DPOs to be submitted by calendar year. Data on state forest management (e.g., state timber sale volumes) are reported by fiscal year to be consistent with state budget documents.

Variations

The Southeast Area received one request for variation for harvesting in riparian buffers and approved two of the two trees requested.

Enforcement

No violations were issued in 2018. DOF issued one directive to a landowner for the removal of a log stringer bridge that collapsed while a contractor was mobilizing equipment and supplies across the bridge, which spanned a stream that is tributary to a Class B water system. Upon removal of the old structure the contractor continued working adjacent to the stream to install a rail car bridge without a notified operating plan; the DOF issued a stop work order requesting a detailed plan of operation for the new installation. The land owner complied.

Effectiveness monitoring and road condition surveys

DOF works with agencies and affected interests to prioritize effectiveness monitoring and research needs, and to seek funding for high priority projects. Funding for effectiveness research is exceedingly difficult to find and recent operating budget cuts have made it impossible for DOF to come up with the matching funds that are commonly required. No new effectiveness monitoring projects were undertaken in 2018.

Road condition surveys and remediation

In 2017, DOF, with the assistance of ADF&G, performed a road condition survey on 2.5 miles of forest road in the Southeast State Forest on Wrangell Island. This is a former U.S. Forest Service road with non-compliance issues under FRPA. As a result of the survey, DOF contracted for the road to be closed in 2018, with crossing structures removed and natural drainage re-established. Upon completion, the 2.5 miles were resurveyed and found to be free of impediments to fish passage for the long-term.

A stream-simulation culvert was installed to replace a smaller constricting culvert in Tyonek. The original structure was identified as having multiple impediments to fish passage during a 2012 road condition survey. With assistance from the Sustainable Salmon Fund (SSF), U.S. Fish and Wildlife Service, and the Tyonek Tribal Conservation District, design work occurred in 2017 and replacement in 2018. This installation improved seven miles of fish habitat. As part of the same project under the SSF, two miles of forest road were closed in 2017, with culverts removed and natural stream courses reestablished. This restored four miles of salmon habitat.

Reforestation exemptions

Operators of harvests that are composed of significant numbers of dead or dying trees may request an exemption from the FRPA reforestation requirements. DOF received no new requests for a reforestation exemption in 2018.

FRPA 101

The division has developed a series of Forest Resources Practices Act training modules using PowerPoint. The full series of 20 modules covers purpose, applicability, detailed plans of operation, 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 training modules are available on the Division of Forestry website under FRPA training materials, at

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

Detailed Plans of Operation for New Commercial Timber Harvests

	New Notifications (DPOs)				Harvest Acreage in New Notifications				New Notifications of Road Construction			
	CY 15	CY 16	CY 17	CY 18	CY 15	CY 16	CY 17	CY 18	CY 15	CY 16	CY 17	CY 18
SSE	16	19	19	14	1820	3341	3758	2479	18.15	28.1	19.94	22.09
NSE	0	0	1	10	0	0	0	863	0	0	1	36.32
MS-SW	1	0	0	1	160	0	0	1646	0.3	0	0	8.6
KK	6	7	2	3	2831	2387	691	1460	24.55	14.7	6	38.75
Coastal	23	26	22	28	4811	5728	4449	6448	43	42.8	26.94	105.76
Fairbanks	5	2	2	1	299	127	79	29	2.35	2.1	2.3	2.75
Delta	0	0	0	0	0	0	0	0	0	0	0	0
Tok	0	0	0	0	0	0	0	0	0	0	0	0
Copper	0	0	0	0	0	0	0	0	0	0	0	0
Northern	5	2	2	1	299	127	79	29	2.35	2.1	2.3	2.75
Statewide	28	28	24	29	5110	5855	4528	6477	45.35	44.9	29.24	108.51

Forest Managment

Changes to Timber Management Regulations

Negotiated timber sales to local manufacturers

Updates to the negotiated sale regulations went into effect in June 2018. The regulation changes:

- Extend the maximum time period for negotiated timber sales under AS 38.05.115 from one year to two years.
- Clarify that a best interest finding is needed for a negotiated sale under AS 38.05.118.
- Delete the requirements for .118 sales to be in areas of high unemployment, underutilized manufacturing capacity, and underutilized allowable cut. This is consistent with the changes to AS 38.05.118 made two years ago.
- Clarify that a negotiated sale under .118 can be made to local manufacturers of wood products or users of wood fiber at appraised value.
- Specify that a negotiated sale under .118 is at appraised value.

DNR Fee regulations

DNR fee regulation revisions went into effect in July 2018. The revisions move the fees for each division's set activities into its own section with new section numbers. The regulations:

- Do not change the forestry fees, which only cover beach log salvage and log brands. These fees are now in 11 AAC 05.080.
- Do not change the standards for waiving fees for state, municipal, and federal agencies, i.e., the requesting agency must still show that a waiver is in the public interest.
- Do increase many fees, including fees for material sales and commercial harvest of non-timber forest products. These products are managed by the DNR Division of Mining, Land, and Water (DMLW).
- Do add a \$250 fee for filing an administrative appeal or request for reconsideration. This would include appeals of best interest findings and Forest Land Use Plans for state timber sales.

For the DMLW services, the regulations set a maximum fee; that fee may be reduced by director's order. DMLW is using this provision to reduce the initial fee level under the regulations by up to 20 percent for many of the services they manage, including mining and material operations, non-timber forest products, easements and rights-of-way, and surveys and platting.

Board of Forestry Members

Chris Maisch, Chair, State Forester, Fairbanks

Chris Beck, Recreation Organization, Anchorage

Denise Herzog, Mining Organization, Fairbanks

Jaeleen Kookesh, Native Corporation, Juneau

Bill Morris, Non-governmental Fish or Wildlife Biologist, Fairbanks

Eric Nichols, Forest Industry Trade Association, Ketchikan

Will Putman, Non-governmental Professional Forester, Fairbanks

Chris Stark, Environmental Organization, Fairbanks

Mark Vinsel, Commercial Fishery Organization, Juneau

Western red cedar on the Hollis Timber Sale on Prince of Wales Island.



Forest Inventory

Forest Inventory and Analysis

State field crews successfully completed the three-year “ramp-up” phase of the Interior Forest Inventory and Analysis Program. This work is under a joint venture agreement with the U.S. Forest Service (USFS). In future years, the state will operate more autonomously with less involvement by the USFS, which will continue to provide funding, quality assurance, and logistical and IT support. In 2018 staff finished sampling in the Tanana Valley unit with the completion of 290 plots.

This was the final year of a three-year helicopter contract with no major incidents and very few times that the helicopter was not available. The crews again met the quality assurance standards for the project.

2018 staffing included six non-permanent crew leads, 14 non-permanent crew members, and two permanent coordinators. In the next field season crews will begin installing plots in the Susitna/Copper River unit.

Forest Inventory and Analysis

A second inventory project in the Tongass National Forest is funded by a contract from the U.S. Forest Service State & Private Forestry to DOF through a Challenge Cost Share Agreement. State crews completed the field work for this three-year project in 2018 and successfully inventoried 30,000 acres of second growth timber in the national forest.

DOF created a comprehensive dataset that includes over 12,000 plots encompassing 341 sampled stands in young growth stands older than 55 years. Sample stands ranged in location from Prince of Wales and Revilla islands north to Tenakee Springs. Data collected includes variables that will allow projections of forest growth. Inventoried stands will also be examined for access, applicable logging systems, and management restrictions. The final reduction in volume will be determined. An interactive mapping portal of the young growth inventory was created to display project results.

The final information will aid the U.S. Forest Service in its transition from an old-growth dependent timber sale program to a program based on young growth that maintains a viable forest products industry.

Forest Management Planning

The Division of Forestry 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.

Timber Sales Sold on State Land

Note: some sales are offered in cords, cubic feet (CCF), or tons rather than board feet. For comparison in this chart, all volumes have been converted to board feet using 1 cord equals .9 CCF and 1.0 CCF equals .42 MBF. Therefore, the total volume figures are approximate. (MBF: thousand board feet, MMBF: million board feet)

Total Sales Sold – FY 2018

Area	Sales	Acres	Volume (MBF)
Southern Southeast	2	239	5,083
Northern Southeast	4	35	186
Kenai-Kodiak	5	64	206
Mat-Su/SW	0	0	0
Coastal Total	10	338	5,475
Fairbanks	8	234	1,504
Delta	2	10	17
Tok	1	500	956
Copper River	0	0	0
Northern Total	11	744	2,477
State Total	22	1,082	7,952

Harvest Activity on State Land – FY 2018

Area	Sales	Acres	Volume (MBF)	Stumpage Receipts
Southern Southeast	2	159	3,754	\$350,668.74
Northern Southeast	9	98	270	\$14,717.60
Kenai-Kodiak	4	44	106	\$8,025.00
Mat-Su/SW	0	0	0	\$0
Coastal Total	14	301	4,130	\$372,411.34
Fairbanks	12	176	1,426	\$77,587.80
Delta	8	59	453	\$24,289.58
Tok	3	0	62	\$2,120.00
Copper River	0	0	0	\$0
Northern Total	23	235	1,941	\$103,997.38
State Total	38	536	6,061	\$477,408.72

Timber Program Revenue (in thousand dollars)

FY 09	617.0
FY 10	521.9
FY 11	371.9
FY 12	601.7
FY 13	860.9
FY 14	753.1
FY 15	717.2
FY 16	870.2
FY 17	749.1
FY 18	574.6

Note: Timber program revenue is primarily from timber sales; a very small percentage comes from other sources including the sale of log brands and seedlings, reclamation bonds, and document fees.

Number of Personal Use Permits

FY 09	1847
FY 10	1831
FY 11	1410
FY 12	1325
FY 13	1366
FY 14	1440
FY 15	1103
FY 16	911
FY 17	1070
FY 18	674

Personal Use Sales

DOF sold 35 personal use sales totaling 67.31 MBF for \$5,037.02, two beach log salvage permits for \$2,000, and 639 personal use firewood permits for 2,360 cords for \$23,600.

Ten-Year Record of Timber Volume Sold (MBF)

Fiscal Year	Coastal Southeast	Coastal Southcentral	Northern Region	State Total	Sales Statewide
FY 09	5,597	1,451	11,036	18,084	91
FY 10	4,626	2,460	5,445	12,531	69
FY 11	12,865	3,913	7,281	24,053	71
FY 12	8,556	1,260	7,739	17,555	50
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

Good Neighbor Authority Projects

Tongass National Forest

The Good Neighbor Authority (GNA) program, established in 2014, allows the US Forest Service (USFS) to enter into cooperative agreements or contracts with states to perform watershed restoration and forest management services on National Forest System lands. The Alaska Region of the USFS (Region 10) and the Division of Forestry entered into a GNA master agreement in November 2016.

The 30 MMBF Kosciusko GNA timber sale contract was executed on September 19, 2017 as the first GNA supplemental project agreement under the master agreement. Alcan was the purchaser. That contract is set to end on December 31, 2023 and it remains on schedule.

The preliminary unit prescriptions, in agreement with the contractual plan of operations, have been developed and submitted to the USFS for concurrence. Improvement of roads, unit layout, and development of harvest schedule are ongoing and on schedule. The timber sale unit layout continues with collaboration between purchaser, state sales administrator, and USFS specialists.

The state and USFS have executed an amendment to the timber sale contract allowing 8.2 miles of reconstruction on the FS 1500000 road. The amendment provides \$809,183.82 that will be credited toward stumpage due under the contract. The road improvements are necessary to meet water quality requirements of the Alaska Forest and Resources Practices Act.

Reconstruction of 1.1 miles of another USFS road has been completed and accepted. The state continues to work on using extra stumpage receipts to facilitate habitat enhancement and recreation opportunities. Road reconstruction, pit development, culvert installation, and ditch work continue.

A USFS auditor interviewed the sale administrator and others associated the project under the GNA. The national GNA monitoring effort picked Kosciusko for that audit.

DOF recently entered a supplemental project agreement on the Tongass National Forest to manage another GNA timber sale (Vallenar) that has been combined with a timber sale on the Southeast State Forest for a total of about 16 MMBF (13.4 MMBF old growth and young growth in the SE State Forest + 2.8 MMBF young growth in the Tongass National Forest).

The Vallenar GNA Timber Sale was offered in September 2018; however, there were no bids on this sale whose volume would largely be exported to China. Due to the trade war between the United States and China, potential bidders shared concerns about adverse impacts to their businesses if required to pay tariffs. The current five and ten percent China tariffs on American timber exports are set to increase to 25 percent on January 1, 2019. The DOF is working with the Department of Law and USFS to develop an approach that would share the risks of tariffs among the state, USFS, and would-be purchasers on this sale and future sales while protecting the interests of the government agencies.

Chugach National Forest

On August 29, 2018, the DOF and the USFS entered their third GNA supplemental project agreement in Alaska and their first for the Chugach National Forest. This agreement will begin spruce bark beetle mitigation work in the Chugach; this is not a timber sale, but a forest health improvement project.

DOF crews will thin spruce, improving the health of the remaining trees and helping prevent beetles from infesting high-value areas within the Kenai Peninsula zone of the Chugach. The Granite Creek area is the first location identified for forest health protection and enhancement. Additional priority sites at high risk for beetle infestation in the forest may be identified and added for restoration and protection as funding allows. Under the three-year project, the Chugach will provide \$95,000 to DOF to perform forest health improvement work. In addition to benefitting forest health, it will provide funding for firefighters during the shoulder seasons and slow fire seasons. Furthermore, it can provide crew training opportunities and extend seasonal employment for firefighters.

Coastal Region Forest Management

The timber industry in the Coastal Region continues to decline, primarily due to insufficient short-term and long-term timber supplies from the Tongass National Forest and a decline in harvestable timber on Native corporation land. The U.S. Forest Service is in the process of changing its forest management focus to second-growth and practically eliminating old-growth harvest. This has significantly reduced the timber available for harvest. The industry is also plagued with higher costs for logging, transportation, and fuel; and the implementation of tariffs on timber exported to China.

The decrease in timber on federal land increases pressure on the state to fill the void in Southeast Alaska. The 46,592-acre Southern Southeast State Forest has an annual allowable cut of a little over 400 acres and 11 million board feet.

Spruce Beetle Strategy and All-Lands, All-Hands Groups

Populations of spruce beetles in the Mat-Su Valley and on the northern Kenai Peninsula have increased dramatically over the past two years. Survey estimates suggest that at least 915,000 acres of forests in the region have been impacted since 2016. Dead and dying spruce throughout southcentral Alaska have created hazardous conditions for people, vehicles, buildings, and utility lines due to windfall. Communities are at additional risk because dead spruce tend to increase the severity and danger of wildland fire.

The Division of Forestry has assembled two interagency/land-owner groups to coordinate efforts across ownerships, one in Kenai and one in the Mat-Su Valley. The groups include federal, state, borough and city agencies, as well as community groups and utility companies. The groups are working to identify the highest priorities for hazard tree removal, to find ways to use commercial and personal use timber harvest to remove beetle-killed spruce, and to procure funding to help agencies, private landowners and communities mitigate impacts from spruce beetles. Participants are also working across land ownerships to get approval for and facilitate removal of hazard trees from high value public use areas (for example, campgrounds and river access sites) and near utility corridors.



White spruce killed by spruce bark beetles, Susitna River. *Photo by Jason Moan*



Vallenar Timber Sale. (l to r) State Forester Chris Maisch; Lucy Murfit, deputy chief counsel Senate Energy and Natural Resources (SEN) Committee; Senator Bert Stedman; DNR Commissioner Andy Mack; Brian Hughes, staff director, (SEN) Committee. *Photo by Greg Staunton*

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 revenue and timber volume harvested from forested land in Alaska. The SE office manages the Southeast and Haines state forests and administers the Alaska Forest Practices Act on extensive private holdings within its jurisdiction.

The division completed the field work for the multiyear inventory on the Haines State Forest. This work will enable the division to assess forest health and more accurately predict timber growth on the forest and plan future timber sales and other activities. Maintenance was also performed this year to protect forest roads from decay, protect water quality, and keep them available for public use.

Most of the timber harvest activity on state land occurred on Prince of Wales Island early in the year. The office administered one large timber sale early in 2018 near Hollis and several smaller sales.

Completion of the Vallenar Bay Road in the spring provided access to the Gravina Island area of the Southeast State Forest. Field work completed in the fall on state forest and federal land in the area enabled DOF to offer a 16 million board foot joint timber sale under the Good Neighbor Authority.

Staff saw an uptick in forest practices activity on private land associated with strong log export markets in the first half of the year. Several new private operations became active in the southern and northern parts of the panhandle. In the latter half of the year activity remained busy yet somewhat guarded with tariffs looming on the horizon.



Dump trucks being loaded in a pit during road construction on the Hollis Timber Sale on Prince of Wales Island. *Photo by John Tapley*



Shovel logging on the Hollis Timber Sale on Prince of Wales Island. *Photo by John Tapley*

Kenai-Kodiak Area

The Kenai-Kodiak Area encompasses about 10 million acres on the Kenai Peninsula and Kodiak Archipelago. The office supports initial attack wildland fire response for the area and manages state timber sales and the Forest Practices Program in Regions I and II.

The area office sold four timber sales in 2018. 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 source of material for dimensional lumber, cabin kits, and dunnage. Public demand for firewood remains high and land management agencies coordinate to provide public access for gathering firewood.

Approximately 35 million board feet were harvested on Afognak Island in 2018 and operations will continue into 2019 and beyond. The division continues to process detailed plans of operations and make multiple field inspections each year on Afognak Island to ensure reforestation and current logging operations meet the requirements of the Forest Resources Practices Act.

The state maintains eight miles of forest road on the Kenai Peninsula, providing access for the public, future commercial timber sales, and personal use firewood gathering. Two bridge crossings on this road system were load-rated by an independent firm in 2018.

Mortality in mature white spruce continues to build with increased spruce bark beetle activity. Most of the activity is on the northern Kenai Peninsula, stretching as far south as Tustumena Lake. Mortality is expected to continue in mature white spruce stands for the foreseeable future.



As part of a wildland urban interface grant project for Cooper Landing, foresters identified the most effective locations for fuel breaks to protect the community. *Photo by Trevor DoBell-Carlsson*

Mat-Su & Southwest Area

This Mat-Su & Southwest Area includes the Mat-Su, 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 district is managed from Forestry's Palmer office and a seasonal office in McGrath. The Anchorage Bowl, including Joint Base Elmendorf-Richardson and Eagle River, encompasses the largest wildland-urban interface in the state, while lands in Southwest Alaska are among the least populated and most remote.

Three purchasers have four active state commercial timber sales on 297 acres in the Mat-Su, with another 49 acres available for over-the-counter purchase. The area also sold 413 cords of personal-use firewood under 114 online permits and an additional 17 negotiated personal use contracts for remote landowners in the Mat-Su Valley and Southwest Alaska.

A progressive three-year spruce beetle epidemic has caused significant white spruce die-off throughout the Mat-Su Valley. Spruce beetles killed much of the mature white spruce from Anchorage to the foothills of Denali. The area office responded by making more beetle-killed spruce available to the public for firewood and saw timber, and by planning for wildland fuels mitigation projects in coming years. The division also galvanized the many landowners under an All-Lands, All Hands working group to mitigate growing threats caused by forest fuels and hazardous trees.



Firewood salvaged from the 2010 Gillis Creek Fire along Pogo Mine Road.
DOF photo

Northern Region Forest Management

The Northern Region continues to focus on maintaining a sustainable supply of timber and meeting the needs of both the forest products industry and the public.

The demand for fuelwood has decreased slightly in the last few years due to lower fuel oil prices and milder winters. The division continues to provide information to communities on the benefits of burning dry, well-seasoned wood as the U.S. Environmental Protection Agency warns the cities of Fairbanks and North Pole of the ongoing danger to human health caused by high levels of particulate matter caused by wood burning.

Demand for saw log spruce remains stable with 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. Superior Pellet Fuel remains the largest purchaser of pulp and pole timber in the interior and the newly opened Tok Biofuels is now producing compressed fire logs.

Fairbanks-Delta Area

Timber is being commercially harvested throughout the Fairbanks and Delta areas. There are over 70 active timber contracts with 25+ operators on state land. Demand for saw logs remains stable and Northland Wood Products remains the primary purchaser, processing approximately three million board feet annually.

Superior Pellet Fuels leads in the purchase of pole timber and fuelwood, producing about 3,000 tons of pellets annually. Personal use firewood sales have stabilized in the last few years. In 2018, Fairbanks Area sold 273 permits for a total of 1,112 cords and Delta Area sold 44 permits for a total of 164 cords.

Regeneration surveys continue every spring in the Fairbanks-Delta Area. There was no planting in 2018 but 40,000 seedlings have been ordered for the summer of 2019.

Road work and maintenance are an ongoing need in the Fairbanks-Delta Area. Significant rain events led to numerous small road projects to repair damage. A contract for road resurfacing and the installation of new culverts along sections of Standard Creek Road was completed in August. A contract to repair a bridge abutment crossing Cache Creek was awarded with work expected to be completed in spring of 2019. Several smaller contracts were also awarded for minor road repairs along Quartz Lake Extension and the Rainbow Lake Access Road near Delta.



Tony Lee, Alaska Gateway School District facilities manager, and the refurbished steam generator, at Tok School.
Photo by Derek Nellis

Tok/Copper River Area

The Tok/Copper River Area encompasses about 30 million acres in the eastern Tanana River valley and Copper River Basin. Offices in Tok and Glennallen support initial attack wildland fire response for the region and manage state timber sales.

Demand for fuel wood, logs, and biomass remains consistent in the Tok Area. Nine operators have 15 active sales and most of the volume harvested in 2018 was fire and blowdown salvage.

The Alaska Gateway School District continues to refine its biomass plant operations. The current system enables the boiler to run at peak efficiencies with fuel that is around 30 percent moisture content. This has streamlined their fuel acquisition process as they can burn winter harvested green spruce and still meet fuel moisture thresholds. This system is producing both heat and electricity for the Tok school and will consume approximately 2,000 green tons of fuel annually.

Tok Biofuels will begin producing densified wood logs in the summer of 2019 and is expected to need an estimated 2,000 to 4,000 tons annually.

Personal use wood is in high demand in the Tok and Copper River areas and DOF maintains and develops access to timber for both personal use and commercial sales. Four new personal use harvest areas were established in 2018, three near Tok and one in Cordova. Copper River Area personnel visited the personal use areas this fall to assess for continued viability and to improve access. Tok Area maintained 16 miles of all-season forest road using local contractors and will establish ice crossings on the Tanana and Tok rivers and Moon Lake. Staff will monitor the crossings throughout the season. The Tok office is now charging the statewide standard of \$10/cord for personal use wood permits.

Cooperative Forestry Programs

The Community Forestry, Forest Health, and Forest Stewardship programs provide technical and financial assistance to diverse landowners and managers through cost-effective, non-regulatory partnerships. The programs are 100% federally-funded through grants from the U.S. Forest Service.

Economic impact

Over one million dollars in federal funds are infused annually into the state economy through these programs. In addition, local governments, agencies, and nonprofits contribute matching funds to projects. The economic impact of the technical and financial assistance to Alaska Native corporations, other private forest land owners and businesses, boroughs, local governments, and college campuses is also substantial.

Over one million dollars in federal funds are infused annually into the state economy through Cooperative Forestry Programs.

Forest Stewardship Program

The purpose of the Forest Stewardship Program is to provide private landowners with technical assistance for making decisions about forest resources. Funded by the U.S. Forest Service State & Private Forestry, the program responds to the requests of landowners to prepare forest stewardship plans and field visits that offer the latest scientific technical forestry advice. Forest stewardship plans often address forest health issues, reforestation, timber stand improvement, and defensible space from wildfire. Alaska Native corporations are provided grants to hire consulting foresters to prepare forest stewardship plans; individual private landowners receive plans written by Division of Forestry Stewardship Program personnel.

The Forest Stewardship Program receives guidance from the Forest Stewardship Committee, which is comprised of representatives from a broad range of Alaska private landowners and land management interests. Areas of discussion include grant and cost-share rates, eligibility criteria, outreach methods, and forest stewardship plan requirements.

2018 Highlights

- One Alaska Native corporation was awarded a grant to develop a forest stewardship plan that will cover more than 29,000 acres.
- One Alaska Native corporation completed a forest stewardship plan covering more than 20,000 acres.
- Five Alaska Native corporations are in the process of developing forest stewardship plans.
- Thirty plans, covering a total of 1,000 acres, were prepared for individual forest landowners.
- Forty homeowners completed wildfire fuel reduction projects.
- Forest Stewardship Program personnel provided Firewise education and outreach to more than 200 homeowners.

Planning by Alaska Native Corporations

Alaska Native corporations are the largest private landowners in Alaska and providing sub-grants that allow these corporations to develop forest stewardship plans is an important part of the Alaska Forest Stewardship Program. In 2018, a grant was provided to a Native corporation to develop a plan for over 29,000 acres. Another corporation completed a plan for its property, adding 20,000 acres to the year's total.

Important goals of Alaska Native corporations in 2018 were developing biomass energy, producing commercial timber, enhancing forest health and wildlife habitat, increasing forest resilience, and reforestation.

Since the inception of the Alaska Forest Stewardship Program in 1992, 61 forest stewardship plans covering 7,001,797 acres have been written for Alaska Native corporations. Plans expire after 10 years, meaning that 3.1 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, bringing economic benefits to Native villages in addition to helping restore previously logged areas to traditional land values.

Planning by Individual Landowners

Stewardship plans covering 1,000 acres were prepared for 30 private landowners. Primary goals for individual landowners were creating wildfire defensible space, producing firewood, and mitigating spruce beetle damage.

Since 1992, 979 individual landowners have adopted forest stewardship plans covering a total of 49,008 acres. Most plans are for landowners in the Matanuska-Susitna, Fairbanks North Star, and Kenai Peninsula boroughs.



A landowner leads DOF forester Taya Much on a stewardship property visit. A forest stewardship plan will help ensure that this family's property will continue to be sustainably managed for future enjoyment. *Photo by Trevor DoBell-Carlsson*



A forest stewardship plan is being developed for the property, which was logged by previous owner. The stewardship plan will make landowner eligible for Natural Resources Conservation Service cost share funding for site preparation, reforestation, and habitat improvement. *Photo by Trevor DoBell-Carlsson*

Cost-Share Assistance

Forest Stewardship Program personnel assist private forest landowners by providing advice on ways to mitigate the risk of catastrophic wildfires. The Council of Western State Foresters provides wildland urban interface fuels reduction grants for cost-share funding of practices to reduce hazardous fuels.

In 2018, stewardship foresters performed final inspections for more than 40 homeowners who had reduced hazardous fuels by strategically removing or pruning spruce trees near structures. More than \$80,000 in grants paid for this work. Staff provided education and literature about the importance of defensible space to more than 200 additional homeowners and attended many outreach and community events to educate the public on wildfire preparedness and forest management. Wildland urban interface grants are an important outreach method for increasing participation in the Forest Stewardship Program and are used to increase the conservation education delivered by the DOF.

Competitive Grant Projects

In 2018, the Forest Stewardship Program began implementing a wildland urban interface grant in Delta Junction. This will increase the ability of Forest Stewardship Program and fire prevention personnel to contact private forest landowners and deliver educational programs and outreach in an area with a high risk of wildfire. The grant will allow DOF to pass small sub-grants to homeowners in targeted areas of Delta Junction to incentivize the reduction of hazardous fuels. Personnel will also continue to provide outreach programs, assistance in developing forest stewardship plans, and wildfire preparedness and prevention education.

Additional Accomplishments

Forest Stewardship Program staff participated in a variety of public information and conservation education events and fairs offering forestry, fire prevention, and defensible space information, providing some form of outreach to over 300 landowners.

Forest Stewardship Staff

The Forest Stewardship statewide program manager is Trevor DoBell-Carlsson; Trevor also covers stewardship plan writing for landowners in the Matanuska-Susitna Borough and Municipality of Anchorage. Jim Smith is the Stewardship Forester for all private forested land north of the Alaska Range, and John Winters is the Stewardship Forester for the Kenai Peninsula, Kodiak Island, and all remote villages in the vicinity. Stephen Nickel serves part-time as Stewardship Forester (in addition to his position in the Community Forestry Program) for Mat-Su and Anchorage. Taya Much worked for two months as acting Program Manager and assisted with landowner outreach and education.

2018 FOREST STEWARDSHIP COMMITTEE MEMBERS

Jeff Curry, Farm Service Agency, Palmer

Clare Doig, Consulting Forester, Anchorage

Tom Dearlove, Kenai Peninsula Borough, Soldotna

Lee Hecimovich, Mat-Su/Copper River Cooperative Extension Service, Palmer

Dan Parrent, U.S. Forest Service State & Private Forestry, Anchorage

Will Putman, Tanana Chiefs Conference, Fairbanks

Conor Reynolds, The Nature Conservancy, Juneau

Sue Rodman, Alaska Department of Fish & Game, Anchorage

Jeff Smeenk, Palmer Soil & Water Conservation District, Palmer

Forest Health Program

The Division of Forestry cooperative Forest Health Program with the U.S. Forest Service – Forest Health Protection (USFS-FHP) is a key component in the forest health protection strategy in Alaska and includes both aerial and ground survey components. Annual aerial detection surveys occur across all land ownerships and cover about 15 percent of forested area in the state. Aerial detection mapping is an indispensable tool in documenting the location and extent of many active forest insect infestations, abiotic damage events, and some disease damage. The data recorded from the annual aerial detection surveys offer a snapshot of statewide conditions, though they generally do not represent the acres affected by pathogens, many of which are not visible by aerial survey.

Though DOF Forest Health personnel are involved in all facets of forest health in the state, focus is directed towards forest insects and aerial detection surveys. More detailed information pertaining to surveys and monitoring efforts for forest insects, tree diseases, invasive plants, and abiotic disorders is included in the annual Forest Health Conditions in Alaska report published by USFS-FHP in collaboration with DOF and other key cooperators.

2018 Highlights

Personnel

In May, the Forest Health Protection Program welcomed Martin Schoofs as a non-permanent Forest Health Forester. Martin came to the Division of Forestry shortly after finishing his master's degree in Environmental Science at Alaska Pacific University. He has been instrumental in ongoing field, outreach, and other projects.

Outreach

Forest Health staff connected with roughly 600 individuals seeking forest health assistance or information this year. The number of individuals assisted in 2018 is about 50% higher than in 2017 and the increase is directly tied to the ongoing spruce beetle (*Dendroctonus rufipennis*) outbreak in Southcentral Alaska. Within these numbers, Forest Health staff participated in 12 news media interviews related to the spruce beetle outbreak, including on-camera, radio, digital, and print media.

As occurred in the fall of 2017, DOF partnered with the University of Alaska Fairbanks Cooperative Extension Service in 2018 to provide five public workshops addressing spruce beetle biology, status, mitigation, and restoration. DOF's, Forest Health, Community Forestry, Forest Stewardship, and local area offices participated in the events. These workshops continue to be well received and more will be offered in 2019.



Spruce beetles in white spruce in Mat-Su.
Photo by Ed Soto

Research

In 2018, the Forest Health Program initiated two spruce beetle-related tree protection research projects in Southcentral Alaska. Most studies researching the protection of spruce trees in Alaska from spruce beetle occurred a decade or more in the past. Advances in the study of tree protection from bark beetles have occurred since that time and feedback received from spruce beetle-affected landowners indicates they want additional techniques for protecting high value trees. Additional tree protection research is planned for 2019.

- Project 1 tested the efficacy of spruce beetle anti-aggregation pheromones alone and in combination with host tree scents for protection of trees from beetle attack. This single-year effort was part of a larger project being conducted by Dr. Matthew Hansen, U.S. Forest Service, Rocky Mountain Research Station, Ogden, Utah, and was conducted in coordination with the DOF Mat-Su Area and Denali State Park. Comparable treatments were conducted this year in several western states; the Alaska trial was the project's only trial in white spruce. Unfortunately, the treatments in Alaska were not shown to have a significant effect.
- Project 2 is a three-year project to test the efficacy of injectable systemic pesticides currently registered for use in Alaska against spruce beetle. This project is being led by Dr. Christopher Fettig, U.S. Forest Service, Pacific Southwest Research Station, Davis, California, in cooperation with DOF, USFS-FHP, and Arborjet Inc. Treatments were conducted on study trees in 2018 and the effectiveness of the treatments will be determined in 2019 and 2020.

Surveys Overview

In 2018, DOF and USFS-FHP staff collectively mapped nearly 1.14 million acres of forest damage on the 28 million acres surveyed (see table, Forest Insect & Disease Activity Detected by Aerial Surveys in Alaska in 2018). The area of damage observed increased by 35 percent from 2017 and includes damage from insects, diseases, and abiotic agents.

State Forest Survey Summaries

Each year, aerial detection surveys cover portions of the Tanana Valley, Haines, and Southeast state forests. In 2018, about 42,000 acres of damage was noted within or partially within the three forests, with the majority occurring within the Tanana Valley State Forest (~40,850 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 (approximately 40% surveyed) – Aspen leaf miner (36,800 acres), spruce beetle (3,000 acres), and willow leaf blotch miner (790 acres). Northern spruce engraver activity observed within the state forest has continued to drop, while presumed spruce beetle activity has become more prevalent. For more detailed information about ongoing bark beetle activity see the bark beetle summary contained herein or refer to the Forest Health Conditions in Alaska 2018 publication.

Haines State Forest (approximately 60% surveyed) – Unknown hardwood defoliation (720 acres), spruce beetle (120 acres), flooding-related tree mortality (10 acres). Scattered spruce beetle activity has been ongoing for several years around Haines, though the mapped activity has decreased since last year (380 acres in 2017).

Southeast State Forest (approximately 58% surveyed) – Yellow-cedar decline (190 acres), porcupine-caused damage (90 acres). Yellow-cedar decline continues to be prevalent in Southeast Alaska.

Bark Beetles

Spruce beetle

Spruce beetle activity was observed on nearly 593,000 acres in 2018, representing an approximately 46 percent increase since 2017. This represents the most active spruce beetle damage mapped during the surveys in a single year since 1997, which was the year following the peak of the spruce beetle outbreak in the 1990s. The ongoing spruce beetle outbreak in Southcentral Alaska, which is estimated to be in its third year, continued to expand both geographically and in severity and accounts for roughly 94 percent of the spruce beetle damage mapped statewide. Most of the damage is concentrated in the Matanuska-Susitna Borough, notably in the Susitna River valley and adjacent drainages (504,000 acres).

Within the outbreak, the northwestern Kenai Peninsula and portions of the Kenai Peninsula Borough on the west side of Cook Inlet are also seeing notable spruce beetle damage (52,000 acres). Spruce beetle damage is also becoming more apparent in the northern portions of the Municipality of Anchorage (1,500 acres).

Notable areas of activity: Susitna River valley and Beluga Lake area; northwestern Kenai Peninsula; Valdez area; Lake Clark and Katmai National parks, Wood River valley; Tanana River valley; Endicott, Chilkat, and Excursion river valleys.

Northern spruce engraver

NSE-caused mortality was mapped on 1,600 acres in 2018, down from 6,000 acres in 2017. Projects to monitor and mitigate damage from NSE in the Interior are ongoing in several locations.

Notable areas of activity (all these areas should be considered a collection of scattered small areas of damage): Chena River valley – Fourmile Creek to Mastodon Creek, Yukon River valley – many locations, Kuskokwim River – many locations.

Defoliating Insects

Approximately 506,600 acres of damage observed during the aerial detection surveys was attributed to defoliating insects, with nearly 99 percent of that damage resulting from a variety of hardwood defoliating pests. Approximately 69 percent of these defoliation acres can be attributed to two insects, the aspen leaf miner (240,000 acres) and birch leaf miner (108,600 acres). Aspen leaf miner is consistently among the top defoliating insects, acreage-wise, observed. Birch leaf miners, which consist of two non-native sawfly species, are not often mapped over large areas due to the damage not being readily visible during the normal survey timeframe. Surveys in Southcentral Alaska were delayed in 2018 to allow for more comprehensive documentation of the birch leaf miner activity.

Other defoliators of note

Generalist hardwood defoliation in parts of the Alaska and Aleutian ranges and western Alaska continued to be less prevalent in several areas it had been mapped over the last few seasons. Notable defoliation continues, however, in Wood-Tikchik State Park and along the Yukon River near Koyukuk.

A hemlock sawfly outbreak (48,600 acres) was detected in several locations in Southeast Alaska, including Admiralty, Mitkof, Wrangell, Etolin, Prince of Wales, Revillagigedo, Gravina, and Annette islands as well as the Cleveland Peninsula. Outbreaks of this native insect are sporadic and are generally limited in duration.

Forest Insect & Disease Activity Detected by Aerial Surveys in Alaska in 2018

This table is from the report, Forest Health Conditions in Alaska 2018. All values are in acres. Acre values are only relative to survey transects and do not represent the total possible area affected. Table entries do not include many diseases, e.g. decays and dwarf mistletoe, which are not detectable in aerial surveys.

Table 1. Forest insect and disease activity detected during aerial surveys in Alaska in 2018 by land ownership and agent. All values are in acres¹.

<i>Category</i>	<i>AGENT</i>	<i>Total Acres</i>	<i>National Forest</i>	<i>Native</i>	<i>Other Federal</i>	<i>State & Private</i>
Forest Diseases	Dothistroma needle blight	3,605	1,607	46	273	1,679
	Alder dieback	3,206	164	321	429	2,292
	Spruce needle rust	304	0	97	0	206
	Spruce broom rust	188	0	11	139	38
	Hemlock canker	45	35	0	0	9
Defoliators	Aspen leaf miner	239,834	0	46,159	41,891	151,784
	Birch leaf miner	108,612	0	1,350	2,270	104,991
	Hemlock sawfly	48,567	45,258	840	78	2,392
	Willow leafblotch miner	35,763	0	13,697	12,302	9,763
	Birch defoliation	24,110	0	1,884	15,767	6,459
	Aspen defoliation	17,944	0	1,498	11,830	4,617
	Speckled green fruitworm	8,453	0	1,435	0	7,018
	Hardwood defoliation	6,566	87	3,486	1,623	1,370
	Conifer defoliation	4,165	2,251	623	59	1,231
	Willow defoliation	4,101	22	600	3,219	259
	Cottonwood defoliation	3,625	1,668	1,018	700	238
	Large aspen tortrix	1,960	0	1,200	631	130
	Spruce defoliation	1,863	1,604	13	4	242
	Alder defoliation	860	134	293	207	226
	Spruce aphid	126	106	6		15
	Birch leaf roller	61	0	0	0	61
Mortality	Spruce beetle	592,630	647	30,754	59,383	501,846
	Aspen canker	5,651	0	512	94	5,046
	Northern spruce engraver	1,633	0	828	592	212
	Western balsam bark beetle	112	0	0	0	112
	Hemlock mortality	25	25	0	0	0
	Eastern larch beetle	10	0	0	0	10
Noninfectious and Miscellaneous Damage	Yellow-cedar decline	17,721	14,952	1,250	18	1,501
	Flooding/high-water damage	3,729	604	1,188	1,361	576
	Porcupine damage	2,491	1,408	377	0	707
	Windthrow/blowdown	1,001	92	367	411	131
	Larch discoloration	399	0	0	396	4
	Landslide/avalanche	235	76	114	0	45
	Hemlock flagging	143	94	13	0	36
	Birch crown thinning	124	0	0	0	124

Alaska Community Forestry Program

Trees and greenspaces confer many health, social, economic and environmental benefits but they need care to maximize these benefits. The Community Forestry Program helps communities enhance these benefits through effective management. Two program staff, funded through a partnership with the U.S. Forest Service, offer technical and educational assistance to local governments, state and federal agencies, tree care professionals, and nonprofit organizations.

The Alaska Community Forest Council 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; and
- Community forests and rural forests are connected and good management of one helps the other.

Community Assistance

In 2018 Community Forestry Program staff:

- Provided technical assistance and information to local governments, state and federal agencies, landscape architects, tree services, utilities, and homeowners.
- Submitted information for the National Association of State Foresters Stormwater Mitigation Performance Measure report. NASF supports investing federal funds to use national, quantified, performance measures to implement green infrastructure and stormwater mitigation through U.S. Forest Service State & Private Forestry Programs. Seven states, including Alaska, were part of the initial report.
- Served on the Fairbanks Green Infrastructure Group, UAA Tree Campus USA Committee, and the Anchorage Cooperative Weed Management Association.
- Held two Alaska Community Forest Council meetings in Anchorage and held additional meetings via videoconference.
- Engaged with organizations to remove invasive European bird cherry trees on public park land.

Alaska Community Forest Council

Nan Mundy, Chair, Juneau

Laura Charlton, Vice Chair, Ketchikan

Gino Graziano, Secretary, Anchorage

Nathan Lojewski, Treasurer, Anchorage

Paul Guzinski, Anchorage

Jeremy Douse, Fairbanks

Dan Rees, North Pole

Stephen O'Sullivan, Wasilla

Daniel McKenna-Foster, Kodiak

Jud Kirkness, Sitka

Patrick Ryan, Anchorage

Jon Gellings, Juneau

Pamela Samash, Nenana



Nordic skiing Olympic gold medalist Kikkan Randall's son Breck plants a pink blossoming crabapple in honor of his mom at Kincaid Park in Anchorage in June. Grandparents Deborah and Ronn Randall and their nieces Kelsey and Kira Johannes help.

Photo by Stephen Nickel

Anchorage

- In honor of Olympic Gold Medalist Kikkan Randall, a 'Prairifire' crabapple was planted in the roundabout at Kincaid Park on June 27. Kikkan was unable to attend but her two-year-old son Breck, parents, and other family members were present. Program staff initiated the idea and municipal staff saw it through. Randall's signature color is pink, and this crabapple has pink blossoms. The tree and color took on added significance when, shortly after the planting, Kikkan announced that she had begun treatment for breast cancer.
- Program staff issued contracts to edit the 2010 Municipality of Anchorage Forestland Assessment and to update the MOA Tree Canopy Assessment. Data from the 2018 canopy assessment reported that the Anchorage tree canopy has increased by two percent since 2010.
- Program staff participated on the Anchorage Climate Action Plan team during the fall. This collaboration between the Municipality of Anchorage and University of Alaska is designed as an interdisciplinary process they hope will result in a plan adopted by the Municipal Assembly. Community Forestry was invited to take part in the Urban Forestry and Watersheds group, one of seven working groups. Staff helped develop five objectives, numerous action items, and potential project partners for the protection and enhancement of urban forests and watersheds.
- Program staff continued to implement a U.S. Forest Service Landscape Scale Restoration grant project "Fish Need a Forest: Restoring Campbell Creek Using Green Infrastructure." This project is restoring a seven-mile stretch of Campbell Creek where it runs through a highly developed area in Anchorage. Project partners, including the Anchorage Park Foundation and the Municipality of Anchorage's Youth Employment in Parks, continued work to restore riparian forest functions, improve habitat and water quality, create low impact pedestrian routes at prioritized sites, and engage the community in education and stewardship. Staff began work with the Anchorage Park Foundation to identify sites and organize five community tree planting events.
- Provided instruction on Arbor Day to the Anchorage Rilke Shule German Immersion School on how to plant and care for trees.
- CF staff conducted a pruning and tree maintenance class for Joint Base Elmendorf-Richardson personnel.
- Assisted two recipients of Orchard/Food Forest grants - the Government Hill Commons and the Salvation Army Clitheroe Center. The grants support the testing and demonstration of fruit trees that can be grown in Alaska.



Anchorage Mayor Ethan Berkowitz planting a Tokat plum at the Bragaw Community Gardens on Arbor Day, May 21. (L to R) Anchorage Parks and Recreation staff Chris Elander (holding tree), Janine Dickson, Corbin Frasier, and Alex Cunningham, and Mayor Ethan Berkowitz.

Photo by Stephen Nickel

Fairbanks

Program staff continued to implement a U.S. Forest Service Landscape Scale Restoration grant project “Restore the Chena Watershed Using Green Infrastructure”. This project demonstrates green infrastructure designs as cost effective ways to decrease runoff and improve water quality for a healthy and sustainable fishery. In 2017 project partner Tanana Valley Watershed Association completed five Power Point presentations on green infrastructure. TVWA also designed and developed Green Streets Boards that were displayed in the Fairbanks City Hall. Two online videos are being produced showing green infrastructure best management practices: one on Green Streets Policy and a Facebook video on the Carlson Center Rain Garden.

TVWA partnered with the Fairbanks Soil & Water Conservation District Youth for Habitat, UAF Georgeson Botanical Garden, and other partners to maintain and improve the Carlson Center rain garden, which intercepts parking lot runoff that drains toward the river. Work included pruning the rain garden’s large cottonwood tree, weeding, removing gravel and trash, planting shrubs, and adding soil and mulch.

Palmer

Staff provided technical assistance transplanting two historic crabapple trees from the Kertulla Homestead to the Mat-Su Community College.

Education

The Community Forestry Program provided training or technical assistance for 56 people from 12 communities in 2018: Anchorage, Fairbanks, Joint Base Elmendorf-Richardson, Juneau, Ketchikan, Kodiak, Ninilchik, North Pole, Palmer, Sitka, Talkeetna, and Wasilla.

Dr. Julian Dunster, named Arborist of the Year in 2016 by the Pacific NW International Society of Arboriculture, taught two all-day classes in Anchorage. The first was Documenting Evidence: Practical Guide for Arborists and the second was Advanced Tree Risk Assessment.

Arbor Day

Six communities held Alaska Arbor Day events in May. The events included elementary school, middle school, and university tree plantings; and seedling giveaways by an Anchorage florist and a utility.



Drainage swale and vegetation to mitigate stormwater runoff and improve water quality installed by the Anchorage Youth Employment in Parks crew in June along Campbell Creek in Anchorage.

Photo by Stephen Nickel

Community Forestry Organizations

In 2018, volunteers donated 497 hours to community forestry projects in Alaska. Citizen groups around the state organized volunteers, raised funds, supported tree planting and care, and offered educational programs. Chugach Electric Association donated \$1,000 to the Alaska Community Forest Council for public education. After several years of work, the council completed and published an attractive brochure highlighting the organization and its mission.

The most active community forestry organizations in Alaska are: Alaska Community Forest Council, Fairbanks Arbor Day Committee, Juneau Urban Forestry Partnership, and Sitka Tree and Landscape Committee.

Staff also engaged with other organizations that are actively planting and promoting tree planting, or that expressed interest in tree planting, including:

- Alaska Pioneer Fruit Growers Association
- Alaska Food Policy Council, Local Foods, Local Places committee
- Alaska Botanical Gardens
- Fairbanks Soil and Water Conservation District
- Society of American Foresters
- Anchorage Cooperative Weed Management Association
- Government Hill Commons
- Salvation Army, Clitheroe Center
- South Addition Community Council (Anchorage)

Fire Suppression & Preparedness

Alaska Fire Season 2018

For the third year in a row, Alaska experienced a relatively quiet wildfire season in 2018. A total of 362 fires burned an estimated 411,176 acres statewide, well below the 10-year annual average of 518 fires and 1.1 million acres burned. As is usually the case, there were more human-caused fires reported than lightning-caused blazes, but the acreage burned by lightning-caused fires far surpassed acres burned by human-caused fires. For the season, 224 human-caused fires burned 28,984 acres and 138 lightning-caused fires burned 382,193 acres.

Most of the acreage burned in Alaska in 2018 was in Alaska Fire Service protection areas. A total of 365,112 acres burned in AFS zones while only 46,036 acres burned in state protection areas. A total of 28 acres burned in U.S. Forest Service protection areas.

More than half the total acreage burned, 218,501 acres, was in the BLM AFS Tanana Zone west of Fairbanks and more than half of that acreage was the result of two fires – the Zitziana River Fire and the Mooseheart Fire. At 71,942 acres and 54,931 acres, respectively, these were the two largest fires in Alaska in 2018.

While the first human-caused wildfire of the season was reported on February 4 in Southeast Alaska, a cool spring with prolonged snowpack delayed the start of the wildfire season around much of the state, particularly in the Interior. There were only 11 fires reported statewide during the month of April and only one of those was north of the Alaska Range. Total acreage burned in April came in at just 2 acres. Conditions remained cool and wet in May, especially in the northern half of the state, which continued a trend of quiet wildfire activity around the state. A total of 74 wildfires were reported in May and they burned only 196 acres.

A wind storm in the Fairbanks/Delta area on May 11 produced the first significant wildfire of the season. The 117-acre North Eielson Fire near Delta was caused by a tree falling on a power line. The fire was torching in black spruce with 50-foot flame lengths and spotting into nearby agricultural fields with several residences threatened. A quick and aggressive response by a Division of Forestry helicopter, several Forestry engines, two local fire departments, eight smokejumpers, an air tanker, air attack, dozers and three hotshot and Type 2 initial attack crews brought the fire under control before any structures were damaged. DOF personnel remained on scene for about a week mopping up the fire. The peak number of personnel working on the fire was 74.

Lightning entered Alaska's wildfire equation in June when more than 20,000 lightning strikes were detected around the state June 3 - 6. There were 78 new fires reported during that four-day period, most of which were lightning starts in remote areas.

10 largest wildfires in 2018

1. Zitziana River Fire (Tanana Zone)
71,942 acres
2. Mooseheart Fire (Tanana Zone)
54,931 acres
3. Dulby Hot Springs Fire (Galena Zone)
44,364 acres
4. Kevinjik (Upper Yukon Zone)
28,394 acres
5. Little Melozitna River Fire (Tanana Zone)
27,221 acres
6. Taixsalda Hill Fire (Tok Area)
27,194 acres
7. White Mountain Creek Fire (Tanana Zone)
23,311 acres
8. Deniktaw Ridge Fire (Galena Zone)
21,418 acres
9. Swift Fork Fire (Tanana Zone)
14,621 acres
10. Door Mountains Fire (Southwest Area)
10,454 acres



The North Eielson Fire in Delta Junction was the first wildfire of the 2018 season that drew a significant response from Division of Forestry firefighters. The 117-acre fire started on May 11.

Photo by La'Ona DeWilde

The first significant lightning-caused fire occurred on June 3 when the 149-acre Livingston Fire ignited about 15 miles south of Fairbanks. Several members of the public reported seeing lightning strikes in the area and the smoke column from the fire was clearly visible from the Parks Highway. The fire was approximately five miles east of the Parks Highway and west of the Tanana River.

Personnel were not able to reach the fire because of wet conditions and firefighters had to be shuttled in by helicopter. Sixteen smokejumpers from BLM AFS were dropped on the fire to protect structures and three 20-person crews from the Division of Forestry and BLM AFS in Fairbanks were flown in by helicopter. An air tanker based in Fairbanks dropped several loads of retardant around the fire to slow its spread while four water-scooping aircraft from BLM AFS and a helicopter from the Fairbanks Area were used to drop water on the fire as additional personnel were flown in. Firefighters were able to corral the fire over the next few days and spent another few days mopping up. All resources were demobilized within one week.

The largest fire in state protection areas was the 27,194-acre Taixtsalda Hill Fire that started on July 23 approximately 40 miles southeast of Tok. The human-caused fire, which was still under investigation when this report was written, grew quickly despite an aggressive aerial assault that included air tankers dropping retardant and helicopters making water drops.

The fire was in a full protection area on Tetlin Native Corporation lands and initial attack efforts were not successful in containing it. Due to limited resources and the quick growth of the fire, managers switched tactics from full suppression to point protection. A Type 3 organization was brought in to manage the fire and four Type 2 crews were called in to protect two Native allotments and a U.S. Fish and Wildlife Service cabin that were threatened.

More than 150 personnel were ordered to work on the fire and crews successfully burned out around the two allotments to remove fuel from the approaching fire. Crews also set up protection measures around the cabin, a radio repeater site, and a remote automated weather station. Cooler, wetter weather moved into the area on August 3 to help reduce fire activity and the fire was turned over to a smaller Type 4 organization on August 6. Crews and other resources were demobilized by August 7 and the fire was placed in monitor status.

For the season, the Division of Forestry staffed only 17 fires, the lowest number of DOF-staffed fires in more than 15 years. The Alaska Fire Service staffed 28 fires and the U.S. Forest Service had four staffed fires.

One of the main reasons for Alaska's slow fire season was the lack of consistently hot, dry weather in May and June, which are typically the busiest fire months. In Fairbanks, for example, there were only four days in May when the temperature reached 70 degrees or warmer and the temperature never exceeded 72 degrees. In June, there were 18 days of 70-degree or warmer temperatures but only one day when the temperature climbed above 80 degrees. Southcentral Alaska was even cooler. Anchorage never reached 70-degrees in May and had only three days of 70 or above in June. The longest stretch of hot, dry weather was in late July when the temperature in Fairbanks reached 73 degrees or higher for 12 straight days and 80 degrees or higher for five consecutive days.

Alaska never reached Preparedness Level 3 and there were only 21 days when Alaska was at Preparedness Level 2, an indication of the minimal wildfire activity and low demand for resources in 2018.

Highlights of Alaska's 2018 Fire Season

- First human-caused fire reported on February 4 on Douglas Island in Southeast Alaska.
- First lightning-caused fire reported on June 3 about 15 miles south of Fairbanks.
- Alaska Smokejumpers logged their first jump on June 1 for the Ready Bullion Creek Fire, a small fire burning close to the Trans-Alaska Pipeline, five miles southwest of Livengood.
- Total acreage burned (411,176 acres) was the lowest acreage total since 2014 (233,849 acres).
- Alaska deployed 18 Type 2 Emergency Firefighting crews to the Lower 48 to assist on wildfires in 14 states.
- 224 human-caused fires burned 28,984 acres.
- 138 lightning-caused fires burned 382,193 acres.
- A total of 365,112 acres burned in Alaska Fire Service protection areas, while 46,036 acres burned in state protection areas. A total of 28 acres burned in U.S. Forest Service protection areas.
- The 27,194-acre Taixtsalda Hill Fire (Tok Area) was the largest fire in state protection areas.

Coastal Region Fires

Southeast Area

Southeast, unlike the rest of the state, had a dry summer and a higher number of fires reported than in past years. All reported fires were human-caused and relatively limited in geographic extent.

Kenai-Kodiak Area

The Kenai-Kodiak Area had 31 fires totaling 29.4 acres burned and 95 percent of the fires were caused by humans. In response, the office has a robust prevention and education program investigating human-caused fires and educating the public on safe burning practices. In 2018, the Area participated in 29 community educational events, reaching more than 40,000 people in an ongoing effort to reduce the number of human-caused fire starts.

Mat-Su/Southwest Area

Due to the wet summer, most of the staff deployed to the Lower 48 by mid-July. The Mat-Su had 59 fires on 60 acres with no significant fires in the wildland-urban interface. The Southwest had 40 fires on 17,307 acres. Early in the year, Mat-Su fire crews conducted prescribed burns on military lands as a prevention measure against a larger fire in the Anchorage urban interface.

Northern Region Fires

In preparation for the fire season, the Fairbanks Area worked with local fire departments and other cooperating agencies to provide wildland fire training and to hold emergency and evacuation planning. The division, local governments, and emergency service providers continued to develop strategies, share resources, and consolidate wildfire risk planning to address the threat to the communities. DOF updated annual operating plans and cooperative agreements with fire departments in Delta, Fairbanks, and the Denali Borough.

Fairbanks/Delta Area

Fairbanks had 33 fires totaling 1,080 acres that were actively managed. Delta had 14 fires totaling 129 acres. Coal seam fires near Healy again required a response from the DOF. The Lignite Creek and Louis Creek fires threaten important infrastructure and the local community and were highly visible to the public. These coal seams have been burning for many years and ignite vegetation annually as dead grass and leaf litter become dry enough to carry fire following the spring thaw. The hazardous terrain and noxious smoke from burning coal create many suppression challenges. The Denali Borough, Tri-Valley Fire Department, Denali National Park, and the Usibelli Coal Mine assisted DOF in monitoring and containing these fires.

The Livingston Fire, started by lightning on June 3, was located eight miles southwest of Fairbanks near the site of the 1983 Rosie Creek fire (6,900 acres) and grew to 149 acres. The Fairbanks Area, helitack, engines, the White Mountain hand crew, retardant tankers, and the BLM Alaska Fire Service responded rapidly.



Livingston Fire.
Photo by DOF Fairbanks Area Helitack

The White Mountain Type 2 Initial Attack hand crew started work in April. After completing two weeks of training, it constructed 20 acres of shaded fuel breaks in the Fairbanks North Star Borough. The crew spent 30 days on fires in Alaska, assigned to the Zitziana River Fire near Tanana, the Livingston Fire near Fairbanks, the Tiechovun Lake Fire near Chalkyitsik, and other smaller fires. The crew went to the Lower 48 early in August and spent 65 days in Utah, Idaho, and Nevada.

Prescribed fire and fuel treatment play an important role in Alaska forest management. The Delta/Fairbanks Area partnered with local emergency services providers, fire suppression agencies, and land managers to reduce wildland fire risk through planning, promoting fire safety, and using Firewise principles. Collaborators include the Fairbanks North Star and Denali boroughs emergency services, fire chiefs and land management departments; the BLM-Alaska Fire Service and Northern Region; DNR's Division of Mining, Land, and Water, and Mental Health Trust Land Office; University of Alaska Lands Office; and the Department of Environmental Conservation.

Delta Forestry and the Department of Fish & Game used prescribe fires to treat 438 acres on the Delta Bison Range with great success. The division also used mechanical treatment to manipulate fuel in support of Fish & Game's habitat enhancement program. An additional 150 acres will be treated this winter.

Eighty residents signed up for the Delta Area Firewise outreach and wildland/urban interface cost share grants and 30 started work. Forestry helps homeowners on tasks that will keep homes safe from wildland fires.

Roller chopping in Delta to enhance wildlife habitat and reduce wildfire fuels. *Photo by Mike Goyette*



White Mountain Crew (L to R) Superintendent Owen Smith, Assist. Superintendent Jon Cox, Cedar Anderson, Ronald Kendall, Tyler Nasti, Mekiah Stansel, Skyler Reeves, Jacob Hollander, Colton Meier, Nicholas Connell, Robert Wallace, Ernest Prax, Samuel Allen, Adan Burris, Kevin Currier, Riley Jones, Quinn Evenson, Dustin Shanahan, James Winter, Graham Hutson. *Photo courtesy of White Mountain Crew*

Fairbanks Forestry continues to work on community wildfire plans with local governments, landowners, fire chiefs, and others. The plans include objectives, prevention actions, and plans for risk management, cost sharing, and on-the-ground projects. Treated areas reduce hazardous fuels and allow emergency responders to more safely fight fires and increase the likelihood of saving lives and property.



White Mountain Type 2 Initial Attack Crew member uses a drip torch to start a prescribed burn on the Delta Junction Bison Range in May. The crew, along with DOF staff, assisted the Dept. of Fish and Game with the prescribed burn to improve bison habitat.

Photo by Tim Mowry

Tok/Copper River Area

Tok Area had 30 fires totaling 27,351 acres burned, including the 27,193-acre Taixtsalda Hill Fire. Copper River Area had 28 fires for a total of just under three acres burned.

DOF entered into a cooperative agreement with the Copper River Ahtna Inter-Tribal Resource Conservation District to implement the Copper River Basin Safe Villages Phase 1 Wildland Urban Interface Grant project. As of the end of November, 74 homes had been assessed and two fuel reduction crews had begun work under the direction of DOF staff.



Tok Area Fire Management Officer Peter Talus, right in yellow shirt, talks to a Northway resident about the Taixtsalda Hill Fire following a public meeting on July 27. *Photo by Jim Schwarber*

Alaska Firefighters Assist on Lower 48 Fires

The light wildfire season in Alaska opened the door for firefighting personnel to travel to the Lower 48 to assist western states. Most agency-sponsored crews departed Alaska in mid-July when fire danger in Alaska waned. Two agency crews remained in Alaska due to a stretch of hot, dry weather during the last two weeks of July, but those crews headed south in early August when heavy rain put an end to Alaska's fire season. Eight of the 10 crews that worked in the Lower 48 remained for at least two months.

Alaska's three Type 1 interagency hotshot crews had 22 assignments; the state's five Type 2 initial attack crews had 39 assignments; and two agency Type 2 crews had four assignments. In addition to agency-sponsored crews, 17 emergency firefighting crews were mobilized from Alaska to the Lower 48, each of which worked a two-week assignment.

Counting crews and overhead personnel, almost 600 Alaska firefighting personnel traveled to the Lower 48 to assist on fires. Alaska crews and overhead personnel worked in 14 states: Arizona, California, Colorado, Florida, Idaho, Missouri, Montana, Nevada, New Mexico, Oregon, Texas, Utah, Washington, and Wyoming.

The Alaska Interagency Incident Management Type 1 Team, which includes several DOF personnel, traveled to southwest Oregon in August to manage the Taylor Creek and Klondike fires in the Rogue River-Siskiyou National Forest near Grants Pass. The Alaska IMT was the fourth Type 1 IMT to manage the incident and it spent two weeks based in Selma, Oregon. At the time of transition, the Taylor Creek Fire was estimated to be 48,257 acres with 45 percent containment and 986 personnel assigned. The Klondike Fire was estimated at 55,248 acres, 15 percent containment with 569 personnel assigned.



Chainsaws on their shoulders, the Pioneer Peak Interagency Hotshot Crew climbs a hill while working on the Riggs Fire in Bryce Canyon, Utah in September. *Photo by Division of Forestry*

The historical fire occurrence in the area added to the complexity of the incident. The threat posed by the Chetco Bar Fire in 2017 remained fresh in the minds of residents, as did the 500,000-acre Biscuit Fire in 2002. Additionally, the frequency of off-shore winds that create critical fire weather conditions increase that time of year, creating anxiety for both residents and agency personnel.

During the Alaska IMT's two-week tenure, containment was achieved along the southeastern flank. Night shift burnouts supported by Unmanned Aerial Systems (drones) for both holding and firing operations contributed greatly to this success. The progression of the Klondike fire towards Hwy. 199 and the Illinois Valley was halted, and some evacuated residents along the Illinois River were able to return home.

The Alaska IMT coordinated suppression strategies with the Bureau of Land Management, the Oregon Department of Forestry, and the U.S. Forest Service – as well as with local emergency response agencies. In addition, approximately 200 members of the Oregon National Guard and 12 firefighters from Australia and New Zealand assisted.

On August 25, the Alaska IMT transitioned command of the fires to Northwest Team 12 and the California team. At the time of transition, the Taylor Creek Fire was estimated to be 95 percent contained while the Klondike Fire was estimated at 39 percent containment.



The Chevak Type 2 Emergency Firefighting Crew feeds trees into a chipper while on assignment in Montana in August. The crew worked on the Beaver Creek and Goldstone fires during their two-week assignment. The Chevak Crew was one of 17 Alaska EFF crews that traveled to the Lower 48 in 2018. *Photo by Brita West*

The Alaska Type 1 Incident Management Team poses for a photo at the end of its assignment on the Taylor Creek and Klondike fires in Southwest Oregon in August. The team spent two weeks in Oregon managing the two fires, which were the biggest of the season in Oregon. *Photo by Sam Harrel*



10 LARGEST FIRE SEASONS ON RECORD

Year	Fires	Acres
2004	701	6,590,140
2015	768	5,111,452
1957	391	5,049,661
1939	200	5,000,000
2005	624	4,649,597
1940	130	4,500,000
1969	685	4,231,820
1941	138	3,654,774
1990	750	3,189,079
2009	516	2,934,608

FIRE ACTIVITY BY PROTECTING AGENCY

Agency	Fires	Acres
AFS	121	365,112.1
STATE	203	46,035.7
USFS	38	28.14

ACRES BURNED BY LANDOWNERSHIP

Landowner	Fires	Acres
Alaska Native Claims Act Lands	45	106,250.2
Borough	12	118.5
Bureau of Indian Affairs	0	0.0
Bureau of Land Management	28	111,389.7
City	3	20.1
Department of Defense	20	48.0
National Park Service	21	21,393.3
Other Federal Lands	1	0.1
Private	93	388.9
State	102	138,571.5
U.S. Fish & Wildlife Service	24	32,973.6
U.S. Forest Service	13	22.1
Totals*	362	411,176.1

*Number of fires reflects land ownership at origin. These are acre totals burned by landowner. Data compiled from fire perimeters.

WILDFIRES BY CAUSE

Cause	All Fires		State Protection		AFS Protection		USFS Protection	
	Fires	Acres	Fires	Acres	Fires	Acres	Fires	Acres
Campfire	48	36.4	21	11.1	4	2.3	23	23.0
Children	6	0.8	5	0.7	-	-	1	0.1
Debris Burning	49	63.4	40	59.2	2	0.2	7	4.0
Equipment	13	7.9	13	7.9	-	-	-	-
Incendiary	8	6.1	3	0.3	5	5.8	-	-
Lightning	138	382,192.6	46	17,744.5	92	364,448.1	-	-
Miscellaneous	64	951.6	50	881.0	10	69.9	4	0.7
Railroad	-	-	-	-	-	-	-	-
Smoking	3	0.3	2	0.2	-	-	1	0.1
Under Investigation	1	0.1	-	-	-	-	1	0.1
Undetermined	32	27,917.0	23	27,331.1	8	585.8	1	0.1
Totals	362	411,176.2	203	46,036.0	121	365,112.1	38	28.1

*Data current as of December 10, 2018

Aviation Program

The 2018 fire season and associated flight activity was light. This was the sixteenth year free of accidents or incidents, thanks to personnel dedicated to maintaining the level of safety and training required to achieve the mission of the program.

There were no changes in pilot or administrative staff but there is a new face on the maintenance staff. Rob Hoecher moved on to a position with a private company leaving a vacancy in the Maintenance Inspector's Office. Galen Gaunt the LTC aircraft mechanic moved up to fill this position and Tom Abby accepted the aircraft maintenance position.

The turbine Commander and Shrike 500 contributed well over half the flight hours to Aviation Program totals. Pilot Doug Burts and Air Attack Tim Whitesell took the Commander 1000 on assignment to the Lower 48, leaving in early August and returning in October. The division-owned Commander 500S provided logistical support and ATGS training, aerial firing and INFRARED mapping missions in the Lower 48 as well. The DHC-2 Beaver and the Commander 840, acquired through the U.S. Forest Service Federal Excess Property Program, remained in Alaska.

This was the first year of a five-year contract for two of the Convair 580 type 2 airtankers supplied by Conair of Abbotsford, BC. One was based in Palmer and the other at the Ladd Army Air Base in Fairbanks. At the request of Northwest Compact member, Alberta, California, a Convair 580 airtanker and Tanker 42 spent seven days in Alberta assisting with fires in late May.

The division released one of the contracted airtankers in mid-July, by request of the U.S. Forest Service, for duty in the Lower 48. The second air tanker was released to the Lower 48 in August. Contract extensions allowed them to remain on duty until the end of August.

Soloy Helicopters provided three long term contracted type 2 helicopters located in Palmer, Fairbanks, and Soldotna. Rogers Helicopters provided one type 2 helicopter for Delta. Pathfinder Helicopters provided two type 2 helicopters for McGrath and Tok through a new contract. These provided platforms for both initial attack Helitack and logistical support. Total flight time was 364 hours on these aircraft.

On November 1, Chief Pilot Doug Burts, while on seasonal leave, accepted a 120-day assignment in New South Wales, Australia as a contracted Bird Dog pilot. The Aussies' Bird Dog planes are similar to state aircraft. The knowledge and experience Doug gains will add significantly to the state's program.

State Fire Support

State Logistics Center

The Logistics Center supports the division throughout the state and the year. In 2018, state personnel filled 1,270 overhead orders in Alaska. Support varies from helping fill resource needs for area offices to providing major support for large fires. The Logistics Center processes resource orders from the dispatch center in Fairbanks and may also send a dispatcher to an area dispatch when extra help is needed.

The Logistics Center also processes orders for state resources to the Lower 48. This year the first order filled was for Colorado in March and the last was for California in November. The state sent 529 skilled individuals and four firefighting aircraft to Lower 48 states in 2018. Many completed multiple assignments and filled 2,601 separate resource orders. These Alaskans participated on crews, teams, aircraft, and as individual resources. State firefighters provided support for 15 states and 238 incidents.



Smokey Bear stands watch over the Division of Forestry and Society of American Foresters fair booth at the Tanana Valley State Fair in Fairbanks. *Photo by Tim Mowry*

State Fire Warehouse

The State Fire Warehouse issued \$2.7 million in supplies and equipment to in-state incidents in 2018, a year with a lower than average number of fires. The division sent 16 warehouse employees to the Lower 48 as both single resources and incident management team members, to help during an extreme fire season.

Four employees left the warehouse this year: Mike Sterling retired after 15 seasons in the Fairbanks warehouse. Mike had a long career with Forestry, starting as a Fairbanks Area technician in 1988. Kinlee Hawkins resigned after 11 seasons in the Fairbanks warehouse. The vacancies were, fortunately, filled by two employees who had worked multiple seasons as emergency firefighters in the warehouse - Brandon Baca and Jessalynn Ragar.

Wayne Sanborn resigned in October after working 12 seasons in the Fairbanks warehouse and David Muth retired after 10 seasons in the Palmer warehouse. These two vacancies will be filled prior to the 2019 season.

Firefighter Property Program

The Firefighter Property Program (FPP), managed by the U.S. Forest Service, offers property to fire suppression, fire prevention, and related emergency service agencies registered with the State Fire Marshal. The Division of Forestry is charged with maintaining federal regulations related to the program, and fire departments are required to sign an agreement to cooperate with the division in order to participate.

The U.S. Forest Service has updated the FPP agreement, stating it will continue to manage the program, however, it requires each state to comply with new procedures, as follows:

- The state was given six months to prepare new agreements with fire departments;
- States must have an updated certified inventory that accurately describes all assigned property and its status;
- States must monitor FPP items that go to fire departments; and
- All FPP items must be placed into service within one year of acquisition or returned.

In 2018, DOF screened and acquired 12 items, with an estimated value of \$77,669. Items included a forklift, generator, tractor, and utility terrain vehicle (UTV). Fire departments in Palmer, Houston, and Butte acquired 28 items with an estimated value of \$62,334. The items included a UTV, generator, snowblower, chairs, and clothing.

Forestry also disposed of unclaimed items from the 2017 GSA auction at the Eagle River facilities. To make room for a paving project in the Fairbanks compound, warehouse employees collected and disposed of various unusable items including snow machines and ATVs.

Burning Statutes and Regulations Revamped

In a major victory for the Division of Forestry Wildland Fire and Aviation Program, the Alaska Legislature passed House Bill 355, the “Human Caused Wildfire Reduction Act,” during the 2018 legislative session. Sponsored by Rep. David Guttenberg, D-Fairbanks, HB 355 modernizes the division’s Wildland Fire Prevention and Investigation Program on state, municipal, and private lands under its protective jurisdiction. It is the first major revision to DOF’s wildland fire statutes and regulations since 1961. Governor Bill Walker signed the bill into law during a ceremony at the Division of Forestry’s initial attack operations base in Fairbanks on July 20.

As its name implies, the primary objective of HB 355 is to reduce the number of human-caused wildfires in the wildland urban interface. Currently, more than 80 percent of the wildland fires that occur on state protected lands are caused by humans as a result of unattended campfires, escaped brush piles, unextinguished land clearing fires, improper use of fireworks, and other fire-related activities that are easily preventable.

In addition to updating the state’s wildland fire statutes and regulations, HB 355 authorizes DOF to issue tickets, up to \$500, for non-criminal, minor burning violations. It also authorizes designated DOF personnel to cite individuals for more serious criminal violations of the revised forest protection laws. Citations may include cost recovery for a fire, extensive fines, and the possibility of jail time.

HB 355 officially took effect on January 1, 2019. The DOF Wildland Fire Prevention Office began drafting revised regulations and compliance components in the fall. Due to the extensive nature of the revisions and steps involved to finalize them, it is anticipated that these efforts will continue into the spring of 2019.

The DOF public information and prevention offices will embark on a major public education campaign prior to and during the 2019 wildland fire season to make the public, shareholders, and cooperators aware of HB 355. The slogan for the campaign is “Take the Time to LEARN before You Burn.” Once launched, the campaign will continue into future wildland fire seasons and DOF will monitor its efficacy and identify strengths and weakness of wildland fire prevention efforts with a focus on high-risk wildland urban interface areas.



Smokey Bear shakes hands with Gov. Bill Walker prior to the governor signing House Bill 355 at the initial attack fire operations base at the Division of Forestry in Fairbanks in July.
Photo by Tim Mowry



Flanked by Division of Forestry firefighters, Gov. Bill Walker signs House Bill 355 into law on the helibase at the Fairbanks Area Office on July 20. The “Human Caused Wildfire Reduction Act,” updated the Division of Forestry’s burning regulations for the first time since 1961.
Photo by Tim Mowry

National Fire Plan & Wildland Urban Interface Projects

The National Fire Plan was adopted in 2000 to provide grants to states, on a competitive basis, to reduce the threat of fire in wildland/urban interface areas. Funds are also available for wildfire prevention and education programs, mitigation, capacity building and homeowner and community assistance. The Division of Forestry continues to support educational and mitigation projects, which are described below. Funding comes to the division from the U.S. Forest Service.

2018 Projects

Initial Attack Firefighters

National Fire Plan funding continues to enable the division 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 governments, 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.

Hazard Fuel Removal – State Parks Land – Kenai Peninsula

During the fall field season, Forestry completed the final 25 acres of hand treatment on the State Parks-Scout Lake Fuels Project. Work consisted of hand felling, limbing, and thinning dense stands of spruce intermixed with hardwoods. Trees left are spaced 10 feet apart and were limbed up to a height of eight feet to prevent a ground fire from climbing into the tree crowns. Debris and slash created along public road corridors and in high public day use areas was chipped on-site to help reduce the potential of fire intensity. All dead, standing beetle-killed trees were hand felled, cut into pieces, and made available to the public for firewood.



Mat-Su Area Prevention Technician Robin Ace staffs the Division of Forestry booth at the Great Alaska Sportsman Show at Sullivan Arena in Anchorage in April. *Photo by Trever Fulton*

Statewide Prevention and Safe Burning

This information and education project developed statewide public service announcements on fire prevention, safe burning, and Firewise principles in conjunction with local fire departments, the Alaska Fire Chiefs Association, and the Alaska Wildland Fire Coordinating Group Prevention & Education Committee.

In 2018 Forestry:

- developed and produced 10 PSAs for television and radio;
- created campfire safety announcements for publication in newspapers across the state;
- procured home and outdoor show booth rental space in Anchorage, Kenai, Fairbanks and the Mat-Su Valley, where Forestry personnel offered information on Firewise principles, fire prevention and safe burning;
- Contracted for the creation of an Alaska Firewise website;
- Distributed notepads and grocery bags with safety messages and safe burning requirements;
- Developed No Drone Zone posters and stickers for use on social media templates;
- Purchased video and audio equipment to film Firewise, prevention, and safety videos in-house for use at public meetings on wildfire incidents.

McGrath, Takotna, Nikolai, Telida Hazardous Fuels

This project will mitigate hazardous fuels by treating a total of 196 acres in the communities of McGrath, Takotna, Nikolai, and Telida (MTNT) through a sub-award. A 95-acre shaded fuel break will be constructed in McGrath to protect utility corridors, homes, and businesses. A 63-acre shaded fuel break will be constructed around the village of Takotna to reduce the risk to homes, the school, businesses, and infrastructure. Ten acres will be treated in Telida to protect the historic Russian Orthodox Church, and a total of 28 acres will be treated around the dumps in McGrath, Takotna and Nikolai. Local and DOF resources will be used to complete the work. Due to staff vacancies at MTNT, the project has been delayed until 2019.

Caswell Fuel Mitigation Phase I

In 2018, the division reduced fuels along Hidden Hills Road in Caswell. The project was divided into three units of state and borough land within a pre-designated high fire risk zone with the added value of creating safe passage in and out of the community. DOF fire crews and wildland fire and resource technicians worked on the project in the spring and fall of 2018.

DOF cut and piled down and dead standing trees but left the thinning and limbing until fall to comply with spruce bark beetle mitigation efforts. Stems were scored and cut to firewood length to mitigate beetle habitat.

Crews treated 60 acres on state land in Unit 2 and the western portion of Unit 1, constructing about 260 piles. The technicians burned piles prepared by the hand crews, thinned and limbed trees that were left and ensured that all areas met treatment specifications.

DOF fire crews constructed approximately 180 piles in Unit 3 in the spring. In the fall, wildfire and resource technicians completed treatment on 12 acres of state land in Unit 3. Constructed an additional 50 piles, and burned a total of 230 piles (25,999 cubic ft.). The division will also provide outreach and Firewise education to residents on the benefits of creating defensible space. The project will resume in 2019.

Alaska Urban Interface Fire Education & Outreach Program

The division sub-awarded a grant to the Alaska Natural Resources and Outdoor Education (ANROE) Association to deliver 12 one-credit fire education and prevention courses. ANROE will develop online teaching resources for K-12 educators in wildland urban interface communities with increased risk of wildfire. ANROE delivered a “Wildfire and You in a Changing Climate” workshop for seven educators in Tok in May. Participants were offered one CEU credit from the University of Alaska Fairbanks. More workshops will be offered in 2019.

ANROE also converted fire background materials to an online audio and visual presentation for upload to the nation-wide Project Learning Tree website. The materials were supplemented with graphics and video about boreal forest ecology and fire.

Delta Area WUI Hazard Fuels Reduction & Homeowner Education

This project provides Firewise education and 50/50 cost share grants to homeowners to create defensible space by breaking up the continuity of fuels in high risk areas. Approximately 25 ownerships and 60 acres will be treated. The project began in 2018 and garnered so much interest that the cost share program reached its capacity. DOF will seek additional funding to meet the demand.

2019 Projects

The following eight Division of Forestry projects, totaling \$2.1 million, were recommended for funding by the 2019 Western WUI Competitive Grant. They are dependent on receipt of the U.S. Forest Service funding in Federal Fiscal Year 2019.



Cripple Creek shaded fuel break. Photo by Owen Smith

LEARN Before You Burn - \$253,300

House Bill 355, the Human-Caused Wildland Fire Reduction Act, passed in 2018, is the first major revision to Forestry's wildland fire and prevention program and statutes since 1961. It requires Forestry to kick off an extensive statewide education and information campaign to convey the updated and reorganized fire prevention laws and enforcement actions to the public and cooperating agencies. The act aims to reduce human-caused wildfires by 10 percent annually.

Activities may include:

- developing and launching 20 public service announcements;
- developing a smartphone app on safe burning practices;
- distributing printed Firewise and safe burning materials; and
- holding 22 workshops in high risk wildland/urban interface communities where humans are the leading cause of wildland fires.

Hazard Fuel Removal on Kenai Peninsula State Parks Land Phase II - \$300,000

Phase 1 mitigated 133 acres of hazard fuels in the Scout Lake Recreation Area. In Phase II, Forestry will mitigate fuel loading and lower overall fire risk on 275 acres of land with high to extreme hazard fuel loading on two Alaska State Parks units, Morgan's Landing and Funny River. These units border the communities of Sterling and Funny River. Technicians will hand-thin stands of black spruce but will leave larger, healthy spruce to provide shade, which can limit the introduction of bluejoint grass, a fire carrier in spring and fall. Firewood will be made available to the public free of charge. Interpretive signs will be constructed at each treatment site discussing the treatment measures being carried out. Firewise and "Ready, Set, Go" materials will be distributed in nearby neighborhoods and available at the treatment sites.

Sunset Fuel Break Phase I - \$300,000

This project will reduce fuel loading and create a shaded fuel break on about three miles of a proposed seven-mile fuel break through land managed by the state. The project will separate and protect the communities of Meadow Lakes and Houston from continuous fire-prone fuels. A Forestry crew will thin and remove vegetation and slash to create a 150- to 200-foot-wide shaded fuel break, incorporating a seismic line corridor. This will treat 60 acres of highly concentrated hazardous fuels, much of it recently beetle-killed. Upon completion, two kiosks will be constructed, providing information about the project and the benefits of fire adapted communities and shaded fuel breaks. DOF will provide educational outreach over the life of the project in partnership with Mat-Su Borough fire chiefs. Firewise literature will be distributed at public events and community council meetings and made available at fire stations.

Anderson Community Fire Resilient Landscape - \$300,000

This project will create 80 acres of shaded fuels breaks in fire prone areas in Anderson. Workshops, handouts, and mailings on Firewise principles, wildfire prevention, and shaded fuel break maintenance will help Anderson become a fire resilient/fire adaptive community. A Forestry fuels crew will hand thin 50 acres of black spruce, ladder fuels, brush, and hazardous trees on state land bordering residential and city properties, taking advantage of natural barriers where possible. The crew will also construct 30 acres of shaded fuel breaks between Anderson and Clear Air Force Base, providing increased protection for the base. Firewood will be made available to the public free of charge.

Tok Area WUI Project - \$300,000

Two fuel breaks will be established on 187 acres west of Tok to protect the community from the threat of catastrophic wildfire. In the Mackenzie South area, mechanized equipment will be used to clearcut patches to create a non-continuous fuel break on 125 acres. Precision hand cutting will be contracted out to a local wildfire crew to create a shaded fuel break on 62 acres along the eastern and southern boundaries of Eagle subdivision. The Alaska Gateway School District will provide the equipment and labor to remove, process, and transport approximately 5,000 tons of hazardous fuel for use in the school's biomass boiler.

Building Resilience: A Landscape Approach to Fire Prevention & Education in Alaska - \$260,000

This project will raise public awareness of wildfire risk, support activities that contribute to better prepared, more resilient fire adapted communities, and prevent human-caused fires in wildland-urban interface areas of the Matanuska Susitna valleys and rural communities in Southwest Alaska over a three-year period. Activities include rural community fire prevention and education for homeowners, outdoor recreationists, homebuilders, contractors, children and youth.

Matanuska-Susitna Borough Landowner Hazardous Fuels Reduction - \$273,000

Funding will be used to provide Firewise education and 50/50 cost share grants to homeowners in high risk WUI areas in the Matanuska-Susitna Borough to create defensible space. The dominant fuel types in the area are black and white spruce and beetle-killed white spruce. The project addresses a goal in the Mat-Su Borough Community Wildfire Protection Plan by reducing hazardous fuels on 130+ acres on about 130 ownerships.

Kenai Peninsula WUI Defensible Space and Education - \$113,825

This project will receive partial funding of the \$276,880 requested because the DOF reached the cap on what any western state can receive through the WUI grant process. The project will provide Firewise educational outreach and 50-50 landowner cost share assistance to reduce hazardous fuels on approximately 40 acres of private land on the Kenai Peninsula. The division will seek additional funding to meet the anticipated demand for the program.

Grants to Rural Fire Departments

The Volunteer Fire Assistance (VFA) program provides funds to increase firefighter safety, improve the firefighting capabilities of rural volunteer fire departments, and enhance protection in the wildland urban interface. The funds come through the U.S. Forest Service and are administered by the Division of Forestry.

In 2018 Forestry rolled out an online application system for applying for VFA awards, eliminating the need for paper applications. The system streamlines the application and award process for volunteer fire departments and the state.

The division received requests from 41 volunteer fire departments for equipment, training and prevention activities. 39 were funded for a total of \$277,123.43.

Fire Department	Amount Awarded
Anchor Point VFD	\$7,500.00
Bear Creek VFD	\$7,437.60
Bethel VFD	\$7,470.00
Butte VFD	\$6,674.40
Caswell Lakes VFD	\$5,225.05
Chena Gold Stream Fire & Rescue	\$7,371.00
Chignik Lagoon VFD	\$6,780.00
Craig VFD	\$7,500.00
Ester VFD	\$6,833.00
Fire Protection Area No. 1 (Bayside)	\$7,315.00
Gakona VFD	\$6,921.68
Girdwood Volunteer Fire & Rescue, Inc.	\$7,360.00
Gustavus VFD	\$7,312.00
Haines	\$7,500.00
Houston VFD	\$7,470.00
Kachemak Emergency Services	\$7,461.00
Kenai Fire Dept.	\$7,499.85
Kennicott/McCarthy VFD	\$7,371.00
Lowell Point VFD	\$7,492.50
Mentasta VFD	\$6,510.50
Nikiski VFD	\$6,718.14
Ninilchik Emerg. Services	\$5,395.50
Nondalton VFD	\$7,500.00
Northway VFD	\$7,211.02
Nunapitchuk VFD	\$7,319.02
Palmer Fire & Rescue	\$7,500.00
Rural Deltana VFD	\$7,500.00
Salcha Fire & Rescue	\$7,458.30
Seward FD	\$7,312.50
Sutton VFD	\$7,442.50
Talkeetna VFD	\$7,499.85
Tetlin VFD	\$6,030.00
Tok VFD	\$5,842.79
Tri-Valley VFD	\$7,259.00
Valdez VFD	\$6,750.00
West Lakes VFD	\$7,500.00
Willow VFD	\$7,449.25
Wrangell VFD	\$7,005.00
Grand Total	\$277,123.43

Fire Training Program

The division provides training to maintain a qualified and safe workforce, ready to respond to wildland fires and other emergencies as needed. Interagency courses are open to federal cooperators, structure fire departments, local governments, other state agencies, emergency firefighters, other geographic areas, and Canadian fire agencies.

National Level Training in Lower 48

Participation in Lower 48 training helped the division meet the need for advanced level training to prepare personnel to serve on Alaska's Incident Management Teams, train future instructors, and develop the Air Attack Program. Eighteen Division of Forestry employees and one emergency firefighter attended 15 courses for 544 hours. One student was nominated to the National Prescribed Fire Training Center for the January session.

Lower 48 courses that Alaskans attended in 2018:

- D-310, D-312 Support & Aviation Dispatcher
- S-341 GIS Specialist
- S-371 Helibase Manager
- S-404 Safety Officer
- S-420 Command & General Staff Exercise
- S- 520 Advanced Incident Management
- L-481 Advanced Leadership for Command & General Staff
- L-580 Leadership in Action
- FI-310 Wildland Fire Investigation
- Finance/Administration Unit Leader
- Air Service Manager
- Air Tactical Group Supervisor Academy
- National Prescribed Fire Training Center courses

In-State Training

Training is presented to meet national standard qualification requirements. This training is the backbone for developing qualified, experienced personnel to fight fires both in and out of Alaska. Training was offered to fire departments, local governments, Division of Forestry personnel, federal cooperators, emergency firefighters, Division of Homeland Security, Alaska Railroad, and the military. Statewide training emphasized training required by the National Wildfire Coordinating Group and the state's Flex Plan.

Structural fire departments across the state, including at JBER, assist the division in fire suppression in populated areas through cooperative agreements. These cooperators are a valuable source of trained, experienced firefighters.



Emergency firefighters complete the work capacity test (pack test) in Fairbanks in May. Firefighters must walk three miles with a 45-pound pack in 45 minutes or less to pass the test.
Photo by Tim Mowry

In-State Training (continued)

Forestry supports Native corporation crews through agreements with the Tanana Chiefs Conference (TCC) Chugachmiut Corporation, and the University of Alaska Fairbanks. Support consists of training, issuing red cards, tracking training and experience records, and assisting with mobilization. Administrators from TCC, Chugachmiut, and UAF attended training.

Most in-state training is provided through cooperation between DOF, Alaska Fire Service, U.S. Forest Service, National Park Service, U.S. Fish and Wildlife Service, fire departments, and local governments. Alaska contract instructors and Lower 48 subject matter expert instructors deliver Alaska Interagency Training. Also, DOF instructors share their years of experience and expertise to provide excellent training to students. Forestry Area Offices delivered many basic firefighter courses, fireline safety refreshers, fitness testing, pumps, saws, initial attack IC, squad boss, and followership to leadership courses.

A new edition of the 310-1 Wildland Fire Qualification System Guide was released in October. The new guide is a significant advancement towards accomplishing national goals (speed to certification) for wildland fire incident response capability and sustainability. <https://www.nwcg.gov/sites/default/files/publications/pms310-1.pdf>

Training Summary

- Fire Program Management course offered to current and future unit-level agency administrators and fire program managers. Extended attack incident commanders completed the required S-300 Type 3 IC course. DOF has 22 qualified IC Type 3 (DOF-16, EFF-6) and 10 trainees, who are instrumental in managing more complex Type 3 fires.
- DOF rotates offering the Alaska Engine Academy and IC Type 3 and Type 4 Simulations. 2018 was the year for the Alaska Engine Academy.
- Dispatch classes rotate every three years. Support Dispatcher, Dispatch Recorder, and ROSS were presented this year.
- An Alaska field guide reference and course for CFFDRS Fire Behavior Prediction System and Fire Weather Index System complemented the online S290 Intermediate Fire Behavior class.
- Aerial supervision training refreshed air tactical group supervisors, so they can lead air tankers into fire areas. Helicopter managers received refresher training to meet national certification requirements.
- Transportation of Hazardous Materials, a 3-day course, was presented in Fairbanks and McGrath.
- During Unmanned Aircraft Systems training, students learned to fly drones safely and capture imagery. This technology improves safety for firefighters. DOF carded six personnel as UAS Operators.
- Single resource bosses, unit leaders, incident commanders Type 3, division group supervisors, and command and general staff positions received valuable, cutting-edge training in fire line leadership skills

Flex Plan Training

The division created the Flex Plan Program to help retain skilled and experienced employees. As an incentive to remain in state employment, employees are able to complete training and gain experience to have their positions “flexed” to a higher step and pay range.

Flex Plan courses offered to Wildland Fire

Resource Technicians: L280 Followership to Leadership, S-211 Portable Pumps and Water Use, S-212 Wildland Fire Chain Saws, S-215 Fire Operations in the Wildland Urban Interface, L-380 Fireline Leadership, S-260 Incident Business Management, Alaska Engine Academy.

Flex Plan courses offered to Wildland Fire

Dispatcher: D-110 Dispatch Recorder, ROSS, Basic Firefighter, S-260 Incident Business Management, ICS-100 Basic ICS, ICS-200 ICS for Single Resources & IA Incidents, Interagency Aviation Training online, D-310 Support Dispatcher.

Online Training

Courses that offer the opportunity to complete a portion of the course work online and the remainder in instructor-led training save the division money. Online training provided additional fire suppression, ICS, and aviation courses to students. Additional information may be found at:

- <http://training.nwcg.gov/online.html>
Online NWCG courses
- <https://training.fema.gov/is/>
FEMA Independent Study (IS) courses
- <https://www.iat.gov/>
Interagency Aviation courses
- <https://nationalfiretraining.nwcg.gov>
National Wildland Fire Training

Alaska Statewide Courses

Class type	Courses	Instructors	Hours	Students
ICS	2	4	40	63
Suppression, includes UAS	25	58	580	358
Dispatch	3	5	64	36
Prevention	1	5	40	13
Leadership	3	10	104	58
Wilderness First Aid	1	0	24	19
General Mgmt. - MOI, IQS, M410, M581, Haz Mats	6	9	184	85
Prescribed Fire	1	1	40	20
Totals	42	92	1,076	652

Students Statewide

Class type	DOF	Local Gov't	EFF	Federal	Other	Total
ICS	23	4	4	31	1	63
Suppression (UAS)	170	4	38	193	6	411
Dispatch	11	0	2	23	0	36
Prevention	11	0	2	0	0	13
Leadership	26	0	5	24	3	58
General Mgmt.	34	7	1	26	3	71
Totals	273	15	52	297	13	652

Priority Trainee Program

The mission of the Priority Trainee Program is to develop an interagency workforce by sending trainees to incidents, helping them gain critical experience for fire management positions, and planning for succession of incident management teams. Currently, there is a shortage of qualified applicants to apply for fire management and incident management positions. It is important that the interagency wildland fire community continue to promote workforce development to fill future vacancies.

Statewide, 28 priority trainees had incident assignments. All geographic areas, nationally, participate in the Priority Trainee Program and this year, DOF had 78 applicants.

ICS Section	Assignments
Air Operations	2
Command	7
Dispatch	7
Logistics	6
Operations	6
Grand Total	28



Smokey Bear stands by a DOF display at the Native Youth Olympics Senior Games Celebration in April in Anchorage. The division's Mat-Su Area and other first responders were invited to pique interest of participants in wildland firefighting. *Photo by Division of Forestry*

Fire Medic Program

DOF maintains qualified fire medics to assist firefighters with medical care while on the fire line. In 2018, 48 fire medics received incident qualification cards "red cards". DOF, through cooperative agreements with the Alaska Fire Service, maintains medical kits ready to be mobilized with fire medics. Medical training is provided annually to meet certification requirements. Fire medics are certified as basic EMTs, advanced EMTs, and paramedics.

Advanced Wildland Firefighter Academy

The Division of Forestry hosted the Alaska Advanced Wildland Firefighter Academy in partnerships with the Kuskokwim Corporation, Tanana Chiefs Conference, Association of Village Council Presidents, and Chugachmiut. DOF contracted for the lead instructor and lead field exercise coordinator; the Mat-Su, Southwest, and Fairbanks area offices provided other instructors. The academy was held at the Forestry office in McGrath in May.

Thirty students were selected to attend the academy with 15 more put on a wait list. Ultimately, 29 students attended and 28 graduated. Graduates had 13 initial attack assignments, 21 fire assignments in Alaska, and 87 in the Lower 48. They attended an additional 275 live or online classes.

Academy Short-term Non-Perm Positions

The Division of Forestry funded 15 short-term, non-perm positions for a total of 20 work days each this year. Most employees went to an Initial Attack Wildland Fire Module in McGrath or Copper River as a Wildland Fire & Resource Technician I, II, or III, and one as an Admin Assistant I. Three employees worked on a tanker base in Palmer, Tok or McGrath, each as a Wildland Fire & Resource Technician I.

In 2018, Alaska Crew Boss Academy graduates filled two positions, Advanced Academy graduates filled three positions, and four graduates of the previous academy filled positions. Short-term non-perm employees participated in 40 initial attack assignments, eight fire assignments in Alaska, and 33 in the Lower 48. They participated in 55 live or online classes.

The state has hired 19 short-term non-perm employees to permanent positions since 2013 and 16 are still employed.

Employee Recognition

Dean Brown Retires After Long State Career

Dean Brown retired on April 30, after serving the State of Alaska in a variety of roles for 37 years; 28 of those years were spent in the Division of Forestry. She worked for four state foresters and was acting state forester for significant periods.

She began work for DNR in 1978 as a geologist in the Division of Oil and Gas. She went on to work as a geologist in Mining, a hydrogeologist in Water, as the District Water Officer, and District Lands Officer in Southcentral Region. She moved up to Chief of Water Management statewide and then Deputy and/or Acting Director of Agriculture for six years until being laid off in the 1987 statewide recession. Dean rejoined state service in 1989 as a non-perm NRM I for Mining, Land and Water Management and was hired permanently as Northern Region Manager for Lands in Fairbanks. In 1990, Dean became Forestry's Deputy Director of Operations, working with Deputy Director George Hollett.

Dean was in the thick of many of the milestones of DNR, including oil and gas development, land disposals, the Beirne initiative, navigability determinations, native claims and allotments, the sea lift from Prudhoe Bay, closing the Deadhorse Store, the Delta barley projects, Point McKenzie, the Miller's Reach Fire and the record fire years of 2004 and 2015.

She was the Incident Commander for the 2006 National Association of State Foresters' annual meeting in Anchorage, for which she and her team received numerous accolades. She was awarded a medal by the Department of State Foreign Service Institute for assisting their executive leadership program. She served on the Statewide Emergency Response Commission beginning in 1996 and joined AWFCG in 1994 with four terms as chair. She frequently acted for DNR on the Governor's Disaster Policy Cabinet, was in Who's Who in American Woman, and in Who's Who in America.

Her career included challenging and interesting work – field construction engineer for Fluor on the Trans-Alaska Pipeline, Placer Dome geologist on Rock Creek, consulting geologist, Amax Coal Company geologist, natural resource economics adjunct professor at Alaska Pacific University, natural science and meteorology adjunct professor at Indiana University-Purdue, and other jobs including at a flight school and at Wien Alaska Airlines, as a union carpenter on Bradley Lake Dam, a soils lab analyst, and a thoroughbred farm caretaker.

Born and raised in Alaska, Dean comes from a pioneer Alaska family, beginning with a prospector in the Brooks Range in 1887 who joined the Gold Rush to Nome in 1901. Her family stories are part of Alaska's history in mining, aviation, and business from the gold rush, through pipeline construction and oil development, to the present day.

Dean has eclectic interests. She is an artist, photographer, sometimes pilot, horsewoman, carpenter, bibliophile, late blooming pianist, and itinerant traveler. Her trip to Africa in 1991 started her thinking of retirement (but not very seriously, evidently) and was followed in 2006 by a month in Ecuador and Peru where she visited Macchu Picchu, the Galapagos, and the Avenue of Volcanoes. She traveled to Jordan and Egypt in 2010. She also visited England, venturing through Scotland to Loch Ness. As part of an international group of 50, Dean went on the Geological Society of America 150th anniversary expedition of the Antarctic Peninsula, including the Falklands, South Georgia, and Patagonia. A year later she sailed to Antarctica again – this time to see the base camps Antarctic explorers left after their quests for the South Pole, and then on to New Zealand.

In the fall of 2016 Dean had a serious accident when her beloved Saturn sports car and a moose collided on her daily commute to work. She faced a long recovery and could have retired, but instead, set about healing, through surgeries and physical therapy while continuing her work with Forestry. Her strong commitment to the staff and mission of the division were very important to her and a key part of the recovery process. She returned to full form and retired on her terms. She faced this tough situation with grace and commitment, we all were pleased with the outcome.

Dean has traveled extensively, in Alaska and in Africa in her first months of retirement and is, no doubt, looking toward a future with many more adventures. We all wish her the best!



Dean Brown and DNR Commissioner Andy Mack at Dean's retirement party in April. Photo by Elizabeth Bluemink

Firefighters Earn DNR Denali Peak Performance Award

Six Division of Forestry firefighters received a 2018 Denali Peak Performance Award for Crisis Response from the Department of Natural Resources. The firefighters were working on a fire in rural Alaska in 2017 when they rescued two children from drowning in the Kuskokwim River.

Heather Hanes, Dakota Hermanns, Matt Jones, Terry Solomon, Owen Solomon and Kris Vanderpool were honored for their life-saving efforts. Owen Solomon is a Wildland Fire and Resource Technician for Forestry's Fairbanks Area office while Hanes, Hermanns, Jones, Terry Solomon and Vanderpool are part of DOF's Emergency Firefighting (EFF) program. Two federal employees working for the Alaska Fire Service, Brandon Boyers and Tracy Nicholson, assisted in the rescue but were not eligible for the award because they are not state employees.

The firefighters were working on the Bell Creek Fire near the village of Crooked Creek in June 2017 when the incident occurred. Two local children had waded into the river without life jackets and stepped off a ledge that left them in water over their heads. Neither of the boys, ages 10 and 11, could swim.

Jones, the incident commander for the fire, was alerted to the situation by a local resident and raced to the scene on a four-wheeler. When he arrived, Owen Solomon was already in the water helping Kris Vanderpool, a local resident working as an EFF boat operator, to rescue one of the boys. Vanderpool had reached one of the boys but was unable to reach out to Solomon with the boy in his grasp. Solomon called to fellow firefighter Hermanns, who entered the water and grabbed Solomon's arm, allowing him to reach out to Vanderpool and help pull both he and the boy to safety. Meanwhile, Jones and Boyers entered the water to pull the second boy to safety.

Both boys had gone underwater multiple times and ingested water before being rescued. Terry Solomon and Hanes, who were working as EFF Emergency Medical Technicians on the fire, cared for the boys while dispatchers in McGrath arranged for a medevac flight. The boys still had fluid in their lungs, causing the medics to be concerned about the risk of secondary drowning. The boys were given dry clothes and were placed in heated pickup trucks to warm up. Nicholson helped comfort the boys following the harrowing incident.

The medics also tended to the firefighters who had gone into the water and were experiencing mild hypothermia. Even as he was shivering uncontrollably, Jones had the wherewithal to call the dispatch center to report the incident and order a medevac flight from Bethel for the boys, who were flown to the hospital in Bethel to be evaluated.

Seth Ross, assistant fire management officer for the Division of Forestry's McGrath Area office, said the actions of the firefighters, medics, and dispatch staff are an example of the expertise and attitudes displayed by first responders during wildfires and in everyday life.

"The quick thinking, leadership, and selfless efforts displayed by our firefighters, dispatchers, and line medics helped to save the lives of two Alaskan kids," said Ross. "Our firefighters are bringing it to the table every day to protect lives and communities from wildfires across the state and also stepping up and delivering like heroes without hesitation in these life-saving emergencies in rural Alaska."

The individuals who were honored were working on wildfires in the Lower 48 when Governor Bill Walker stopped by the Fairbanks Forestry office in September 2018 to present their awards. DOF Wildland Fire and Aviation Program Manager Tom Kurth accepted the awards on their behalf and certificates were mailed to the honorees.



(L to R) Dakota Hermanns, Kris Vanderpool, Brandon Boyers, Matt Jones, Terry Solomon, Heather Hanes, Tracy Nicholson and Owen Solomon. The state employees received the Denali Performance Award. BLM employees, Boyers and Nicholson were not eligible for the state award.
Photo by Tim Mowry

2018 Actuals*NOTE: Dollar figures are in thousands (e.g., \$27.5 is \$27,500.00)*

Funding Sources	Forest Mgmt & Development	Fire Preparedness	Fire Activity	Totals
General Funds	\$2,280.9	\$15,567.3	\$13,867.3	\$31,715.5
Federal Funds	\$3,613.3	\$1,228.6	\$21,847.3	\$26,689.2
Capital Improvement	261.3	\$853.7	-	\$1,115.0
Interagency Receipts	\$365.5	\$18.9	-	\$384.3
Timber Receipts	\$759.8	-	-	\$759.8
Other (SDPR)	\$9.3	-	\$1,415.5	\$1,424.8
TOTALS	\$7,290.1	\$17,668.5	\$37,130.1	\$62,088.7

POSITIONS

Permanent Full-Time	29	29	-	58
Permanent Part-Time /Seasonal	4	169	-	173
Non Permanent	5	-	-	5

Forest Management & Development Component

Renewable Resource Development & Sales	Coastal Region	Northern Region	Statewide	Totals
Board of Forestry	-	-	\$16.3	\$16.3
Forest Practices			\$321.1	\$321.1
Forest Management	\$893.6	\$669.0	\$1,357.8	\$2,920.4
Interagency Receipts	\$32.4	\$24.2	\$398.7	\$455.2
Stat. Desig. Program Receipts (SDPR)	\$39.6	-	\$0.0	\$39.6
Federal Cooperative Forestry Assistance	-	-	\$2,813.7	\$2,813.7
Capital Improvement Receipts (Other)	\$0.0	\$0.0	\$0.0	\$0.0
<i>Subtotals</i>	\$965.6	\$693.2	\$4,907.5	\$6,566.3
Director's Office	-	-	\$723.8	\$723.8
Component Totals	\$965.6	\$693.2	\$5,631.3	\$7,290.1

Fire Suppression Preparedness Component

	Coastal Region	Northern Region	Statewide	Totals
Preparedness	\$3,340.7	\$2,057.5	\$10,565.7	\$15,963.8
Interagency Receipts	\$42.7	\$12.2	\$87.4	\$142.3
Federal Cooperative Initial Attack	\$348.7	\$136.4	\$1,077.3	\$1,562.4
Capital Improvement Receipts (Other)		\$0.0	\$0.0	\$0.0
Component Totals	\$3,732.1	\$2,206.1	\$11,730.3	\$17,668.5

2019 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	\$2,426.1	\$18,015.3	\$5,241.0	\$25,682.4
Federal Funds	\$3,476.9	\$1,515.6	\$11,960.4 *	\$16,952.9
Capital Improvement			-	
Receipts (Fed, GF, & SDPR)	\$261.7	\$565.9	-	\$827.6
Interagency Receipts	\$600.1	\$402.3	-	\$1,002.4
Timber Receipts	\$1,005.6	-	-	\$1,005.6
Other (SDPR)	\$30.0	-	\$1,500.0	\$1,530.0
TOTALS	\$7,800.4	\$20,499.1	\$18,701.4	\$47,000.9

POSITIONS

Permanent Full-Time	29	29	-	58
Permanent Part-Time /Seasonal	4	169	-	173
Non-Permanent	5	-	-	5

FOREST MANAGEMENT & DEVELOPMENT COMPONENT

RENEWABLE RESOURCE DEVELOPMENT & SALES	COASTAL REGION	NORTHERN REGION	STATEWIDE	TOTALS
Board of Forestry	-	-	\$14.7	\$14.7
Forest Practices	-	-	\$232.2	\$232.2
Forest Management	\$1,114.9	\$583.9	\$1,318.8	\$3,017.6
Forest Inventory and Analysis	-	-	\$1,130.1	\$1,130.1
Tongass Young Growth			\$1,130.1	\$1,130.1
Interagency Receipts	-	-	\$204.8	\$204.8
Stat. Desig. Program Receipts (SDPR)	-	-	\$5.1	\$5.1
Federal Cooperative Forestry Assistance	-	-	1,283.60	\$1,283.6
Capital Improvement Receipts (Other)	-	-	268.50	\$268.5
<i>Subtotals</i>	\$1,114.9	\$583.9	\$5,587.9	\$7,286.7
Director's Office	-	-	\$513.7	\$513.7
COMPONENT TOTALS	\$1,114.9	\$583.9	\$6,101.6	\$7,800.4

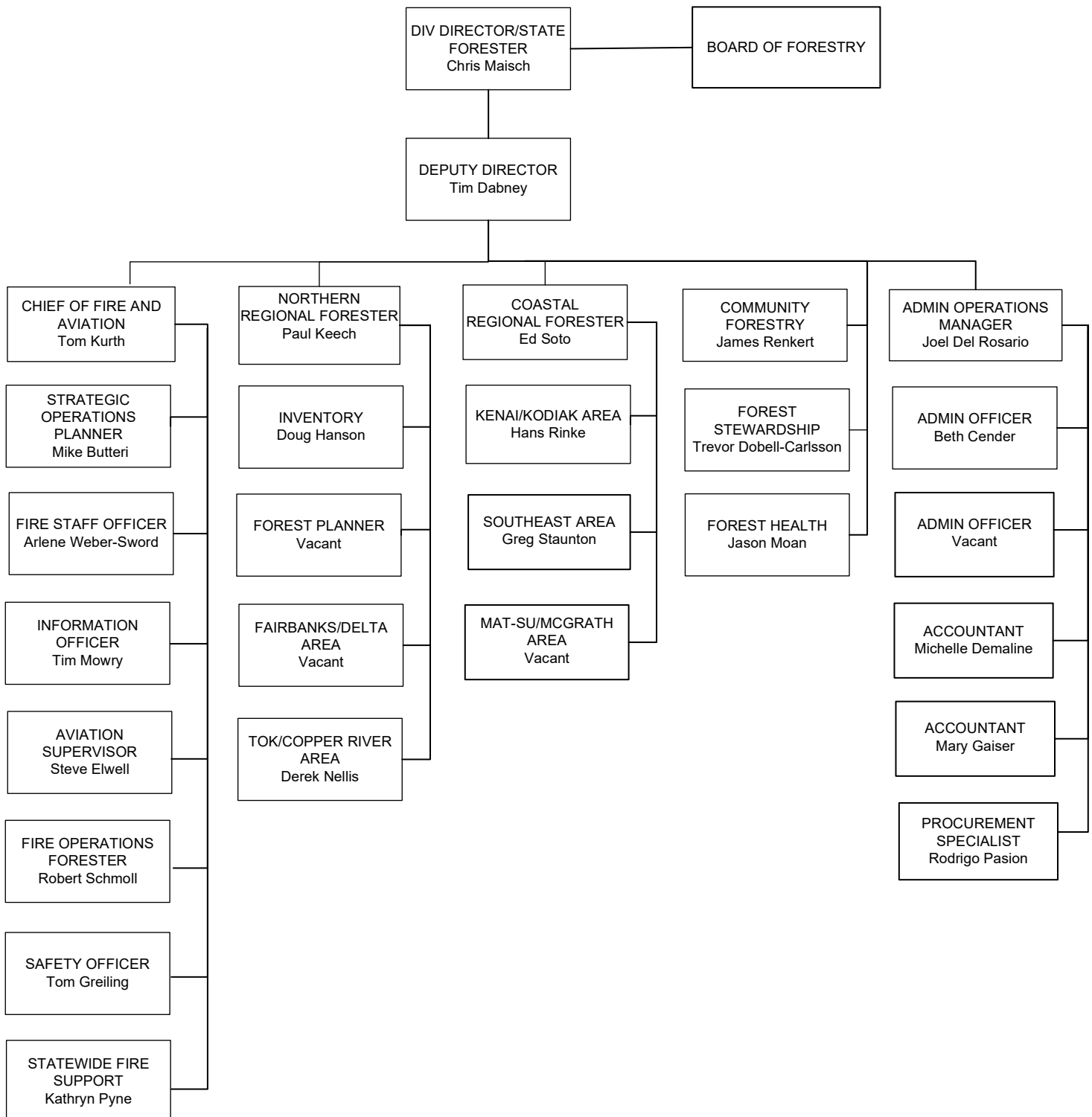
FIRE SUPPRESSION PREPAREDNESS COMPONENT

	COASTAL REGION	NORTHERN REGION	STATEWIDE	TOTALS
Preparedness	\$4,512.9	\$3,113.6	\$9,865.4	\$17,491.9
Interagency Receipts	-	-	\$437.8	\$437.8
Federal Cooperative Forestry Assistance	-	-	\$1,635.3	\$1,635.3
Capital Improvement Receipts (Other)	-	-	\$934.1	\$934.1
COMPONENT TOTALS	\$4,512.9	\$3,113.6	\$12,872.6	\$20,499.1

Alaska Division of Forestry

Organizational Chart

December 2018



Division of Forestry Directory – December 2018

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

State Forester's Office

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

Deputy State Forester

Tim Dabney, 269-8476

Admin. Services Manager

Joel Del Rosario, 269-8477

Community Forestry Program

Jim Renkert, 269-8465

Forest Health & Protection

(Insects & Disease)

Jason Moan, 269-8460

Fairbanks Office

3700 Airport Way
Fairbanks, Alaska 99709-4699

State Forester

John "Chris" Maisch, 451-2666

Chief of Fire and Aviation

Tom Kurth, 451-2675

Forest Planning

Vacant

Forest Stewardship Program

(Landowner Assistance)

101 Airport Road
Palmer, Alaska 99645
Trevor DoBell-Carlsson,
761-6309 fax 761-6201

State Fire Operations

P.O. Box 35005
Ft. Wainwright, Alaska 99703
356-5850 fax 356-5855

Operations Forester

Robert Schmoll, 356-5850
AICC Logistics, 356-5645

Intelligence

Gabriella Branson, 356-5671

AICC Coordinator

Vacant, 356-5682

Strategic Operations Planner

Mike Butteri, 356-5858
Fire Behavior, 356-5673

Fire Training & Prevention, 269-8441
550 West Seventh Avenue, Suite 1450
Anchorage, Alaska 99501-3566

State Fire Support

3700 Airport Way
Fairbanks, Alaska 99709-4699
451-2608 fax 451-2763

Support Forester

Kathryn Pyne, 451-2608
State Logistics, 451-2680
State Fire Warehouse, 451-2640

Aviation Program

101 Airport Road
Palmer, Alaska 99645
761-6270 fax 761-6273
Steve Elwell, Aviation Manager,
761-6271
Coastal Aviation Mgmt, 761-6231
Air Attack, 761-6280

Regional Forester - Coastal

101 Airport Road
Palmer, Alaska 99645
761-6200
Ed Soto, Regional Forester

Regional Forester – Northern

3700 Airport Way
Fairbanks, Alaska 99709-4699
451-2660 fax 451-2690
Paul Keech, Regional Forester

Fairbanks-Delta Area

3700 Airport Way
Fairbanks, Alaska 99709-4699
451-2600 fax 458-6895
Fire line, 451-2626
Fire Operations fax 451-2633
Lead Dispatcher, 451-2620
Logistics, 451-2627
Dispatch, 451-2623

Delta Office

P.O. Box 1149
Delta Junction, Alaska 99737
(Mi. 267.5 Richardson Hwy)
895-4225 fax 895-2125
Mike Goyette, Fire Mgmt. Officer,
895-2103
Fire line, 895-4227

Tok-Copper River Area

Box 10
Tok, Alaska 99780
(Mile 123.9 Tok Cutoff)
883-1400 fax 883-5135
Derek Nellis, Area Forester, 883-1403
Fire line, 883-3473

Valdez/Copper River Office

P.O. Box 185
Glennallen, Alaska 99588
(Mi. 110 Richardson Hwy.)
822-5534 fax 822-8600
Mike Trimmer, Fire Mgmt.
Officer

Mat-Su/Southwest Area Office

101 Airport Road
Palmer, Alaska 99645
761-6300, fax 761-6319
Area Forester
761-6301
Dispatch, 761-6220
Fire line, 761-6311
Burn Permit, 761-6312

Kenai-Kodiak Area Office

42499 Sterling Highway
Soldotna, Alaska 99669
(Mi. 92.5 Sterling Hwy)
260-4200 fax 260-4205
Hans Rinke, Area Forester, 260-4210
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

Southwest Area Office (Seasonal)

Box 130
McGrath, Alaska 99627
524-3010 fax 524-3932
Norm McDonald, Fire Mgmt. Officer,
761-6302
Fire line, 524-3366

The mission of the Division of Forestry is to proudly serve Alaskans through forest management and wildland fire protection.



Cover: White spruce killed by spruce bark beetles in Denali State Park. Photo by Forest Health Program Manager Jason Moan