

Alaska Department of Natural Resources

# Division of Forestry

Annual Report 2017



Alaska Department of  
**NATURAL  
RESOURCES**





# Alaska Department of Natural Resources

## Division of Forestry

### Annual Report 2017

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

Fairbanks North Star Borough Mayor Karl Kassel talks to students at Spruce Tree Montessori School during a tree planting ceremony on Arbor Day.

Photo by Tim Mowry





# 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;*

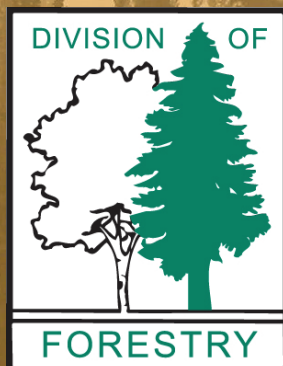
*Manages the Southeast, Haines, and Tanana Valley state forests, which cover a total of 2.1 million acres;*

*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 located in Anchorage. The division also has two regional offices and nine area offices responsible for program support and field work. As of December 2017, the division had 59 full-time, 172 part-time/seasonal, and seven non-permanent positions.





## State Forester Comments

I'm taking a deep breath as I write this year's annual forward, because our past year has been so busy. It was a year full of challenges and successes, something I've come to expect because of the variety and breadth of work our Division undertakes each day. A significant challenge is recruiting, training and retaining a workforce that is up to the tasks of protecting life and property from wildland fire and managing the state's forest resources. Fiscal and staff capacity has been reduced in recent years as the state addresses budget shortfalls, and turnover in the workforce seems constant. There are many reasons for this situation. Retirements and better opportunities are two key factors and the Divisions' management team is working to address items within our control. The new strategic plan focuses on this issue with a succession plan for leadership throughout the ranks of the organization. I've come to realize that change, sometimes at a rapid pace, is the new normal and our ability to adapt and find creative ways to keep the organization moving forward is the key to our success.

The successes have once again been significant and at many different levels within the organization. A new initiative, in partnership with the U.S. Forest Service (USFS), undertook a large timber sale project utilizing a new tool called the Good Neighbor Authority (GNA). A 30 million board foot timber sale was prepared and sold by the state on Tongass National Forest lands utilizing state staff and methodologies. Simultaneously, Area Forester Greg Staunton and his staff completed a major road project on Gravina Island to access the southeast state forest and continued to offer state timber sales as part of a focused effort to support the timber industry in southeast.


The Division is working with the USFS and other partner organizations to complete a forest inventory on the young and old growth forest stands in the Tongass. Roy Josephson and Doug Hanson are key leaders in this effort and the inventory and economic data being produced is critical to the future of the timber industry in southeast. While the field work is important, there are several policy issues that need to be addressed in the current Tongass Land Management Plan in addition to restoring an exemption to the 2001 Roadless Rule to the region. This latter item affects not only the timber sector, but energy, mineral, and community interests.

The wildland fire program has continued to perform well. Despite a below average year in acres burned in Alaska, our state resources were needed throughout the United States, especially in the west which had another very active fire season. The Alaska Type I Incident Management Team (IMT) under the leadership of Incident Commander (IC) Tom Kurth was utilized at a record breaking pace and deployed for 51 days this year, including once to Montana and twice to Oregon. Staff also assisted in all-risk incidents and were part of the hurricane response efforts in Puerto Rico. This mobilization of resources included our rural Emergency Fire Fighter (EFF) crews. Six jetloads were sent to assignments in the Lower-48. The utilization of Alaska resources returns significant fiscal benefits to the state in terms of payroll and employment opportunities for residents, while keeping our crews and teams active during a slower Alaskan season.

The State and Private Forestry programs administered by the Division have continued to keep private landowners abreast of a developing forest health situation in southcentral Alaska concerning an escalating outbreak of spruce bark beetles. Jason Moan, the Division's entomologist, conducted four public meetings and other outreach activities, including aerial surveys of the regions' forests. These efforts have informed landowners of the threat and actions they can take to protect high value trees. His efforts work in conjunction with our wildland fire prevention program and the Firewise curriculum that is taught to home and business owners to reduce the risk from wildfire. Increased fuel buildup due to tree mortality from the bark beetle is a concern and our landowner assistance programs focus their efforts on education and actions to deal with the threat.

In the end, the employees of the Division make the difference. As leadership opportunities occur, individuals have stepped forward to fill the ranks. Norm McDonald and Ed Sanford are good examples, stepping forward to become Type II IC Trainees. Norm completed his training this past year and is now the IC for one of the Alaskan Type II IMTs. Nate Skinner stepped into the Communications position and Tom Greiling into the Safety Officer slot. K.T. Pyne filled the Statewide Logistics Forester position and Ed Soto stepped into the Matsu/McGrath Area Forester role. Many others have filled-in as "acting" while the recruitment and hiring process unfolds.

In summary, another year has passed and friends and colleagues have changed with that passage of time. One constant is time passing and the second is change. As an organization and as individuals, we face a complex and challenging world, but through teamwork, communication and innovation the Division and you can make a difference. To all our staff, thank you for your efforts and dedication. My foreword is too brief a forum to discuss the full range of work and accomplishments in the Division, but I want you to know you are all appreciated and respected for your efforts.



-John "Chris" Maisch  
State Forester

# 2017 at a Glance

## Forest Resources & Practices

- Forest operations remained low on non-state land. Activity increased somewhat in Southern Southeast and declined in the Kodiak-Afognak archipelago. Given the low level of forest activity, DOF provided sufficient field presence to ensure that the FRPA was effective in protecting water quality and fish habitat.
- Southern Southeast forest practices inspections focused on state operations this year; next year there will be renewed emphasis on non-state operations if activity increases.
- Compliance monitoring scores remain strong and increased slightly in all three regions. Region III scores averaged 5.0 – the first perfect record since monitoring began in 2003.
- DOF sold 11.3 million board feet of timber, an increase from last year, particularly in Southeast.
- The forest practices reforestation regulation amendments went into effect in March.
- The division reviewed 27 new harvest Detailed Plans of Operation, seven new reforestation/timber stand improvement DPOs, two new road work DPOs, and 26 renewals for private, municipal, and state trust lands. New DPOs covered 4,613 acres and two miles of road.
- DOF conducted 17 inspections (including variation inspections) on private, municipal and trust land and 125 inspections on state timber sales.



State Forester Chris Maisch, a long-time ski patrol member, skiing in new powder through the trees in Fairbanks.

*Photo by Klara Maisch*

## ALASKA STATE FORESTERS

Earl Plaurde  
October 1959 to June 1968

William Sacke  
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



## Resource Management & Development

- The division held 38 timber sales with a volume of 11.3 million board feet (MMBF) on 1,820 acres, and issued 1,070 personal use permits. Timber program revenue totaled \$960,411.
- DOF continues three major cooperative efforts with the U.S. Forest Service: Forest Inventory and Analysis in Interior Alaska, a cost-share agreement covering young-growth inventory and work force development in Southeast Alaska, and a Good Neighbor Authority agreement to provide forest management services on national forest land. The 29 MMBF young-growth timber sale, which sold for \$2.6 million in federal revenue on Kosciusko Island, was the first sale sold under the agreement in the Tongass National Forest.
- The \$1.6 million U.S. Forest Service grant for the Forest Inventory and Analysis Program allowed the division to establish 240 plots in the Fairbanks and Delta areas. DOF will install plots in the Tok area in 2018.
- Thirty Southeast residents applied for the second Forestry Academy that was held on Prince of Wales Island in March. DOF and USFS staff trained 12 people to work on inventories. Nine of the 12 graduates were employed within one month of completing the course. As of the end of 2017, one graduate was in a full-time position with Sealaska Timber and two were working term positions with the USFS in Thorne Bay.
- Community Forestry staff continued to implement two U.S. Forest Service Landscape Scale Restoration grants: Fish Need a Forest: Restoring Campbell Creek Using Green Infrastructure, in Anchorage and Using Green Infrastructure to Restore the Chena River Watershed in Fairbanks.
- Staff conducted a tree survey and assessment at Folker Park in Anchorage and made recommendations to address spruce bark beetle infested trees and overall forest health.
- DOF gave Community Forestry grants to seven organizations in five communities to help develop community orchards and food forests;
- The Community Forestry Program provided training for 144 people from 16 communities.
- The division monitored for invasive bark beetles and woodborers at 13 high risk sites throughout the state.
- The division and U.S. Forest Service mapped nearly 845,000 acres of forest damage on the 27.5 million acres surveyed. The acreage of damage observed was 12 percent lower overall than in 2016, though acreage of spruce beetle-caused mortality rose substantially.
- One Alaska Native corporation completed a forest stewardship plan covering 362,000 acres, and three other Native corporations were awarded grants to begin forest stewardship plans.
- Stewardship plan development began on Alaska Mental Health Trust land.
- Thirty-five forest stewardship plans were completed by individual forest landowners covering 1,494 acres.



State Foresters in Washington, DC.  
(L-R) Mike Lester, Colorado; Bill Crapser, Wyoming; Chris Maisch, Alaska.



Anchorage Youth Employment in Parks crew stabilizes and restores banks of Campbell Creek in Anchorage. The crew also installed 50 feet of elevated, light-penetrating boardwalk for fishing access.  
*Photo by Stephen Nickel*

## Fire Suppression & Prevention

- Alaska experienced a second straight below-average fire season in 2017. A total of 362 fires burned 653,148 acres, approximately half the acres that burn in an average fire season.
- Two hundred fires were caused by human activity and the remaining 162 were started by lightning.
- In DOF protection areas, 170 fires burned 81,345 acres, 12 percent of the total acreage burned. In Bureau of Land Management Alaska Fire Service protection areas, 169 fires burned 571,557 acres.
- The largest fire of the season, the Campbell River Fire, burned 93,520 acres in the Upper Yukon.
- The light fire season in Alaska allowed the state to support western states experiencing a long and intense season. Alaska firefighters worked in 10 states, peaking with 740 personnel outside in August. Many worked long into October.
- The payroll for Emergency Firefighter Crews totaled \$5.25 million in 2017.
- The Alaska Type 1 Interagency Incident Management Team deployed three times, the first season that the team was deployed multiple times outside of Alaska.



Smokey Bear looms over the Division of Forestry and Society of American Foresters log cabin at the Tanana Valley State Fair.

*Photo by Jim Schwarber*

- DOF launched a drone program in 2017 with the purchase of six drones. Two staff members achieved drone pilot certification. Drones provide live video and GPS location data from the fireline to help clarify fire perimeters. They allow firefighters to scout line, look for favorable pathways, and avoid hazards.
- DOF and the Dept. of Fish & Game conducted an 800-acre prescribed fire in the Delta Junction Bison Range to improve habitat for bison, moose, and sharp-tailed grouse.
- The Aviation Program completed its 15th year with no accidents or incidents.
- DOF acquired equipment from the federal Fire Fighter Property Program valued at \$391,000, and more than \$500,000 in items from the GSA Store at a cost of \$13,000.
- The Volunteer Fire Assistance Program provided a total of \$242,680 to 35 rural fire departments.
- National Fire Plan grants funded projects to reduce the threat of fire to communities, and for wildfire prevention and education programs, mitigation, capacity building, and homeowner and community assistance. Projects were funded in the Mat-Su Valley, Kenai Peninsula, McGrath, Takotna, Nikolai, Telida, Caswell, Delta and for statewide outreach and education.
- DOF offered 42 courses to 748 students to maintain a qualified and safe workforce, ready to respond to wildland fires and other emergencies.
- A priority trainee program is helping to reduce a shortage of qualified applicants for fire and incident management positions. In 2017, 281 trainees were assigned to incidents that provided experience and training in fields such as air operations, dispatch, logistics, and finance.
- The Alaska Department of Labor funded a pilot program for 18 short-term non-permanent positions in 2017, with six-person groups based in the Mat-Su, McGrath, and Copper River. The positions accepted 21 fire assignments in Alaska and 36 in the Lower 48.



# Resource Management & Development

## Forest Practices Implementation on Private, Municipal, & Trust Land

### Notifications and Inspections

In 2017, DOF received and reviewed 27 new harvest Detailed Plans of Operation (DPO), seven new reforestation/timber stand improvement DPOs, two new road work DPOs, no voluntary plans of operations, and 26 renewals for private, municipal, and state trust lands. New DPOs covered 4,613 acres and two miles of road. The division conducted 17 inspections (including variation inspections) on private, municipal and trust land and 125 inspections on state timber sales.

Overall, the number and acreage of new DPOs remained at the low level of recent years. The Southeast Area saw some increase in forest practices activity on private land due to new Sealaska operations on their recently-acquired land selections, and University timber sale activity in Edna Bay. Southeast inspections on state land increased markedly to cover the Coffman Cove sale, which adjoins a municipal watershed on Prince of Wales Island, and significant new road construction on Gravina Island. Operations on non-state land were in lower-risk areas, and the number of inspections decreased. Notifications and acreage notified decreased in the Kodiak-Afognak area; inspections decreased accordingly. There was little Forest Resources and Practices Act (FRPA) activity on non-state land in other areas.

*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 two requests for variations for harvesting in riparian buffers and approved 48 of the 56 trees requested.

### Enforcement

DOF issued one notice of violation in 2017. Thirty-one trees were cut in the riparian area of a known anadromous stream, including 24 trees within 25 feet of the stream. The case was settled with a fine of \$17,000. No directives or stop work orders were issued in 2017.

### Effectiveness monitoring and road condition surveys

DOF works with agencies and affected interests to prioritize effectiveness monitoring and research needs, and 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 the DOF to come up with the matching funds that are commonly required. No new effectiveness monitoring projects were undertaken in 2017.



Road construction at Coffman Cove Timber Sale.  
Photo by Greg Staunton

### **Road condition surveys and remediation**

DOF, with the assistance of the Alaska Department of Fish & Game (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. Based on the survey results, this road will be closed in 2018, with crossing structures removed and natural drainage re-established.

Design work was completed for a culvert replacement in Tyonek based on a 2012 road condition survey. With assistance from the Sustainable Salmon Fund (SSF), this culvert will be replaced in 2018. Also in Tyonek 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**

Harvests that are significantly composed of dead or dying trees may request exemption from the FRPA reforestation requirements. DOF received and approved one new request for a reforestation exemption on 60 acres of Native corporation land on the Kenai Peninsula in 2017.

### **Landowner/operator training**

Training for landowners and operators is provided by DOF area office and regional office staff. Sessions vary from formal classroom presentations to more informal “tailgate” sessions held during field inspections. DOF also provides training in the form of DPO reviews and inspection reports that recommend ways to conduct operations to implement the best management practices. In 2017, DOF conducted two training sessions in Southeast, one FRPA training session for five people, and a compliance monitoring session for three people.

### **FRPA 101**

The division is developing a series of FRPA training modules using PowerPoint. The full series will have 20 modules covering purpose, applicability, DPOs, stream classification, riparian standards, road construction and maintenance, stream crossings, reforestation, timber harvesting, inspections and compliance monitoring, enforcement, mass wasting, prosecution coordination, and hearing officer duties. Seven modules are complete; the rest are scheduled for completion in 2018.

### **FRPA reforestation regulation changes**

Amendments to the FRPA reforestation regulations went into effect on March 9. Changes to the regulations have been incorporated into the FRPA regulations field book and posted on the DOF website. The Detailed Plan of Operations forms have been updated to match the amendments and are available on the DOF website. For regions II and III, the updated forms have checkboxes for the season of harvesting and indicators of likely natural regeneration success. The DOF templates for state Forest Land Use Plans have been updated to incorporate the same changes.

In regions II and III, the changes:

- Add criteria for evaluating a request for a variation to reforestation stocking standards;
- Consider all size classes of trees in determining whether reforestation standards are met;
- Allow an extended period for natural regeneration to meet the reforestation standards where site conditions indicate that natural regeneration is likely to succeed;
- Increase the percentage of a harvest area that may be below the stocking standard. This corresponds to natural variation in stocking and wildlife habitat benefits from patchiness in forest cover;
- Allow landowners to include a mix of seed from native tree species grown up to 10 degrees latitude south of the planting area;
- Prohibit planting known invasive tree species on commercial forest operations regulated by the Forest Resources and Practices Act;
- Clarify that paragraph (a) applies specifically to natural regeneration from seed;
- Allow forest landowners to use various methods approved by DOF to document compliance with the reforestation standards. This reflects rapid development of remote sensing technologies since adoption of the original regulation requiring ground-based surveys; and
- Require regeneration reports after five years and at the end of the reforestation period for sites where an extended period is allowed for natural regeneration.

In all regions, the amendments allow applicants for reforestation exemptions to use various methods other than field surveys to document areas of dead and dying trees when approved by DOF.



## Changes to Timber Management Regulations

### State timber sale regulations

DOF is working on regulation changes to lengthen the allowed duration for small negotiated sales from one to two years, and to conform to statutory changes to AS 38.05.118 that broaden the options for negotiated sales to local manufacturers.

### Material sale regulations

Regulation amendments to separate the 11 AAC 71 regulations on state timber sales from those on material sales are still in development. The amendments would place the material sale regulations in a new section and update material sale requirements. The Division of Mining, Land, and Water is the lead on this project.

### Fee regulations

The DNR Commissioner signed updated fee regulations in September. The portion of the fee regulations dealing with the DNR Division of Geological and Geophysical Surveys has been filed by the Lt. Governor and became effective on November 9. The Department of Law is reviewing the remainder of the regulation package.

## Board of Forestry Members

Chris Beck, Recreation Organization, Willow

Keith Coulter, Native Corporation, Kodiak

Denise Herzog, Mining Organization, Fairbanks

Chris Maisch, Chair, State Forester, Fairbanks

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

Eric Nichols, Forest Industry Trade Association, Ketchikan

Will Putman, Non-governmental Professional Forester

Chris Stark, Environmental Organization, Fairbanks

Mark Vinsel, Commercial Fishery, Juneau

Loaded log truck at Coffman Cove.  
Photo by Greg Staunton



## Forest Managment

### Sustainable Salmon Funds

DOF received a grant for \$187,000 from the Alaska Sustainable Salmon Fund to replace and remove culverts near Tyonek. This closed a road constructed in the 1970s for timber harvest on the west side of Cook Inlet. During the 2017 field season the division contracted with Tyonek Native Corporation to complete the project, which began in 2016. Two culverts, each eight to nine feet in diameter, were installed in a “stream simulation design.” Four-foot diameter overflow culverts were installed as relief culverts.

The culverts will improve fish passage for four miles of stream and lake fish habitat. Additionally, two culverts were removed, reestablishing natural drainage courses and providing access to approximately six miles of Coho habitat. The division and the Department of Fish & Game will return to the site in 2018 for a final site inspection.

### Forest Inventory

DOF continues to implement the Forest Inventory and Analysis (FIA) Program within interior Alaska. The 2017 Joint Venture Agreement with the U.S. Forest Service Pacific Northwest Research Station increased funding from \$1.1 to \$1.6 million. Twelve temporary employees and two full-time field project foresters installed 240 permanent sample plots and aerially inspected 88 plots for the 2018 field season. Plots were installed near Fairbanks and Delta; most required helicopter access. DOF will remeasure the plots every ten years. Plot data will provide a comprehensive permanent sample plot grid to assess timber and wood product resources, vegetation structure, carbon and biomass accounting, and disturbance and change over time. With DOF's successful second field season behind it, one more season remains where DOF will rely partially on Forest Service support during this “ramp up phase.” After next field season, DOF will wholly take over field activities in support of the USFS project mission. The intent is to install plots on a 30,000-acre grid across the entire forested portion of interior Alaska. It will take about eight years to complete the initial plot installation.

#### Inventory on state land

DOF worked on timber typing of roughly 10,000 acres on state land in the Aniak area. The division is also processing data from 2004 Native allotment inventory plots conducted by Tanana Chiefs Conference in the middle Kuskokwim area. DOF will apply the information to the timber typing work to estimate volumes. When complete, the project will have timber typing on 165,000 acres of state land in the area.



Vallenar Creek bridge construction on Gravina Island.  
*Photo by Greg Staunton*



## Timber Sales Sold on State Land

Note: some sales are offered in cords, cubic feet, or tons rather than board feet. For comparison in this chart, all volumes have been converted to board feet. Therefore, the total volume figures are approximate.

### Total Sales Sold – FY 2017

Area	Sales	Acres	Volume (MBF)
Southern Southeast	2	435	7,909
Northern Southeast	7	82	287
Kenai-Kodiak	5	70	145
Mat-Su/SW	7	66	233
<b>Coastal Total</b>	<b>21</b>	<b>653</b>	<b>8,574</b>
Fairbanks	4	161	795
Delta	8	155	493
Tok	5	851	1,461
Copper River	0	0	0
<b>Northern Total</b>	<b>17</b>	<b>1,167</b>	<b>2,749</b>
<b>State Total</b>	<b>38</b>	<b>1,820</b>	<b>11,323</b>

## Forest Management Planning

Division of Forestry staff reviews and comments on a wide range of state and federal agency land-use plans to help ensure the division and the public has 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.

The Division of Mining, Land and Water completed public scoping for the revised Copper River Basin plan in 2016. The next steps in the revision of the plan were on hold in 2017. When this project moves ahead, DOF will provide input on forestry-related elements and participate in reviews of the draft plan.



Forester Peter Lucas with Coffman Cove red cedar.  
Photo by Greg Staunton

## Federal Land Activity

### Challenge Cost Share Grant

In 2013, the Secretary of Agriculture issued a memorandum addressing sustainable forestry in Southeast Alaska and directing the Tongass National Forest “to speed the transition away from old-growth timber harvesting and towards a forest industry that utilizes second growth – or young growth – forests.” The Secretary emphasized that the transition must take place “in a way that preserves a viable timber industry that provides jobs and opportunities for residents of Southeast Alaska.” DOF and the U.S. Forest Service are collaborating with communities and other partners through a Challenge Cost Share Agreement, signed in June 2015, to improve young growth information and increase economic opportunities for communities in both the short- and long-term. DOF is the lead partner in this effort coordinating over \$5 million in federally funded activities.

### Tongass Young-Growth Inventory

DOF is conducting an inventory for the second year under the Challenge Cost Share Agreement. DOF’s primary task is to inventory 35,000 acres of second growth timber in the Tongass National Forest. The information will be used to aid the Forest Service in its transition from an old-growth dependent timber sale program to a program based on young growth, while maintaining a viable forest products industry. During 2017, DOF completed 4,475 timber cruise plots (13,850 acres) on Prince of Wales and Revilla islands. Data collected includes variables that will allow projections of forest growth for the stands. DOF also examined the inventory stands for accessibility and applicable logging systems. Some stands may be inoperable due to stream buffers or other obstacles; DOF will categorize stands as feasible or infeasible. This data will further refine the final inventory volume estimate.

### Workforce development

One branch of the Challenge Cost Share Agreement provides technical forestry training for Alaskans. The Department of Commerce and Economic Development leads this effort in coordination with DOF and other agencies. Program graduates are candidates for forest technician jobs on inventory projects and stand exams with the forestry agencies, and restoration work with non-governmental organizations. The project also provides internships for college students and career information for high school students in resource management and support fields. The program is reaching out to southeast communities to get as many local people as possible into the training.

Thirty people from Skagway to Metlakatla applied for the second Forestry Academy that was held on Prince of Wales Island in March. DOF and USFS staff trained 12 people to work on inventories. Nine of the 12 graduates of the program were employed within one month of completing the course. As of the end of 2017, one graduate was in a full-time position with Sealaska Timber and two were working term positions with the USFS in Thorne Bay. There is interest in southern southeast Alaska for a third resource academy around stream survey skills and protocol. A defined program and delivery plan have yet to be confirmed.

The pilot season of Training Rural Alaska Youth Leaders and Students (TRAYLS) took place in the summer of 2017. Eight 14- to 23-year-old crew members participated in this three-month workforce development program. The program introduced the crew to resource management opportunities in the Tongass National Forest. The program was in Kake for one month then Prince of Wales Island for two months. Experiences and project work included introductions to archeology, forestry, biology, hydrology, trail building, and maintenance. Six government and non-government organizations supported the pilot season of this youth workforce development project. Twenty organizations have committed to supporting a second year of this program for the 2018 field season.





DOF foresters cruise the Kosciusko Island timber sale, in support of the Tongass Young Growth Project.  
*Photo by Doug Hanson*

### **First Timber Sale Under State-Federal Good Neighbor Authority**

A milestone in Alaska forest management occurred in September with the award of the first timber sale under a Good Neighbor Authority agreement between the state and the U.S. Forest Service. The agreement enables agencies to work collaboratively across land ownership boundaries to manage forest lands.

Natural Resources Commissioner Andy Mack signed the contract with Alcan Forest Products of Ketchikan for a 29 million board foot young-growth timber sale on Kosciusko Island near Edna Bay for \$2.6 million in federal revenue.

A supplemental agreement signed in May outlines the specific timber sale work to be completed by the state on the Tongass National Forest during the first year of the agreement. The Division of Forestry and its partners and contractors were authorized to prepare, award, harvest and administer the Kosciusko young-growth timber sale.

This first sale under the Good Neighbor Authority agreement in Alaska is viewed as the future of broader, landscape-scale management of the renewable timber resource. It provides immediate support to the timber industry and lays the foundation for long-term benefits from cooperative management and shared stewardship of the Tongass National Forest.

Tongass National Forest staff conducted the environmental analysis and public involvement process required under the National Environmental Policy Act, and the DOF will oversee the site-specific sale and road design. A bid opening for the timber sale was held September 13 at the DOF office in Ketchikan. Joint infrastructure developed and a new log transfer facility and road upgrades done as part of the project can benefit state and University forest projects on Kosciusko Island.

The 29 million board foot Kosciusko sale includes approximately 1,500 acres of young-growth timber stands composed of approximately 75 percent Sitka spruce and 25 percent western hemlock. The sale constituted most of the 31 million board feet total volume that the Tongass National Forest sold last fiscal year. The stands will be harvested by a variety of methods. A portion of the receipts from the timber sale will reimburse the state for its costs to do the work.

Gravina and Heceta are the most likely sites for new GNA projects. Future projects depend on requests from the USFS and completion of the National Environment Policy Act process for candidate areas.

## ***Alaska State Forests***

The Alaska State Legislature has designated three state forests to be managed by the Department of Natural Resources for a sustained yield of a variety of resources. A DNR management plan guides the use of each state forest and determines how to manage different uses to complement each other while minimizing conflict.

### **Haines State Forest**

Established in 1982

286,208 acres

The Haines State Forest in southeast Alaska includes the watersheds of major tributaries to the Chilkat River. Located in a transition zone between the moderate, wet coastal climate and the dry, cold interior, the forest provides suitable conditions for a diversity of vegetation. The rugged topography ranges from sea level to 7,000 feet.

The forest is composed mostly of two forest types – western hemlock/Sitka spruce, and black cottonwood/willow. Lodgepole pine and paper birch occur as minor species throughout the forest. About 15 percent of the state forest is dedicated to timber harvest, which has occurred in the forest since the 1960s. The annual allowable harvest is 5.88 million board feet. Although natural regeneration occurs readily, all large commercial sales have been replanted since the 1970s to accelerate reforestation.

### **Tanana Valley State Forest**

Established in 1983

1.78 million acres

The Tanana Valley State Forest lies almost entirely within the Tanana River Basin in east-central Alaska. The Tanana River flows for 200 miles through the forest. The forest extends 265 miles, from near the Canadian border to Manley Hot Springs. It varies in elevation from 275 feet along the Tanana River to over 5,000 feet in the Alaska Range.

Nearly 90 percent of the land is forested, mostly with paper birch, quaking aspen, balsam poplar, black spruce, white spruce, and tamarack. About half of the Tanana Basin's productive forest land is located within the state forest and timber production is the major commercial activity. Although the forest is open to mining, gravel extraction, oil and gas leasing, and grazing, very little is done. The forest also offers a variety of recreational opportunities. The 12,400-acre Bonanza Creek Experimental Forest, located within the TVSF is dedicated to forestry research.

The TVSF Citizens' Advisory Committee provides recommendations to the Division of Forestry on forest management issues on these lands and is a conduit of information between the division and the public.

### **Southeast State Forest**

Established in 2010

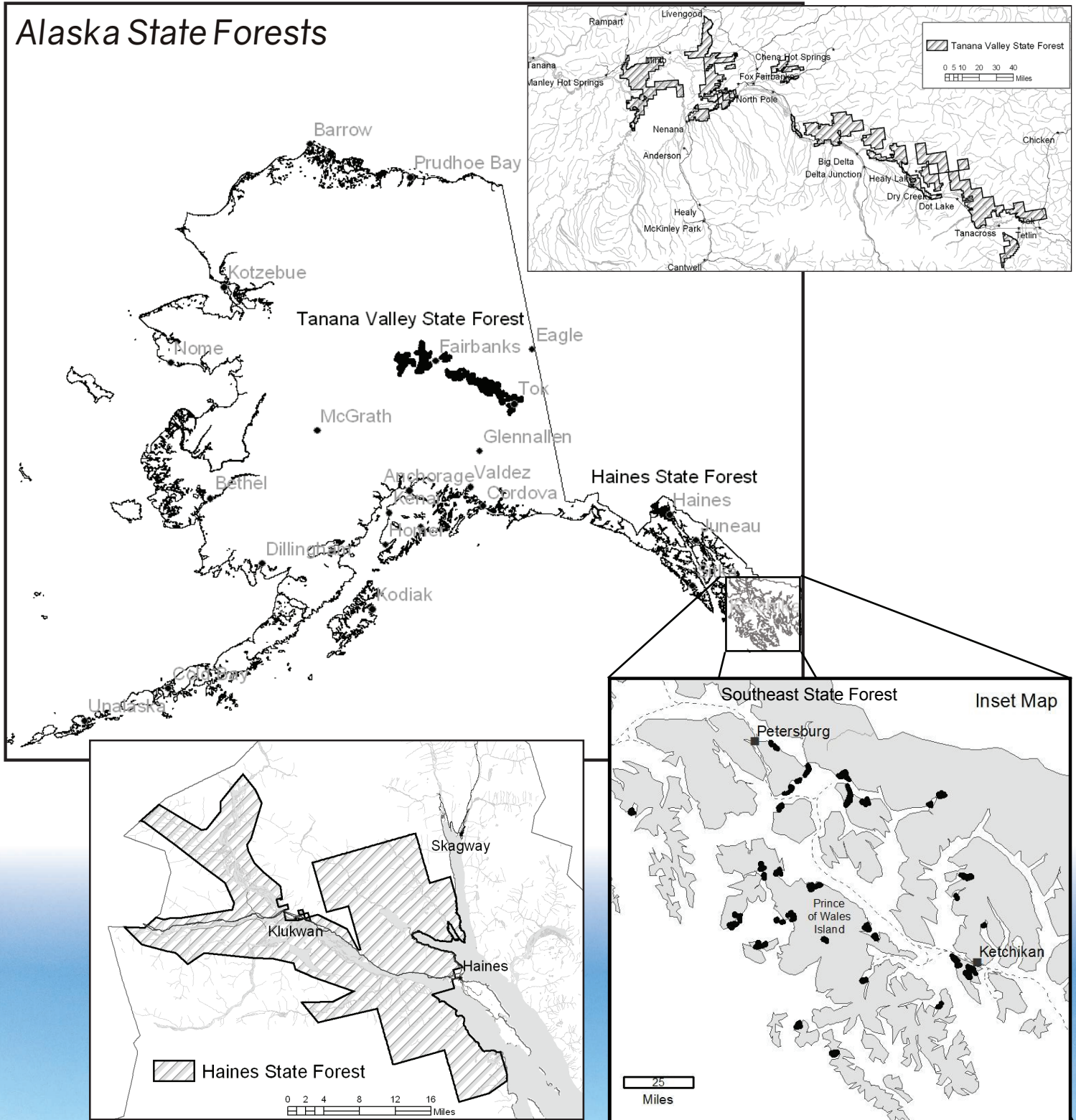
48,472 acres

In 2010, the Alaska Legislature designated 25,291 acres in 20 parcels as the Southeast State Forest and it added 23,181 acres to the Forest in 2011. The Department of Natural Resources adopted the first Forest Management Plan in February 2016.

The state forest includes land on the mainland and the islands of Prince of Wales, Gravina, Hecata, Kosciusko, Revillagiedo, Tuxekan, Suemez, Dall, Mitkof, Kuiu, Zarembo, and Wrangell.



# Alaska State Forests



# Division of Forestry Area Office Activity

## Kenai-Kodiak Area

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

### Fires

The Kenai-Kodiak Area had 21 fires this year totaling 1,113 acres. DOF and Kenai National Wildlife Refuge staff contained a portion of the lightning-caused East Fork Fire on the Refuge and managed the remainder for resource benefits such as habitat improvement.

In the Kenai-Kodiak Area, 95 percent of the fires are 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.

### Timber Management

The area office sold five timber sales in 2017. 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 50 million board feet was harvested on Kodiak and Afognak islands in 2017. Operations on Kodiak Island ended in March when the operator completed a sale of 100 million board feet of timber on 8,000 acres begun in 2011. Ongoing harvest operations on Afognak Island will continue into 2018 and beyond. The division will continue to process Detailed Plans of Operations and make field inspections on Kodiak and Afognak islands to ensure reforestation and 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 will be load-rated by an independent firm in 2018.

The return of “average” (cooler) seasonal temperatures during the winter of 2016-2017 resulted in a drastic reduction of spruce aphids (*Elatobium abietinum*) in Homer and across Kachemak Bay. Thus far tree mortality has been very low, however some trees impacted by aphids in 2015 and 2016 appear mostly defoliated and may succumb to other damaging agents.

DOF seasonal staff worked on projects funded by a U.S. Forest Service grant to thin and remove black spruce within high use State Park units on the central Kenai Peninsula. Staff removed lower limbs and felled trees to a desired spacing of 10 feet to slow the spread of wildfires.



DOF and Kachemak Bay State Park staff surveyed park property on the south side of the Bay affected by spruce aphids. Pictured is Hans Rinke, Kenai/Kodiak Area Forester.  
Photo by Jason Moan.



## **Fairbanks-Delta Area**

### **Timber Management**

Timber is being commercially harvested on state, borough, University of Alaska, and Native corporation lands throughout the Fairbanks and Delta areas. On state land, there are over 130 active timber contracts with more than 40 operators.

Demand for saw logs remains stable and Northland Wood Products continues as 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 2017, Fairbanks Area sold 336 permits for a total of 1,177 cords and Delta Area sold 51 permits for a total of 199 cords.

Regeneration surveys continue every spring in the Fairbanks-Delta Area. There was no planting in 2017 but 40,000 seedlings have been ordered for the summer of 2018. Scarification is a common post-harvest treatment in the Fairbanks-Delta Area and DOF continues trying different applications to determine which achieves the best results. Scarification methods being used are roller chopping, blade scarification, ripper plowing, and disk trenching.

Road work and maintenance are an ongoing need in the Fairbanks-Delta Area. Numerous small road projects were required to repair damage caused by above-average rainfall the past two years. A cooperative project with the Salcha-Delta Soil and Water Conservation District extended the Delta West logging road 2.5 miles. Three small contracts were awarded to repair and gravel the Bonanza Creek logging road apron and approach to the Parks Highway, to repair two miles of a severely washed out portion of the Nenana Ridge road, and to repair and gravel the Rainbow Lakes road at the Whitestone winter road crossing.

### **Habitat Improvement**

Delta Area staff, in cooperation with Alaska Department of Fish & Game, cleared two miles of access road and roller-chopped about 72 acres of aspen and spruce to improve moose and grouse habitat. The work created a mosaic of landscape types that can help slow the progress of a wildland fire. Pittman-Robertson funds paid for this project.

### **Fires**

Fairbanks had 39 fires totaling 8,422 acres that were actively managed including the largest incident, the South Fork Chena Fire. Delta had only 10 fires totaling 29 acres. The office supported state and federal agencies in Alaska, Canada, and the Lower 48 with initial attack firefighters, operations, dispatchers, and support functions. The Fairbanks-Delta Area held two months of training in the spring for 547 emergency firefighters and personnel from fire departments and local governments.

### **White Mountain Crew Activity**

Before the fire season began the crew had 14 days of classroom training and physical fitness testing to meet national standards. The crew was assigned to nine fires in Alaska for 44 days and supported the division statewide on engines and helitack. Crew members spent 64 days on assignment in California on three complex fires. The crew also worked 24 days on fuel mitigation projects.

## Fairbanks-Delta Area (continued)

### Fuels and Firewise

Prescribed fire plays an important role in Alaska forest management. In the Delta Area, staff partnered with the Department of Fish & Game, Alaska Fire Service, and others to burn 800 acres of the 3,556-acre Panoramic Field Complex of the Delta Bison Range.

Fairbanks personnel burned slash piles on about two acres of the Goldmine Trail fuel break during the winter. In the spring, the White Mountain crew began work on the Goldstream subdivision shaded fuel breaks, cutting eight acres and laying out an additional 16 acres. Personnel met with residents to discuss the project and promote Firewise principles.

DOF met with public land managers, fire chiefs, and the public to discuss the Fairbanks North Star Borough Community Wildfire Prevention Plan, reaffirm objectives, plan future projects, and identify risk management challenges.

Prevention staff provided Firewise literature to local emergency services providers, land management agencies, and the public at several community events. Personnel also made 45 presentations for schools, fire departments, and homeowners.

The Delta Area partnered with the northern region stewardship forester to apply for a Firewise outreach and wildland/urban interface cost share grant for treating residences in high risk areas. The grant request was successful and will enable staff to provide education, public presentations and home visits. Homeowners will receive a Firewise assessment and recommendations; those with hazardous fuels are eligible for, and will be encouraged to apply for, a fuels mitigation grant.



A "dog team" comprised of Tok Area staff pulls Smokey Bear on a dog sled in the Tok Fourth of July parade. The Tok Area Forestry office won second-prize in the parade's float competition.

*Photo by Rachel Calderwood*

## Tok-Copper River Area

The Tok Area continues to have a consistent demand for fuel wood, logs, and biomass. Nine operators have 21 active sales in the Tok Area. Most of the volume harvested in 2017 was fire and blowdown salvage. The forest products industry in Tok is heavily dependent on standing dead wood and in the future education and a transition to green wood will be necessary. One local mill is able to kiln dry their product and another is working on a densified wood ("presto log") operation that could use green wood. The densified wood operation has seen multiple set-backs and there is uncertainty in their timeline for full production.

Personal use wood is in high demand in Tok. Beginning in 2018, the Tok Area will resume charging for personal use wood permits at a rate of \$10/cord. Some community resistance is likely as firewood permits have been free for over ten years.

The Tok Area maintains and develops access to timber for personal use and commercial sales. In 2017, DOF maintained 20 miles of winter road and established ice crossings on the Tanana River and Moon Lake. Staff monitors the crossings throughout the season.

The Tok School installed a low-pressure steam generator in conjunction with their high-pressure system. The new system increased the efficiency and capacity for heating and electricity generation. The low-pressure system can operate at a greater range of outdoor temperatures and allows the school to produce electricity most of the school year. The projected annual consumption of biomass for this system is 2,000 green tons. To date, the school has relied on biomass from hazardous fuel mitigation projects, which is not expected to meet this increased demand. Options are being considered to provide an adequate supply.

Demand for personal use firewood remains high in the Copper River area and there is some demand for commercial sales. The area collaborated with the Alaska Department of Transportation and Public Facilities to develop a prospective timber sale at the Cordova airport. The airport lease was amended to allow for a commercial timber sale to use timber cut to comply with FAA requirements.



## Mat-Su & Southwest Area

This 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 offices and a seasonal office in McGrath. The Anchorage Bowl, including Joint Base Elmendorf-Richardson and Eagle River, encompass the largest wildland-urban interface in the state, while lands in Southwest Alaska are among the least populated and most remote.

The wet summer of 2017 resulted in few fires so most of the staff deployed to the Lower 48 by mid-July. The Mat-Su had 58 fires on 2,281 acres with no significant fires in the wildland-urban interface. The Southwest had 25 fires on 68,837 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.

Three purchasers have five active state commercial timber sales on 403 acres in the Mat-Su with another 138 acres available for over-the-counter purchase. The area also sold 546 cords of personal-use firewood under 147 online permits and an additional 22 negotiated personal-use contracts for remote landowners in the Mat-Su valley and Southwest Alaska.

The Area maintains 12 miles of road and received \$251,155 of Pittman-Robertson funds to repair the most heavily used sections. The roads are primarily used to provide access for commercial timber sales, personal use timber sales, and the online firewood program.

## Southeast Area

The Southeast Area covers the Alaska panhandle from Haines to Ketchikan. The public and private land in the area provides most of the timber volume and revenue harvested from forested land in Alaska. The office manages the Southeast and Haines state forests and administers the Alaska Forest Practices Act on extensive private holdings within its jurisdiction.

Due to the downturn in timber supplied by the U.S. Forest Service (the major landowner) the office has provided needed state forest timber sales and facilitated the coordination of other landowner efforts to do the same on their lands. To this end the office managed and completed several large capital improvement road and infrastructure construction projects this year to access the Southeast State Forest. The largest of these projects was the construction of the 7.7-mile Vallenar Bay Road and six bridges on Gravina Island through a public works contract. This project created access to 2,400 acres of state forest and several other large public ownerships.



New 80-foot Vallenar Creek bridge *Photo by Greg Staunton*

## 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 landowners and businesses, boroughs, local governments, and university campuses is difficult to quantify but is substantial.

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

## Alaska Community Forestry Program

City trees and greenspaces confer many health, social, economic and environmental benefits but they need care to maximize and sustain these benefits. The division's Community Forestry Program helps communities enhance these assets 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 15-member council represents the diversity and broad spectrum of interests and experiences in the state, and the members are valuable partners in local community forestry efforts.

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

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

### Staff Changes

Jim Renkert began as the new Community Forestry Program Manager in May. Jim started with the Department of Natural Resources in 1990 and has worked in the Division of Mining, Land and Water; Alaska State Parks; and the Alaska Coastal Management Program. He has a wide range of natural resource management expertise and extensive community organizing and leadership experience with several non-profit organizations.

## Alaska Community Forest Council Members

Paul Guzenski, Anchorage  
Nathan Lojewski, Anchorage  
Jeremy Douse, Fairbanks  
Ed Leonetti, Vice Chair, Anchorage  
Dan Rees, North Pole  
Isobel Roy, Anchorage  
Stephen O'Sullivan, Wasilla  
Hans Klausner, Treasurer, Kodiak  
Laura Charlton, Ketchikan  
Gino Graziano, Secretary, Anchorage  
Jud Kirkness, Sitka  
Nan Mundy, Chair, Juneau  
Patrick Ryan, Anchorage  
Jon Gellings, Juneau  
Pat Leary, Anchorage

## Community Assistance

### Education

The Community Forestry Program provided training for 144 people from 16 communities: Anchorage, Palmer, Joint Base Elmendorf-Richardson, Wasilla, Girdwood, Talkeetna, Fairbanks, North Pole, Sitka, Juneau, Ketchikan, Haines, Kodiak, Kenai, Ninilchik, and Soldotna.

Community Forestry Program staff:

- Partnered with the UAF Cooperative Extension Service in Anchorage to teach a pruning class for arborists, landscape installation and maintenance professionals, and the public;
- Provided technical assistance and information to local governments, state and federal agencies, landscape architects, tree services, utilities, and homeowners;
- Provided Orchard and Food Forest Grants to five communities or organizations to test and demonstrate which fruit trees can be grown in Alaska;
- Served on the Fairbanks Green Infrastructure Group, UAA Tree Campus USA Committee, and the Anchorage Cooperative Weed Management Association;
- Held an Alaska Community Forest Council meeting at the UAF Experimental Farm in Wasilla and invited local partners to attend and participate on a tour to an apple orchard;
- Provided instruction for two Anchorage School District Summer Academy courses:
  - Twenty-eight teachers participated in an outdoor learning and education workshop focused on Campbell Creek. Participants learned about revegetation and bank restoration and their vital role in salmon habitat, the importance of native plant species, how to monitor wildlife along creek corridors, and how to monitor water quality through a macro invertebrate study.
  - The second course, entitled Conserving Campbell Creek through Conservation and Restoration, used the Project WILD, Alaska Wildlife, and Project Learning Tree curricula. The course focused on the Campbell Creek riparian area, its indigenous and invasive plants, wildlife, and the impacts of human use. The workshop demonstrated methods of conservation, preservation, and restoration of urban habitats.

### Arbor Day

Eleven communities held Arbor Day events in May. Events included elementary school and university tree plantings, seedling giveaways by a utility, and a sale of bare root trees and shrubs to benefit a 4-H Club.



Fairbanks Arbor Day Committee members pose with Smokey Bear during a tree planting ceremony at Spruce Tree Montessori School in Fairbanks on Arbor Day. *Photo by Tim Mowry*

### Joint Base Elmendorf-Richardson

Community Forestry staff conducted a pruning and tree maintenance class for base personnel.

### Fairbanks

Program staff continued work to implement a U.S. Forest Service Landscape Scale Restoration Grant project, Using Green Infrastructure to Restore the Chena River Watershed. The project demonstrates green infrastructure designs as cost effective solutions to decrease runoff and improve water quality for a healthy and sustainable fishery.



## Community Assistance (cont.)



Anchorage Youth Employment in Parks crew restore 1,200 feet of Campbell Creek at Lynnwood Park in Anchorage. They used coir logs, brush layering, vegetative mats, live willow stakes, and plantings of native trees and shrubs to stabilize the streambank.

*Photo by Stephen Nickel*

### Anchorage

Program staff continued to implement the U.S. Forest Service Landscape Scale Restoration Grant project, Fish Need a Forest: Restoring Campbell Creek Using Green Infrastructure. The project is restoring a seven-mile stretch of Campbell Creek where it runs through a highly developed area. Project partners, including the Anchorage Park Foundation and the Municipality of Anchorage's Youth Employment in Parks program, are working 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.

At the request of the Anchorage Parks and Recreation Department, staff conducted a tree survey and assessment at Folker Park, a two-acre forested park near the U-Med District. The park forest is a mix of birch, spruce, poplar, willow, aspen, and mountainash. The park is proposed to be developed as an intergeneration health and healing park. Following an inspection, staff provided a report to the municipality with recommendations and options to improve forest health, address spruce bark beetle infested trees, and retain trees once the park amenities are constructed.

## Community Forestry Organizations

In 2017, volunteers donated 1,542 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 Community Forest Council for public education. The most active organizations are:

- Alaska Community Forest Council
- Fairbanks Arbor Day Committee
- Juneau Urban Forestry Partnership
- Sitka Tree and Landscape Committee

The following were recognized by the Arbor Day Foundation and National Association of State Foresters:

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

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

**Tree Campus USA:** University of Alaska Anchorage



Alaska Community Forest Council members tour the apple orchard owned by Dan Elliott (plaid shirt) in Wasilla. Dan grows 27 varieties of apples and is a member of the Alaska Pioneer Fruit Growers Association.

*Photo by Jim Renkert*

## Forest Health Protection Program

The Division of Forestry cooperative forest health survey program with the U.S. Forest Service – Forest Health Protection (USFS-FHP) continues to be a key component in the forest health protection strategy in Alaska. It includes both aerial and ground surveys. Aerial detection surveys take place across all ownerships and cover about 15 percent of the forested acres in the state in a year. 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 damage numbers recorded from the 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, the focus is on forest insects and aerial detection surveys. More detailed information on the 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.

### Surveys Overview

In 2017, DOF and USFS-FHP staff mapped nearly 845,000 acres of forest damage on the 27.5 million acres surveyed (Table, page 25). The acreage of damage observed is 12 percent lower overall than in 2016 and includes damage from insects, diseases, and abiotic agents. While the overall acreage of damage mapped decreased, substantial increases in spruce beetle-caused mortality were observed.

### State Forest Survey Updates

Each year, the aerial detection surveys cover portions of the Tanana Valley, Haines, and Southeast state forests. In 2017, roughly 64,200 acres of damage was noted within or partially within the three forests, with the majority occurring within the Tanana Valley State Forest (about 63,400 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** - (approx. 33% surveyed). Aspen leaf miner (57,350 acres), willow leafblotch miner (4,650 acres), and damage by unknown agent (750 acres). Northern spruce engraver (NSE) activity observed within the state forest dropped significantly from that observed in 2016, with only 170 acres mapped in 2017. For more detailed information about ongoing NSE activity in Interior Alaska, see the bark beetle summary below or refer to the Forest Health Conditions in Alaska 2017 publication.

**Haines State Forest** – (approx. 49% surveyed). Spruce beetle (380 acres), *Dothistroma* needle blight (90 acres), and defoliation by unknown agent (20 acres). *Dothistroma* needle blight, which affects shore pine, has been active in the area over the last few years. The spruce beetle activity in the Haines State Forest has been ongoing for several years.

**Southeast State Forest** - (approx. 42% surveyed). Yellow-cedar decline (180 acres) and porcupine-caused damage (125 acres). Yellow-cedar decline continues to be prevalent in Southeast Alaska.



Beetle-killed white spruce in the Susitna Valley. Photo by Jason Moan



DOF and Forest Service staff conduct a survey at Shell Lake to determine the cause of multi-year defoliation in the upper Yentna River area. Pictured: Garret Dubois, USFS Biological Science Technician (left) and Jason Moan, Forest Health Program Manager.

Photo by Steve Swenson, USFS FHP



## Bark Beetles

### Spruce beetle

Spruce beetle activity was observed on almost 405,500 acres in 2017, twice that mapped in 2016. The acres affected represent the most spruce beetle damage mapped during a survey since 1997, which was the year following the peak of the spruce beetle outbreak in the 1990s. Southcentral Alaska is experiencing a spruce beetle outbreak, with most of the damage concentrated in the Susitna River Valley and adjacent drainages (337,000 acres); the northwestern Kenai Peninsula is also seeing increasing damage (55,000 acres). A variety of projects to monitor and mitigate spruce beetle damage are underway or in development.

**Notable activity:** Susitna River Valley and Beluga Lake area; northwestern Kenai Peninsula; Lake Clark and Katmai national parks; Endicott, Klehini, and Stikine river valleys and near Willoughby Island.

### Northern spruce engraver

Northern-spruce-engraver-caused mortality was mapped on 6,000 acres in 2017, down from 14,400 acres in 2016. Projects to monitor and mitigate damage from this beetle in the Interior are ongoing in several locations.

**Notable activity:** (areas are a collection of scattered small areas of damage): Kobuk River valley—Ambler to Akoliakruich Hills; Salcha River—McCoy Creek to Stone Boy Creek; Chena River—near Pleasant Valley; Tanana River—Near Tanacross and Harding Lake; Beaver Creek—Three Lakes south to Windy Creek; Holitna River—near Taylor Mountain; Kenai Peninsula—near Skilak and Tustumena Lakes.

## Defoliating Insects

Approximately 373,700 acres of damage observed during the aerial detection surveys was attributed to defoliating insects, with 90 percent from hardwood defoliating pests. Most of the defoliation can be attributed to two insects, the aspen leaf miner (147,500 acres) and willow leafblotch miner (73,000 acres), both of which decreased from 2016.

Generalist hardwood defoliation in parts of the Alaska and Aleutian ranges and western Alaska was 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 Russian Mission upstream to Anvik. Efforts to determine the causal agent are ongoing. The native *Orthosia hibisci* appears to be the primary causal agent, although other insects may also be contributing.

Roughly 37,300 acres of softwood defoliation in spruce and hemlock was also observed, most of which was spruce defoliation – casual agent unknown (35,400 acres). The non-native green spruce aphid, a pest of Sitka spruce, was observed on only 400 acres in 2017, down from 34,200 acres in 2016. Populations of green spruce aphid declined substantially following the winter of 2016/2017. Most of the affected trees in the Kachemak Bay area, where the defoliation had been severe, appear to be recovering. Some mortality of severely defoliated trees in the Homer area was documented, but those trees represent a small percentage of the aphid-affected trees surveyed overall.

## Outreach

In 2017, DOF Forest Health staff connected with over 400 individuals seeking forest health assistance or information, a marked increase over previous years. Spruce beetles and spruce beetle-caused damage in southcentral Alaska were the primary drivers of the increase. Calls to DOF area offices in the impacted areas also increased in frequency.

In the fall, DOF partnered with the UAF Cooperative Extension Service to provide public workshops primarily addressing spruce beetle biology, status, and mitigation options in Big Lake, Talkeetna, and Kenai. The Forest Health Program, Forest Stewardship Program, and local area offices participated in the events. Borough staff also assisted with workshops in Big Lake and Talkeetna. The workshops were well received and roughly 130 people attended. Feedback provided by participants will help guide future DOF spruce beetle mitigation research and outreach efforts.



Forest Health Program Manager Jason Moan investigates heavy birch defoliation near Skwentna.

Photo by Steve Swenson, USFS FHP



**Forest Insect & Disease Activity Detected by Aerial Surveys in Alaska in 2017**

This table is from the report, Forest Health Conditions in Alaska 2017. 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.

<b>Category</b>	<b>AGENT</b>	<b>Total Acres</b>	<b>National Forest</b>	<b>Native</b>	<b>Other Federal</b>	<b>State &amp; Private</b>
Forest Diseases	Hemlock canker	2,632	2,602	0	0	30
	Willow dieback	1,038	0	70	383	585
	Alder dieback	972	189	407	65	310
	Dothistroma needle blight	325	104	0	135	87
	Spruce broom rust	189	0	79	108	3
	Spruce needle rust	76	0	0	0	76
Defoliators	Aspen leaf miner	147,554	0	27,088	23,082	97,383
	Willow leafblotch miner	72,986	0	31,810	21,064	20,111
	Willow defoliation	40,165	155	14,024	16,456	9,529
	Speckled green fruitworm	37,622	0	3,360	241	34,022
	Spruce defoliation	35,405	31,892	109	3,368	37
	Aspen defoliation	20,728	0	1,182	7,582	11,964
	Hardwood defoliation	5,533	0	3,623	1,112	798
	Alder defoliation	3,419	372	921	371	1,755
	Birch aphid	3,256	0	0	0	3,256
	Birch defoliation	2,899	0	690	1,672	537
	Conifer defoliation	1,130	497	34	34	564
	Cottonwood defoliation	979	0	672	235	72
	Birch leaf roller	607	0	78	398	131
	Birch leaf miner	450	0	0	0	450
	Spruce aphid	408	166	0	0	242
	Spruce budworm	331	0	201	66	64
	Large aspen tortrix	225	0	0	225	0
	Alder sawfly	2	0	0	0	2
Mortality	Spruce beetle	405,384	929	39,542	31,551	333,361
	Ips engraver beetle	6,012	0	408	537	5,066
	Hemlock mortality	97	82	15	0	0
	Western balsam bark beetle	39	6	0	0	33
Abiotic and Animal Mortality	Yellow-cedar decline	47,406	43,052	1,650	0	2,703
	Flooding/high-water damage	2,830	450	133	517	1,730
	Porcupine damage	1,525	986	233	0	306
	Birch crown thinning	1,245	0	0	0	1,245
	Hemlock branch flagging	1,066	764	93	0	208
	Windthrow/blowdown	368	368	0	0	0
	Landslide/avalanche	114	101	8	0	5
	Aspen discoloration	19	0	0	0	19

1 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.

## 2017 FOREST STEWARDSHIP COMMITTEE MEMBERS

Clare Doig, Consulting Forester, Anchorage

Dan Parrent, USDA Forest Service State & Private Forestry, Anchorage

Tom Dearlove, Kenai Peninsula Borough, Soldotna

Will Putman, Tanana Chiefs Conference, Fairbanks

Conor Reynolds, The Nature Conservancy, Juneau

Jeff Curry, Farm Service Agency, Palmer

Jeff Smeenk, Palmer Soil & Water Conservation District

Sue Rodman, Alaska Department of Fish & Game, Anchorage

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

## Forest Stewardship Program

The purpose of the Forest Stewardship Program is to provide private landowners with technical assistance for making decisions about forest resources. At the request of landowners, staff members prepare forest stewardship plans that include field reconnaissance and the best available forest resources information. Forest stewardship plans often address forest health issues, reforestation, timber stand improvement, forest road repair, and defensible space from wildfire. Alaska Native corporations are provided grants for consulting foresters to prepare forest stewardship plans. The Forest Stewardship Program is a federally funded program administered by the Division of Forestry.

The division receives guidance from the Forest Stewardship Committee, which is comprised of representatives from a broad range of Alaska private landowner and land management interests. Areas of discussion include grant and cost-share rates, eligibility criteria, outreach methods, and forest stewardship plan requirements. The committee met once in 2017.

### 2017 Highlights

- Three Alaska Native corporations were awarded grants to begin forest stewardship plans.
- Stewardship plan development began on Alaska Mental Health Trust land.
- One Alaska Native corporation completed work on a forest stewardship plan covering 362,000 acres.
- Thirty-five forest stewardship plans covering 1,494 acres were prepared for and signed by individual forest landowners.
- Thirty-five homeowners completed wildfire fuel reduction projects.

### Planning by Alaska Native Corporations

Alaska Native corporations are the largest private landowners in Alaska, and providing grants that allow these corporations to develop forest stewardship plans is an important part of the Forest Stewardship Program. In 2017, forest stewardship planning grants were awarded to Kenai Natives Association, Koniag Incorporated, and Shee Atika. The Alaska Mental Health Trust also began developing a stewardship plan for two tracts.

One Alaska Native corporation, Sealaska, completed a stewardship plan in 2017, covering 362,000 acres. The Alaska Mental Health Trust completed a plan for one location covering 4,763 acres. Biomass energy development and commercial timber production were primary objectives of these plans, with secondary goals of enhancing the overall health and resilience of the forest, promoting wildlife habitat, reforestation, and sustainability.

Since 1992, 58 forest stewardship plans covering 6,981,421 acres have been prepared for Alaska Native corporations.



Logging operation on a 40-acre tract in Wasilla. Landowner completed a forest stewardship plan and requested funds from the Natural Resource Conservation Service to replant.  
*Photo by Trevor Dobell-Carlsson*

## Planning by Individual Landowners

Stewardship plans covering 1,494 acres were prepared for 35 landowners. Wildfire defensible space, firewood production, wildlife habitat, and property aesthetics are primary goals for individual landowners.

- Since 1992, 949 individual landowners have adopted forest stewardship plans for a total of 48,000 acres.
- Most stewardship plans are for landowners in the Matanuska-Susitna, Fairbanks North Star, or Kenai Peninsula boroughs.
- In 2017, individual landowners were reached in Chiniak, Seldovia, and Seward for the first time.

## Cost-Share Assistance

Forest Stewardship Program personnel assisted private forest landowners by providing advice on ways to mitigate the risk of catastrophic wildfires. Cost-share funding for hazardous fuel reduction practices has come from wildland urban interface fuels reduction grants from the Western States Fire Managers and Council of Western State Foresters. Accomplishments reported here are home inspections, written defensible space/forest stewardship plans, and cost-share grant agreements. In 2017, final inspections were performed for 35 landowners with grant payments of over \$50,000 to perform hazardous fuel reduction. More than 85 additional landowners were educated about the importance of wildfire defensible space, with more applications for pass-through grants pending project completion. Multiple community meetings were held to teach citizens about Firewise, defensible space, and forest stewardship.

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 2017, the Forest Stewardship Program received approval for a fuels reduction grant program in Cooper Landing. This will increase the ability of Forest Stewardship Program personnel to contact private forest landowners and deliver educational programs and outreach in an area with a high risk of wildfire. The grant will pay to construct or rehabilitate fuel breaks on state- and borough-owned land adjacent to at-risk communities. Private landowners in those communities will receive targeted outreach in the form of forest stewardship plans and cost-share grants to allow landowners to reduce hazardous fuel accumulations and maintain forest health and productivity.

## 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. As part of the national Wildfire Community Preparedness Day, Forest Stewardship staff participated at multiple locations, giving tree seedlings to homeowners, forestry information, and hazardous fuel reduction advice, alongside Department of Homeland Security personnel providing all-hazard preparedness information.

## Forest Stewardship Staff

The Forest Stewardship Program Manager is Trevor DoBell-Carlsson. Jim Smith is the Stewardship Forester in Fairbanks, and John Winters is the Stewardship Forester for the Kenai Peninsula. Stephen Nickel serves as Stewardship Forester for Anchorage and the Mat-Su (in addition to his position in Community Forestry), and Jim Schwarber assists in Fairbanks.



Fairbanks residence and black spruce, which can be a hazardous fuel, before treatment. *Photo by Jim Smith*



Fairbanks residence after hazardous fuel reduction as part of a forest stewardship plan, using a WUI grant. Homeowner's best friend approves of his now Firewise property. *Photo by Jim Smith*



# Fire Suppression & Preparedness

## 2017 Alaska Wildfire Season

Despite one of the warmest summers on record, Alaska experienced a second straight below-average fire season in 2017. A total of 362 fires burned 653,148 acres in Alaska, according to statistics compiled by the Alaska Interagency Coordination Center. That's about half the acres that are burned in an average Alaska fire season. As is usually the case, most fires (200 of 362) were caused by human activity while the remainder were started by lightning.

June through August ranked as the fourth-warmest summer on record in Fairbanks but ample rainfall in the Interior and around much of the state kept fuels moist enough to keep wildfires at bay. While there were bursts of fire activity at different times in different parts of the state, things remained relatively quiet in Division of Forestry protection areas.

Most fire activity, at least in terms of acres burned, occurred in Bureau of Land Management Alaska Fire Service (AFS) protection areas, where 169 fires burned 571,557 acres. This accounted for 87 percent of the total acreage burned in Alaska in 2017.

In DOF protection areas, 170 fires burned 81,345 acres, which is only 12 percent of the total acreage burned. The bulk of this acreage was in the Southwest Area, where 25 fires burned an estimated 69,735 acres. In addition to the 170 fires, there were 154 prevention actions taken in DOF protection areas in 2017.

The U.S. Forest Service had 14 fires that burned about two acres.

The AFS Upper Yukon Zone was by far the busiest area this year with 59 fires burning approximately 410,173 acres, or 63 percent of the total acreage burned statewide. While many areas around the state received considerable rainfall throughout the summer, that was not the case in the Upper Yukon Zone, which remained dry well into July. The dry conditions enabled lightning-caused fires to burn and smolder.

Many of the fires in the Upper Yukon Zone were in the Arctic National Wildlife Refuge, the primary reason why the U.S. Fish and Wildlife Service recorded more burned acreage – 467,418 acres – than any other landowner in Alaska.

Given the low level of fire activity in Alaska, very few resources were imported from the Lower 48. No Outside crews were brought up to Alaska and only 26 overhead personnel and 44 smokejumper boosters were ordered to assist on Alaska fires.

No structures were burned by wildfires in 2017 and there were no serious injuries reported by firefighting personnel. Below is a rundown of wildfire activity in Division of Forestry protection areas for the 2017 season:

### Delta Area

The Delta Area had the fewest number of fires and fewest acres burned of any of the state's seven protection areas, with only nine fires burning 29 acres.



Milepost 308.5 Richardson Highway Fire.  
Photo by Jamie Kennedy



South Fork Salcha Fire.  
Photo by Tim Whitesell

## Fairbanks Area

The Fairbanks Area had a total of 36 fires that burned 8,421 acres. Most of that acreage was due to the 8,344-acre **South Fork Salcha Fire**. This lightning-caused fire was reported on June 8 about 70 miles southeast of Fairbanks. The fire grew quickly and put up a large smoke column that was visible from Fairbanks and Delta Junction. However, the fire was in a limited suppression management area and did not pose a threat, therefore no suppression action was taken. As it turned out, Mother Nature responded with more than two inches of rain a few days after the fire started to put a major damper on the fire.

Probably the most exciting fire of the season in the Fairbanks Area was the 15-acre **Mile 308.5 Richardson Highway Fire** on June 19. The fire began parallel to the Richardson Highway, about two miles north of Birch Lake. Due to its proximity to the highway and two subdivisions, the fire merited an aggressive aerial and ground response. The fire caused the Alaska Highway to be closed for a short time and motorists parked along the highway got a good view of water-scooping aircraft and helicopters dropping water on the fire from nearby Birch Lake.

## Kenai/Kodiak Area

The hottest news in the Kenai/Kodiak Area was the 1,016-acre **East Fork Fire**, which accounted for the bulk of the 1,112 acres burned by the Area's 20 fires. Lightning caused the fire on June 15 in a sea of black spruce in the Kenai National Wildlife Refuge, about five miles north of the Sterling Highway and the community of Sterling.

The fire started in a limited protection area but due to the extreme initial fire behavior and the fire's proximity to local infrastructure, the U.S. Fish and Wildlife Service requested suppression action on a portion of the fire. A Type 3 incident management team was ordered and Forestry fire managers coordinated with the USF&WS to manage the fire for ecological benefits in the refuge.

Winds out of the south pushed the fire to the north and east, further into the refuge and away from Sterling and the Sterling Highway. The fire doubled in size by June 17 to 850 acres and additional personnel were brought in to keep it from threatening the highway and community. Water-scooping aircraft were used to make strategic water drops on the south and west sides of the fire to keep it from spreading in those directions.

Fire managers worked with Kenai National Wildlife Refuge staff to develop a plan for a large burnout operation to remove a continuous stand of black spruce along the southwest portion of the fire that posed a threat to Sterling. The plan involved using the 30-foot wide Enstar natural gas pipeline right-of-way as a firebreak. However, the fire received rain on June 20, reducing fire behavior and putting the planned burnout operation on hold. Conditions remained cool and damp for the next two days, prompting fire managers to begin demobilizing the nearly 150 personnel assigned to the fire.

## Mat-Su Area

The Mat-Su Area had 54 fires, the most of any state-protected area. However, most of the 1,060 acres burned resulted from the 980-acre **Talkeetna River Fire**. The lightning-caused fire in a limited protection area was allowed to burn until rain put it out.

The fire that drew the biggest response in the Mat-Su Area was the 56-acre **Kahiltna Fire** located near the Kahiltna River about 80 miles northwest of Wasilla. The lightning-caused fire started on June 25 in a modified protection area. With the help of multiple retardant drops and substantial rain, the approximately 40 personnel that responded to the fire had it 100 percent contained within three days.



Participants in DOF Prevention Workshop at Mat-Su Area office in Palmer. Back row (L-R) John Graft, Tetlin National Wildlife Refuge; Neal Charlie, Fairbanks Area; Tom Greiling, DOF Safety Officer; Mike Goyette, Delta Area; Don York, Tok Area; Ted Morris, Tok Area; Gabe Pease-Madore, Delta Area; Russ Spargo, Mat-Su Area. Front row (L-R) Tim Mowry, DOF Public Information Officer; Don Anderson, Fairbanks Area; Robin Ace, Mat-Su Area; Darren Finley, Kenai/Kodiak Area; Dan Govoni, Kenai/Kodiak Area. *Photo by Melody Diemyer*



## 2017 Alaska Wildfire Season (cont.)

### Southwest Area

The Southwest Area was the busiest of the state's seven protection areas with 25 fires burning an estimated 69,735 acres. More than half those fires resulted from a lightning bust that moved through the Kuskokwim River valley on June 4, igniting 15 fires between Dillingham and McGrath. About half the fires were in limited protection areas and no suppression action was warranted but other fires did require responses to protect structures and people.

The 2,653-acre **Bell Creek Fire** posed the biggest threat and drew the biggest response of the fires in the Southwest Area. Located about 110 miles southwest of McGrath along the Kuskokwim River, the fire threatened the village of Crooked Creek two miles to the south. A Type 3 team with more than 70 personnel kept it from encroaching on the village.

At 16,824 acres the **Pitka Fork Fire**, approximately 60 miles east of McGrath, was the largest fire in the Southwest Area. Though the fire was burning in a limited protection area, smokejumpers and two crews were deployed to set up protection around cabins and other structures threatened by the fire. Multiple retardant drops were also used to help protect structures.

Mother Nature assisted suppression efforts in the form of widespread rain on June 8 and 9, which quelled fire activity in the Southwest Area and helped firefighters bring all the fires under control.

### Tok Area

The first big fire of 2017 in the Tok Area was the 832-acre **North Robertson Fire**, which accounted for the majority of the estimated 883 acres burned by 14 fires in the Area. The North Robertson Fire was a human-caused wildfire that started on June 1 about 30 miles northwest of Tok. It was approximately two miles west of the Alaska Highway near Milepost 1352 and two miles north of the Robertson River.

Fueled by a mass of black spruce, the fire grew quickly despite an aggressive aerial initial attack. The fire grew from two acres when it was reported at 10:21, to 15 acres by noon and 550 acres by 5 p.m. Air tankers slowed the spread of the fire until two loads of smokejumpers and five initial attack crews arrived.

By June 2, the North Robertson Fire was estimated at 800 acres and more than 200 personnel were mobilized to fight the blaze. The fire threatened a handful of homes and recreational cabins to the north and west of the fire but no structures were burned. The Alaska Highway remained open for the duration of the fire, as a west wind pushed the fire and smoke southwest away from the highway.

A Type 3 team took over management of the fire on June 3 and firefighters were assisted by cooler temperatures, higher relative humidity, and scattered rain showers. By June 5, containment was estimated at 30 percent and crews began mopping up containment lines. Heavy rain fell overnight on June 10 and the fire was turned over to a smaller, Type 4 organization on June 12.



A member of the Tanana Chiefs Conference Type 2 Initial Attack Crew digs line on the North Robertson Fire near Tok.

*Photo by Sam Harrel*



## Valdez/Copper River Area

While it was one of the driest areas in the state much of the summer, the Valdez/Copper River Area remained relatively quiet most of the season. The Area recorded only 12 fires that burned about 105 acres.

Most of that acreage was a result of the late-season, 98-acre **Chistochina Fire** that started on August 4 near Mile 36.5 of the Tok Cutoff. Though many of Alaska's firefighting resources had already been deployed to fires in the Lower 48, a strong interagency response from DOF and the BLM-Alaska Fire Service helped keep the fire from threatening the village of Chistochina. The fire was reported to be only one-eighth of a mile from the road and three structures were initially threatened by the fast-moving fire burning in black spruce. Four water-scooping aircraft from the AFS and one state-contracted helicopter from Tok dropped water on the fire while 16 smokejumpers from the AFS, three engines from the Tok Area DOF office, and two water tenders from the Gakona Volunteer Fire Department worked from the ground.

The quick response helped stop the fire about 100 yards from the residences, the highway, and a construction camp. Three Type 2 crews were brought in to mop up the fire, which was 100 percent contained on August 8.

## Resources Mobilized in 2017

### Aircraft:

- 250 orders filled
- 56 smokejumper initial attack loads (427 smokejumpers)
- 38 rotor-wing orders
- 156 fixed-wing orders

### Crews:

- 70 Alaska orders
- 122 Lower 48 orders
- 3 Type 1 crews
- 5 Type 2 IA crews
- 28 EFF Type 2 crews

### Overhead:

- 1,664 Alaskans (single resources, team and crew members)
- 3,537 orders filled (673 filled by trainees)
- 1,484 orders for Alaska incidents (26 overhead from Lower 48 and 44 smokejumper boosters)
- 2,053 orders filled for Lower 48 incidents

### Supplies:

- 14,952 Meals Ready to Eat (MREs)
- 859 fresh food boxes
- 69,900 feet of 1½" hose
- 86,300 feet of 1" hose
- 42 sprinkler kits
- 79 pump kits
- 59 chainsaw kits

The Pioneer Peak Interagency Hotshot Crew unloads a helicopter at the North Robertson Fire near Tok.  
*Photo by Sam Harrel*



## Alaska Firefighters Answer Call to Help in Lower 48

While the 2017 fire season in Alaska was unremarkable, that was not the case in the Lower 48. The Division of Forestry was called on to assist in an intense fire season in the West. Alaska firefighting personnel worked in 10 states: California, Colorado, Idaho, Montana, Nevada, Nebraska, Oregon, Utah, Washington, and Wyoming. The states where the most assistance was sent were Montana with 330 orders filled, Oregon with 209, and Nevada with 133.

The number of Alaska personnel in the Lower 48 reached a peak of 740 in late August and some of those employees worked well into October when heavy rain – and in some areas snow – helped quell fire activity.

All six DOF agency crews: Pioneer Peak, Gannett Glacier, White Mountain, Yukon, Tanana Chiefs Conference, and University of Alaska Fairbanks traveled to the Lower 48 for multiple fire assignments. Five of those crews spent two and one-half months working in western states. In addition, 13 DOF-sponsored Type 2 emergency firefighting crews were sent south, making it one of the busiest seasons ever for EFF crews in terms of Outside assignments. Given the small number of EFF crews that were mobilized for in-state work, the late-season activity proved to be a major financial boon for Alaska's EFF crews and the state's economy.

All totaled, Alaska personnel filled 2,053 orders for Lower 48 assignments. The Division of Forestry deployed more resources than any Alaska agency. Other Alaska agencies that sent personnel to the Lower 48 were the Bureau of Land Management, U.S. Forest Service, National Park Service, U.S. Fish and Wildlife Service, and National Weather Service.

The Alaska Type 1 Interagency Incident Management Team (IMT), under command of DOF Wildland Fire & Aviation Program Manager Tom Kurth, deployed three times – twice in Oregon and once in Montana. It marked the first season that the Alaska IMT was deployed outside of Alaska multiple times.

In late July, the team was ordered to Billings, Montana due to high fire danger and predicted lightning. Shortly after arriving, the team was assigned to the emerging Buffalo Fire, about 30 miles southwest of Broadus, Montana, as well as the Stallions Fire just across the Wyoming border. Due to precipitation and cloud cover, both were short-lived incidents and returned to local units by the end of the month.

The Alaska IMT was then assigned to the Bruner Mountain Fire on July 30. The Bruner Mountain Fire (418 acres) located 12 miles southeast of Roundup, Montana, was 65 percent contained when the team took command. It was fully contained on July 31 and transferred to a Type 4 organization on August 3.



Alaska Interagency Incident Management Team Incident Commander Tom Kurth speaks to the public in Glide, Oregon on the status of the Umpqua North Complex Fire.  
*Photo by Tim Mowry*



Alaska Division of Forestry Public Information Officer Sam Harrel being interviewed by a reporter on the Umpqua North Complex Fire in Oregon.  
*Photographer unknown*



Following the Bruner Mountain Fire, the Northern Rockies Geographical Area Coordination Center requested the Alaska IMT to form task forces to assist eastern Montana with initial attack covering three zones dispatched out of Billings, Lewistown and Miles City. Over the next four days, the team responded to two incidents before cooler, wetter weather moved in and the team was demobilized on August 6.

Less than a week after returning home, the team was ordered for its second assignment in the Umpqua National Forest in southern Oregon. A lightning bust on August 8-9 ignited more than 25 fires in the Forest and local resources were quickly overwhelmed. The Alaska IMT assumed command of the Umpqua North Complex on August 14.

Once in place, the team developed a strategy for managing the complex of fires. Fires were split into seven geographically identifiable clusters and prioritized based on their threat to private property, critical infrastructure, commercial timber, and other values associated with a highway that ran through the Forest.

Evacuation orders and advisories were issued for several areas threatened by the fire. Suppression and containment efforts were hampered by steep terrain, hazardous trees, rolling rocks, and heavy smoke that limited the use of aircraft.

The danger of trees and rocks falling on the road prompted the Oregon Department of Transportation to close a section of the highway leading to Crater Lake National Park for about two weeks. The U.S. Forest Service issued eight closure orders in the Forest to ensure public safety.

The solar eclipse was on August 21 and fire managers, concerned that heavy traffic from eclipse watchers could impact the incident, prepared a contingency plan. The road closure, however, forced motorists to drive around the complex, resulting in few eclipse-related complications.

The total acreage for the complex stood at 25,358 acres with 21 percent containment on August 31; the Alaska IMT transferred command to California IMT4 on September 1.

The team's third and final assignment was the Horse Creek Complex and Rebel Fire in the Willamette National Forest, approximately 40 miles west of Bend, Oregon. The IMT assumed control of the incidents on September 12 when the complex, consisting of five different fires, totaled 25,157 acres and the Rebel Fire stood at 7,777 acres.

The Horse Creek Complex and Rebel Fire were burning in steep, rugged terrain, mostly within the Three Sisters Wilderness. The steep terrain and fact that the fires were burning in designated wilderness made direct suppression tactics extremely difficult and dangerous, forcing fire managers to employ indirect tactics focusing on structure protection and indirect line construction. In addition, heavy smoke during the first 10 days of the assignment limited air operations, preventing fire managers from getting good aerial observations of the entire fire area.

Below: White Mountain Crew. Back row (L-R) Owen Smith, Scotty Shears, Robert Wallace, Nicholas Connell, Jacob Hollander, Kevin Currier, Colton Meier, Adam Burris, Brad Bishop. Front row (L-R) Nick Biedscheid, Brady Snyder, Craig Fleener Jr., Mekiah Stansel, Sam Allen, Tyler Nasti, Autumn Strohm, Ernest Prax, Ronald Kendall, Karen Schuster.





## Alaska Firefighters Answer Call to Help in Lower 48 (cont.)

County officials put evacuation alerts in place for the numerous communities adjacent to the Three Sisters Wilderness, putting residents on edge given the prolonged hot, dry weather. Three fires were burning adjacent to National Scenic Byways and two scenic byways were closed due to fire activity.

The incident featured unique challenges, one of which was that the Alaska IMT shared an Incident Command Post at the Hoo Doo Ski Resort with the Northwest Type 2 IMT, which was managing the nearby Whitewater Fire, also in the Willamette National Forest. Another challenge was a cold front that moved into the area bringing rain and snow. Over the course of five days (Sept. 17-21), five to six inches of rain fell over much of the area and more than a foot of snow was recorded at high elevations. While the rain and snow assisted with suppression efforts, it presented major logistical and operational challenges for firefighter safety, travel and access.

The Alaska team extended its two-week tour by five days to meet most of the objectives before turning over command on September 28. At the time of transition, the Horse Creek Complex stood at 33,346 acres while the Rebel Fire was 8,703 acres. Although isolated areas of the fire were still smoldering, fuels were sufficiently wet that additional fire spread was not anticipated.

Agency administrators gave the Alaska IMT favorable evaluations for all three assignments. The evaluation from the Horse Creek Complex and Rebel Fire described the Alaska IMT as a “well-organized, fun team” with “excellent communicators” who provided “very good facilitation of end state discussion.” The team’s use of drones was also cited. “This allowed for reduced exposure times both in the air and on the road,” the evaluation stated.



The Happy Dog Fire, one of 15 fires in the Umpqua North Complex that was managed by the Alaska Interagency Incident Management Team. Photo by Dan Metz, Oregon Department of Transportation.

Crews	Payroll
Chevak	\$208,361.47
Copper Center	\$123,402.85
Delta	\$222,159.83
Fairbanks	\$1,789,088.69
Hooper Bay	\$221,593.56
McGrath	\$462,623.99
Nikolai	\$165,949.19
Nondalton	\$67,158.58
Palmer	\$857,208.71
Tok	\$601,570.16
Upper Kalskag	\$257,377.33
Scammon Bay	\$28,942.71
Kenai/Soldotna	\$252,000.12
<b>TOTAL</b>	<b>\$5,257,437.19</b>



Operations Section Chief trainee Jon Glover speaks during a public meeting in Glide, Oregon on the status of the Umpqua North Complex Fire.

Photo by Tim Mowry

## Delta Junction Bison Range Prescribed Fire

The Division of Forestry assisted the Department of Fish and Game with a prescribed burn covering 800 acres on the Delta Junction Bison Range in April. The Bison Range, created by the Alaska Legislature in 1979 to perpetuate free-ranging bison, encompasses nearly 90,000 acres north of the Granite Mountains between Granite Creek and the Little Gerstle River, about 20 miles east of Delta Junction along the Alaska Highway.

ADF&G has wanted to reintroduce prescribed fire to the bison range for several years to improve habitat for one of Alaska's largest big game animals. The last time prescribed fire was used on the bison range was in 2012 but that fire burned only 39 acres. In the three decades prior the 2012 burn, prescribed fire was used regularly to maintain productivity on the bison range. But changes in policy and staffing prevented ADF&G from maintaining that burn cycle and willow and aspen began to grow and take over. It wasn't until 2017 that ADF&G dedicated funding to return prescribed fire to the landscape.

With technical expertise provided by the Division of Forestry, ADF&G developed a burn plan to support grass production for bison, hardwood regeneration for moose, and habitat benefits for sharp-tailed grouse.

The plan contained specific parameters to be followed in terms of maximum and minimum wind speeds, temperatures, relative humidity, fuel moisture codes, rate of fire spread, and flame lengths. In addition, a 20-foot fuel break was tilled around each burn unit to prevent the fire from spreading into the surrounding forest.

Conditions for the burn were ideal for the most part. While there were still patches of snow, most of the grass, aspen and willows were dry enough to provide good fuel consumption. The patchy landscape that resulted is just what ADF&G program coordinator Sue Rodman wanted from the burn.

Prescribed burning is an effective and efficient treatment because it is a natural process that stimulates regeneration of grass and hardwoods, and it is cheaper and faster than mechanical treatments.

DOF provided the personnel and equipment to execute the burn and BLM's Alaska Fire Service offered technical expertise, logistical help, and consultation. AFS also supplied a qualified burn boss and used a drone to capture aerial footage and images to document fire behavior and operational procedures. It marked the first time AFS had used a drone on a fire in Alaska.

Delta Area Fire Management Officer Mike Goyette viewed the prescribed burn as a success that provided good training for DOF personnel. While the intent was to burn up to 3,600 acres, some of the ground and fuels were too wet and the size of the burn was scaled back to about 800 acres. But the burn laid the foundation for more prescribed burning on the bison range in future years.

ADF&G plans to monitor and evaluate the vegetative response to the burn and to measure the grass, aspen, and willow that grow back.



Division of Forestry Wildland Fire and Resource Technician Abbie Stillie uses a drip torch to set fire to grass and willow during a prescribed burn on the Delta Junction Bison Range. Photo by Tim Mowry



## Aviation Program

The light fire season resulted in light flight activity as well. The year did bring the division's fifteenth year free of accidents or incidents. Every employee in the Aviation Program deserves credit for helping attain a high level of safety, which is always the top priority. Training for fire missions is also at the top of the priority list because safety is not possible without a trained workforce.

The turbine Commander and Shrike 500 contributed well over half the flight hours to the Aviation Program totals this year. Pilot Doug Burts and Air Attack Tim Whitesell took the Commander 1000 on assignment to the Lower 48 in late July and didn't return until 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, acquired through the U.S. Forest Service Federal Excess Property Program, and the Commander 840 remained on duty in Alaska. The division's four aircraft totaled 843 flight hours.

This was the last season 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. These airtankers flew 82 hours and dropped over 183,000 gallons of retardant in Alaska.

In response to the early southwest fire season, the division called on Northwest Compact partner British Columbia to assist with a Convair Tanker group from Penticton, BC. The three aircraft flew a total of 60 hours and dropped 18,000 gallons of retardant.

The Division released the contracted airtankers in mid-July, and in compliance with the contract, one tanker was requested by British Columbia and one by the U.S. Forest Service for duty in the lower 48. Through contract extensions they remained on duty until the end of September.

Soloy Helicopters provided two type 2 helicopters, located in Palmer and Fairbanks under a long-term contract. Rogers Helicopters provided three type 2 helicopters, one each in Soldotna, McGrath, and Delta. Temsco helicopters provided a contract helicopter in Tok. The rotorcraft provided platforms for initial attack helitack and logistical support. The aircraft flew 308 hours.

On November 1, Chief Pilot Doug Burts, who was on seasonal leave, accepted a 120-day assignment in New South Wales, Australia as a contract Bird Dog pilot. The Aussies have Bird Dog planes similar to state aircraft. They also contracted with three tankers from the Lower 48. The knowledge and experience Doug is gaining will benefit the division.

The aviation program saw no changes in pilot, maintenance or administrative staff this year. Aviation Supervisor Steve Elwell extended his thanks for the excellent and professional performance of staff during this fire season. Steve celebrated his twentieth year as a State of Alaska employee.

## State Fire Support

### State Logistics Center

The light fire season in Alaska allowed personnel to accept fire assignments in other states. The state sent 253 individuals to fill 925 overhead orders in 17 states and two orders in Puerto Rico. The assignments to the Lower 48 began on March 1 when an initial attack dispatcher traveled to Arkansas and the last assignment ended on December 29 in Missouri. July and August were the most active months. Each assignment lasts for 14 days and individuals are often moved from one assignment to another without returning to Alaska to use resources more efficiently.

### State Fire Warehouse

The main state fire warehouses are in Fairbanks and Palmer. In 2017, the warehouses issued \$4.2 million in supplies and equipment to in-state incidents. The warehouses also sent supplies worth \$2 million to the Lower 48 to support record-breaking fire activity.

Warehouse personnel went to Palmer and Tok to help during times of high fire activity in those areas. Twelve warehouse employees also traveled to the Lower 48 as individuals or as members of Incident Management Teams to help other states.

The Palmer warehouse hired Chase McCavit as a mechanic in the small engine shop in 2017. Chase had worked in the warehouse for several seasons and brings a fresh perspective to the mechanics' team. Gary Leaming was hired as a mechanic in the Fairbanks shop and brings a wealth of knowledge and experience from years in the private sector.

### Radio Communications

Tim Soliday was hired as Communications Technician in Fairbanks in 2017. Communications staff test and program 900+ radios over the winter to insure all equipment is ready to meet fire season needs. Forestry uses the complex Alaska Land Mobile Radio and National Wildland Fire model systems.

As maintenance of communications infrastructure has become more challenging, the state's Office of Information has not been able to grow to meet the demands of state users such as Forestry. As the division has increased its workload, it appreciates the help provided by Alaska Fire Service radio personnel, especially those in McGrath.



Firefighter Property Program equipment used in communication system on Mt. X near McGrath.  
*Photo by Nathan Skinner*



## Firefighter Property & Federal Excess Personal Property Programs

The Firefighter Property Program, 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 to participate.

In 2017, property that DOF screened and acquired through the FFP Program included pumps, welders, forklifts, and warehouse pallet wrappers. If purchased new, the equipment and supplies would have cost the state approximately \$391,000. In addition, the division acquired equipment, shelters, and towers for its communication system. One site where the equipment was installed is Mt X in Southwest Alaska near McGrath.

In addition, the State Fire Warehouse acquired items from the GSA Store valued at over \$500,000 for only \$13,000. The items and estimated values included water handling equipment (\$250,000); 350 fire shelters (\$100,000), more than 1,200 pieces of fire resistant clothing (\$90,000) plus miscellaneous items such as canteens, hard hats, gloves, and insect repellent.

Through a major effort by Mark Ford in Procurement, the division also sold scrap and excess property that was no longer useable through a GSA auction instead of paying for its disposal. In 2017, the division oversaw the disposal of nine scrap lots and purchasers picked up items at the Eagle River facilities. The items included tool boxes, cabinets, diesel engines, electric motors, radiators, storage tanks, scaffolding, and a trailer.



Firefighter Property Program equipment used in communication system in Beaver. *Photo by Nathan Skinner*

## State Fire Support Forester Retires

Martin Maricle retired in 2017 after 35 years of service to the Alaska Division of Forestry. He first came to Alaska in 1977 to work for the Bureau of Land Management and served as the Chicken Station Manager in 1978-1979. In 1980, he was hired as the division's Anchorage Area Foreman and he went on to hold many positions with the state from the Valdez Copper River Area Forester to, finally, the State Fire Support Forester.

Martin was involved with the National Logistics Workgroup, was a primary member of a National Area Command Team, and taught many incident logistics courses. His all-risk hazard experience includes responding to hurricanes, floods, earthquakes, the Exxon Valdez Oil Spill, World Trade Center attack, and numerous wildland fires. In 2017, Martin traveled to Puerto Rico to assist with the hurricane recovery. His knowledge, experience, and song-writing skills will be greatly missed.

Long-time Fairbanks employee Kathryn (KT) Pyne was hired in September to fill the State Fire Support Forester position vacated by Martin.



Martin Maricle assisting with hurricane recovery in Puerto Rico. He distributed food to thousands of men, women, and children in need of assistance. Martin retired this year after 35 years of service to the Division of Forestry.

## Fire Program Milestones

### Alaska Wildland Fire Coordinating Group

The Alaska Wildland Fire Coordinating Group (AWFCG) entered into a ground-breaking agreement with the Pacific Northwest Geographic Coordination Center this year. The two coordination centers agreed to combine the Type 1 Incident Management Teams (IMT) for the purposes of the National Type 1 IMT rotation. There are now three Alaska Northwest Type I teams instead of two Northwest teams and an Alaska team.

This is beneficial due to the differences in the start and duration of fire seasons in Alaska and the Pacific Northwest and because it adds needed depth for some team positions and improves successional planning. It also maintains the Alaska team's availability during peak fire season and increases opportunities for national assignments. The agreement was signed by the chair, Deputy State Forester Dean Brown and was successfully implemented due to the efforts of Doug Alexander of the U.S. Fish & Wildlife Service.

AWFCG continued its practice of having one or more members visit the Alaska Team during assignments. This allows a member to meet with the host agency, cooperators, and stakeholders; to support the team; gain insight into strengths and areas that need improvement; and to prepare a report. There is a similar practice for the Alaska Type 2 teams.

AWFCG strongly supports the Priority Trainee Program (page #), which assists individuals in gaining qualifications and assignments, identifies specific positions needed on teams, and creates a succession of prepared firefighters for needed ICS team positions. Through this successful program, Norm McDonald attained the qualification of Type 2 Incident Commander and Ed Sanford is a Type 2 Incident Command trainee.



Alaska Wildland Fire Coordinating Group members: (L-R) Bobette Rowe, US Forest Service; Sue Rodman, Alaska Dept. of Fish & Game; Dean Brown, Chair, Alaska Division of Forestry; Larry Weddell, National Park Service; Charlie Sink, Chugachmiut Corp.; Doug Alexander, US Fish & Wildlife Service; Molly Birnbaum, Alaska Dept. of Environmental Conservation; Kent Slaughter, Alaska Fire Service; Will Putman, Tanana Chiefs Council; and Nathan Lojewski, Chugachmiut. *Photo by Keris Berrian*



## Positions Funded by the Alaska Department of Labor

The Alaska Department of Labor funded a pilot program for 18 short-term non-permanent positions for Fiscal Year 2017. The positions were divided into three groups of six employees as Fire Use Modules based out of Mat-Su, McGrath, and Copper River. Positions filled were one Wildland Fire & Resource Technician III, four Wildland Fire & Resource Technicians II, and one Administrative Assistant I in each module.

Of the 18 positions, two were Advanced Academy graduates, one was a Crew Boss Academy graduate, and one was hired on as a permanent seasonal employee with an area office. One of the McGrath positions remained vacant. These positions resulted in 42 initial attack assignments, 21 Alaska fire assignments, and 36 Lower 48 fire assignments.

## Twenty-Year Retirement for Firefighters Secured

The State of Alaska recognizes that the job of a firefighter is arduous and hazardous. However, unlike the federal government and Alaska Public Safety employees, DOF had not in the past been able to reward the service of state firefighters with a 20-year retirement.

In 2017, after many years of work with the Department of Administration, the division secured a ruling that qualifies a large majority of employees who engage in firefighting for a 20-year retirement. The division will continue to work on changes in position classifications that may allow other employees to qualify for a 20-year retirement as well.

## Drone Program Takes Flight in 2017

The Division of Forestry launched an unmanned aerial system (drone) program in 2017 and it proved to be a huge success. Following the lead of the Bureau of Land Management's Alaska Fire Service, DOF purchased six drones for use in the wildland fire program prior to the 2017 season. The drones are small 3D Robotic Solo quadcopters outfitted with GoPro cameras to take photographs and video.

Wildland Fire and Resource Technicians Cal Maki (Mat-Su) and Matt Snyder (Southwest) went through the two-week training to get certified to pilot the drones. Pilots must be FAA certified and drones must be licensed with the same agency. A certified observer is also required to be present during flights.

While DOF has used military and University of Alaska Fairbanks drones on fires in the past, this was the first time DOF used its own drones and pilots. The primary use of the drones is to increase awareness of situations in real time and it allows firefighters to scout line, look for favorable pathways, and avoid hazards.

The drones can be outfitted with either a video camera or an infrared camera capable of detecting size, location, and intensity of fires when conditions are too dangerous or smoky to send in ground teams or helicopters. Field operations staff can view video from the drones live from the fireline, allowing immediate use of the information. It also feeds GPS location data back to base to help clarify fire perimeters.

DOF and BLM AFS are at the forefront nationally in the use of drones on wildfires. In June, Cal Maki became the first person to use a drone on a wildfire when he flew one on the North Robertson Fire near Tok. The Midnight Sun Interagency Hotshot Crew from AFS was the first of over 100 hotshot crews in the U.S. to use a drone, when it also used one on the Robertson Fire. Drones were also used on the Bell Creek Fire in Southwest Alaska and the East Fork Fire on the Kenai Peninsula.

In fact, Alaska had more drone flight hours than any state except Oregon in 2017 and much of Oregon's flight time was due to the work of DOF and AFS pilots while on fires in that state in August and September.

For the season in Alaska and the Lower 48, Maki and Snyder flew a total of 263 flights and accumulated 84 hours of flight time. Most of those flights (163) and much of the flight time (42 hours) was on fires. Drones were also used for resource work (60 flights, 26 hours). The remaining 40 flights and 16 hours were for training.

The Alaska Interagency Incident Management Team was the first of 16 national IMTs to travel to a wildfire incident with an unmanned aerial system division, including equipment and personnel. The Alaska IMT used drones on all three assignments it was deployed to in 2017 – two in Oregon and one in Montana.



Drone on Horse Creek Complex Fire in Oregon.  
*Photo by Tim Mowry*



## Drone Program 2017 (cont.)

Due to heavy smoke that limited the use of aircraft, the Alaska IMT used drones extensively on the Umpqua North Complex in southern Oregon. Maki conducted 78 flights for 16.5 hours. Similarly, the team conducted 75 flights for 10.5 hours on the Horse Creek Complex in the Willamette National Forest.

Willamette National Forest managers noted their appreciation the Alaska IMT's use of drones on the Horse Creek Complex. In DOF's evaluation, they wrote that use of the new technologies allowed for reduced exposure times both in the air and on the ground.

The 3D Robotics Solo drones have an operational range of one-half mile and can be flown to an altitude of 400 feet. The drones must remain in line of sight of the pilot/observer unless a waiver to fly it beyond visual line of sight is granted by the FAA. One of the major limitations is battery life. Each battery provides only about 12 minutes of operational flight time and it takes two hours to recharge a battery, which requires pilots to carry multiple batteries for each mission.

The investment in the drone program was relatively low. The basic setup of a drone with a GoPro costs about \$1,200 and the gimbal to hold and stabilize the camera costs another \$1,200. The system requires about \$1,000 in support equipment. After the initial start-up costs, it's a matter of what kind of capabilities are desired. The unit can also be rigged with terrain modeling and mapping software. An infrared camera, which DOF borrowed from BLM AFS, costs another \$3,400. With all the bells and whistles, including training, the total cost is about \$15,000. That compares to contracted helicopter costs of more than \$1,500 per flight hour.

Based on what DOF fire managers learned in 2017, they are looking to expand the program. In 2018, DOF plans to increase the number of qualified pilots in the division's firefighting ranks and, in cooperation with federal agencies, continue to evaluate the 3D robotics Solo's capabilities. In addition, DOF hopes to cultivate the drone's infrared capabilities and adapt supporting equipment; improve data collection and sharing; and mitigate limitations created by short battery life, recharge time, and recharging in remote locations.

Drones can't replace helicopters but they are a valuable and affordable tool that can help fire managers gather information efficiently while keeping firefighters safe.



Drone captures footage of prescribed fire at the Delta Bison Range.  
*Photo by Tim Mowry*



Prescribed burn on the Delta Junction Bison Range. Photo was taken by a drone.

## 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 the Lower 48

Training offered in the Lower 48 helps meet the need for advanced level training to prepare personnel to serve on Alaska's Incident Management Teams, train future instructors, and provide medical training for the fire medic program. In 2017, five Division of Forestry employees and three emergency firefighters attended seven courses totaling 304 hours. Students attended the following courses: D-310 Support Dispatcher; S-430 Operations Section Chief; D-312 Aviation Dispatcher; S-443 Infrared Specialist; Incident Medical Specialist; S-490 Advanced Wildland Fire Behavior Calculations; and S-346 (L964) All Hazards Situation Unit Leader.

### Instate Training

Most of the training in Alaska is provided through cooperation of the Division of Forestry, the Alaska Fire Service, U.S. Forest Service, National Park Service, U.S. Fish & Wildlife Service, fire departments, and local governments. Many DOF instructors shared their years of experience and subject matter expertise to provide excellent training to students. DOF Area Offices delivered Basic Firefighter courses, fireline safety refreshers, fitness tests, and courses on Pumps, Saws, Initial Attack IC, Squad Boss, and Followership to Leadership. Lower 48 subject matter experts and Alaska instructors under contract also support the training program.

Training met national standards in Incident Command System, Suppression, Aviation, Dispatch, Logistics, Leadership, and Prevention positions. This training is the backbone for developing qualified, experienced personnel to fight fires both in and out of Alaska. Participants were emergency firefighters or from fire departments, local government, federal agencies, the DOF, Division of Homeland Security, Alaska Railroad, and the military.

Courses offered to meet flex plan and wildland fire qualification training requirements included: Dispatch, Suppression, Leadership, ROSS, Prevention, Aviation, Bear Safety, Boating Safety, and the Incident Command System.



White Mountain Type 2 Initial Attack Crew hike up Ester Dome, carrying cubies of water, as part of its physical training in April.  
*Photo by Tim Mowry*

## Instate Training (cont.)

The Incident Commander Type 3 and Type 4 simulation course was conducted for suppression and dispatch personnel. Simulations included scenarios for IC Types 5 thru 3 and Dispatchers at all levels (state and Alaska Interagency Coordination Center). The simulations provided an early season refresher and practice for the coming fire season.

Other suppression skill courses helped develop future Division Group Supervisors, Helicopter Managers, Information Officers, Fire Behavior Analysts, Task Force/Strike Team Leaders, Personnel/Equipment Time Recorders, Helicopter Crew members, Crew Bosses, Heavy Equipment Bosses, Field Observers, Incident Commanders Type 3, and Initial Attack Incident Commanders.

Wildland Fire Behavior courses in the Canadian Forest Fire Danger Rating System (CFFDRS) and the National Fire Danger Rating System taught safety awareness and fire behavior prediction skills to participants. An Alaska field guide reference for CFFDRS Fire Behavior Prediction System and Fire Weather Index System complemented the online S290 Intermediate Fire Behavior class.

Dispatch classes rotate every three years in Alaska. Intelligence Support Dispatcher, Initial Attack Dispatcher, Dispatch Recorder along with the ROSS dispatch mobilization system and the Interagency Dispatch Workshop were presented this year.

Aerial Supervision training refreshed Air Tactical Group Supervisors to take on the role of leading air tankers into fire areas. Helicopter Managers received refresher training to meet national certification requirements.

Several leadership courses were presented for all level of qualifications. Single Resource Bosses, Unit Leaders, Incident Commander Type 3, Division Group Supervisors, and Command and general staff positions received this cutting-edge training in fireline leadership skills.

Specialty training courses were also conducted: Remote Automated Weather Systems Maintenance (to maintain historical weather data), You Will Not Stand Alone (support to families and fire staff following a line of duty death), Facilitative Instructor (future instructor development), Incident Qualification System (national qualifications to respond to incidents), and Warehouse Transportation of Hazardous Materials (safety training). Bear Safety classroom and shooting range training was held in Fairbanks, Palmer, and Soldotna. Boat Safety training was provided by State Parks in Fairbanks, Palmer, and Soldotna.

Forestry and fire department staff attended the FI210 Wildland Fire Origin and Cause Determination class. Several students were red-carded as Wildland Fire Investigator trainees. DOF reached out to local governments to recruit investigators to assist with the work load.

Intermediate and Advanced Incident Command System trainings were provided to meet national qualification requirements including Introduction to Fire Effects, Alaska Prevention, and Alaska Incident Management Team workshops. The University of Alaska Fairbanks conducted a web based session of S203 Basic Information Officer.

2017 was an Alaska Crew Boss Academy year. As many as 24 crew bosses from Type 2 crews can be trained in the two-week academy. This year the DOF filled vacant positions with our level WFRTI/II positions. Academy graduates provided leadership to Type 2 crews throughout Alaska and prepared to become Single Resource Boss-Crew and Engine-qualified.

The division offers courses to meet the training needs of local and structural fire departments across the state including at JBER. This allows them to provide a valuable source of trained, experienced firefighters for fire suppression in populated areas through cooperative agreements.



Forestry also supports crews through agreements with the Tanana Chiefs Conference, Chugachmiut Corporation, and the University of Alaska Fairbanks. Crew support consists of training, issuing red cards, tracking training and experience records, and assisting with mobilization. Administrators from TCC, Chugachmiut, and UAF attended IQS training in 2017.

A new edition of the 310-1, Wildland Fire Qualification System Guide was released in October. The new guide is a significant advancement towards meeting national goals (speed to certification) for wildland fire incident response capability and sustainability.

Additional information is available at: [http://training.nwcg.gov/sect\\_transition\\_information.html](http://training.nwcg.gov/sect_transition_information.html)

An increase in online courses and blended courses allowed students to complete a portion of course work online. This helped students to complete Fire Suppression, ICSm and Aviation courses. Additional information may be found at:

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

## Courses Statewide

Class	Courses	Instructors	Hours	Students
ICS	2	4	40	64
Suppression	19	62	606	354
Dispatch	4	8	120	26
Prevention	2	8	64	29
Leadership	3	5	112	63
Bear & Boat Safety*	9	10	72	183
General Managment	3	0	82	29
<b>Totals</b>	<b>42</b>	<b>97</b>	<b>1,096</b>	<b>748</b>

\*In-House training for DOF personnel

## Students Statewide

Class	DOF	Local Gov't	EFF	Federal	Totals
ICS	30	0	0	34	64
Suppression	164	24	30	136	354
Dispatch	16	0	0	10	26
Prevention	16	7	6	0	29
Leadership	20	0	1	42	63
General Managment	212	0	0	0	212
<b>Totals</b>	<b>458</b>	<b>31</b>	<b>37</b>	<b>222</b>	<b>748</b>

## Priority Trainee Program

The Priority Trainee Program develops an interagency workforce by sending trainees to incidents, assisting them in gaining experience for fire management positions, and succession planning for the Incident Management Teams. There is a shortage of qualified applicants for fire and incident management positions. It is important that the interagency wildland fire community promotes work force development to fill future vacancies. The Alaska Wildland Fire Coordinating Group strongly supports this program.

This was a successful year for the interagency community as 979 priority trainees from across the country worked on their position task books and 92 reported their position task books were recommended for certification upon their return home. Nationally, nine of the ten geographic areas sent priority trainees on out-of-area assignments in 2017. The Northern Rockies was not able to export priority trainees due to its intense fire season.

The Division of Forestry had 88 priority trainee applicants in 2017. Interagency-wide, Alaska mobilized the following priority trainees:

- By ICS Function: Air Operations-14; Command-5; Dispatch-10; Finance-2; Logistics-8; Operations-9; Planning-6.
- By Agency: State-22; USFS-7; BLM-22; NPS-2; FWS-1.
- Out-of-Geographic Area Assignments: Great Basin-10; Northern Ops-4; Northern Rockies-18; Northwest-12; Rocky Mountains-4; Southwest-6.

Priority trainees from the Division of Forestry (EFF included) completed 10 position task books as: Aircraft Dispatcher-2; Support Dispatcher-1; Air Support Group Supervisor-1; Crew Boss-1; Field Observer-1; Fixed Wing Parking Tender-1; Helicopter Manager-1; Incident Commander Type 3-1; Public Information Officer Type 2-1.

Fifteen other DOF priority trainees (EFF included) completed work on their task books in the positions of: Division Group Supervisor-1; Equipment Manager-1; Operations Section Chief T-2-1; Personnel Time Recorder-1; Receiving and Distribution Manager-2; Resource Unit Leader-1; Supply Unit Leader-1; Strike Team Leader-1; Task Force Leader-3; Time Unit Leader-2. Initial Attack Dispatcher

Statewide 281 trainees (including priority trainees) were assigned to incidents.

<b>Incident Command System Section</b>	<b>State Logistics</b>	<b>Fairbanks Area</b>	<b>Delta Area</b>	<b>Tok Area</b>	<b>Valdez/Copper River Area</b>	<b>Mat-Su/ SW</b>	<b>Kenai/ Kodiak</b>	<b>Total</b>
Air Operations	6	8	6	2	0	12	12	46
Command	4	1	0	2	1	1	5	14
Dispatch	13	5	2	9	2	7	2	40
Finance	2	0	0	1	1	0	4	8
Logistics	16	9	1	1	1	4	5	37
Operations	1	7	5	13	9	81	11	127
Planning	0	0	1	0	0	4	2	7
Prevention/ Investigation	0	0	1	1	0	0	0	2
<b>Grand Total</b>	<b>42</b>	<b>30</b>	<b>16</b>	<b>29</b>	<b>14</b>	<b>109</b>	<b>41</b>	<b>281</b>

## National Fire Plan & Wildland Urban Interface Projects

The National Fire Plan was adopted in 2000 to provide grants to states, some 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 supports a variety of educational and mitigation projects, which are described below. Funding comes to the division from the U.S. Forest Service.

### 2017 Projects

#### Initial Attack Fire Fighters

National Fire Plan funding continues to enable the DOF to retain 10 permanent seasonal initial attack firefighters in Palmer, Fairbanks, Soldotna, Delta, and Tok. These firefighters improve initial attack capabilities for 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.

#### Hazardous Fuels Mitigation

##### **Butte Recreational Trails & West Lakes:**

The DOF Gannett Glacier Type 2 Initial Attack 20-person crew resumed work on the Burnt Butte project in May and completed the remaining fuels treatment in the final unit. The crew cut and piled debris 100 feet off the trail. A total of 51 piles (5,765 cubic feet) were constructed for burning. A total of 43 acres of hazardous fuels were treated during the project. Work remaining includes disposal of woody material that was cut and piled, and occasional maintenance of blow down. DOF fire technicians will complete this work as training when fire danger levels allow in 2018.

**West Kenai:** Personnel completed the final 50 acres of hand treatment on this 200-acre project. Dead, standing, beetle-killed trees throughout the entire project area were felled by hand and stacked. The dead trees were limbed and cut into pieces for the public to gather and use as firewood. Personnel also thinned and removed lower limbs of live green trees within 50 feet of public access corridors around the project area. Tree limbs and other woody debris was piled and chipped on site to reduce the risk of wildfire. An estimated 250 cords of firewood were made available to the public.

##### **Caswell Fuel Mitigation Phase I:**

The division will reduce fuels on approximately 320 acres of state and borough land within a high fire risk zone in Caswell. This will help create safe passage into and out of the community. Staff will provide information to the public on the benefits of Firewise principles and creating defensible space around homes. The project will begin in 2018.



Tok Area Prevention Technician Don York (left) delivered a fire danger rating sign to the U.S. Customs and Border Protection Station in Beaver Creek at Mile 1,221.8 of the Alaska Highway. Port Director Corey Daboin (center) and Customs Border Protection Officer George Juelch (right) thanked DOF for the sign, which alerts travelers about the potential for wildfires. The Tok Area office notifies the customs office of fire danger levels daily. *Photo by Jen Moser.*



### **Statewide Prevention and Safe Burning:**

This information and education project is developing statewide public service announcements that address fire prevention, safe burning, and Firewise Principles. This is in conjunction with local fire departments, the Alaska Fire Chiefs Association, and the Alaska Wildland Fire Coordinating Group Prevention & Education Committee. In 2018, public service announcements for television and radio, print ads for newspapers and magazines, and a Firewise web page will be developed. Forestry area offices will staff booths at home and outdoor shows and other civic events around the state to provide information; update, create, and print new Firewise and prevention brochures; and deliver Ready Set Go workshops in communities in Forestry's seven areas of suppression responsibility: Fairbanks, Delta, Tok, Valdez- Copper River, Mat-Su, Southwest District, and Kenai-Kodiak.

### **McGrath, Takotna, Nikolai, Telida:**

Beginning in 2018, personnel will treat hazardous fuels on a total of 196 acres in McGrath, Takotna, Nikolai, and Telida. 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, reducing the risk to homes, school, businesses, and infrastructure. Ten acres will be treated in Telida to protect the historic Russian Orthodox church, and fuels will be cleared around the dumps in McGrath, Takotna, and Nikolai with 28 acres treated in total. A combination of local and Division of Forestry resources will be used to complete the work.

**Kenai Peninsula State Parks Land Hazard Fuel Removal:** During the fall, personnel treated 45 acres by hand on the 133-acre Scout Lake State Park fuels project. The work consisted of hand felling, limbing, and thinning dense stands of spruce intermixed with hardwoods. Remaining trees were spaced 10 feet apart and 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 use public areas was chipped on site to help reduce potential fire intensity. All standing beetle-killed trees were hand felled, cut into smaller pieces, and made available to the public for firewood. Treatment on at least 50 additional acres will be completed during the late summer or early fall of 2018.

### **Alaska Urban Interface Fire Education & Outreach Program:**

Funds will be awarded to Alaska Natural Resources and Outdoor Education to deliver 12 one-credit fire education and prevention courses and to develop online teaching resources for K-12 educators in communities with growing wildland/urban interface areas and increased risk of wildfire. The project will begin early in 2018.

### **Delta Area Hazardous Fuels Reduction & Homeowner Education:**

A partial award was made due to west-wide funding limitations. It will provide Firewise education and 50/50 cost share grants for homeowners to create defensible space in high risk areas by breaking up continuous fuels. Approximately 60 acres on 25 ownerships will be treated in 2018.

## **2018 Projects**

The following projects were awarded National Fire Plan Funding for next year. They are dependent upon receipt of U.S. Forest Service funds in Federal FY 2018.

### **Anchorage Wildfire Mitigation \$300,000:**

The Anchorage Fire Department will reduce fuel loading on 200 acres of private and public lands within the Municipality of Anchorage. Funds will be used to treat fuels in rights-of-way, construct shaded fuel breaks, and offer cost share grants to landowners to reduce fuels. It will encourage residents to create a safe and fire-adapted community.

### **Kenai Peninsula Borough Community Wildfire Protection Plan Updates \$113,700:**

The Kenai Peninsula Borough will update 19 Community Wildfire Protections Plans covering 39 at-risk wildland urban interface communities.

**Copper River Safe Villages \$257,370:** The Copper River Ahtna Intertribal Resource Conservation District will provide wildfire education, emergency planning, Firewise home and structure assessments, and defensible hazard fuels mitigation work in Chistochina, Gulkana, and Gakona. It expects to treat 75 homes and 150 acres.

## Volunteer Fire Assistance Grants to Rural Fire Departments

The Volunteer Fire Assistance 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 US Forest Service and are administered by the Division of Forestry.

In 2017, the VFA Grant Program provided \$242,679.84 to rural fire departments. The division funded 35 of the 36 requests it received from Volunteer Fire Departments for equipment, training, and prevention activities.

<b>Anderson VFD</b>	\$7,496.05
<b>Anchor Point VFD</b>	\$7,500.00
<b>Bayside VFD</b>	\$7,497.00
<b>Bear Creek VFD</b>	\$6,473.67
<b>Bethel VFD</b>	\$7,452.72
<b>Birch Creek Tribal Council</b>	\$7,500.00
<b>Butte VFD</b>	\$7,500.00
<b>Caswell Lakes VFD</b>	\$7,015.00
<b>Central Emergency Services</b>	\$6,602.00
<b>Chenega Bay</b>	\$7,452.00
<b>City of Kenai VFD</b>	\$6,750.00
<b>City of Seward VFD</b>	\$6,473.46
<b>Fort Yukon, City of</b>	\$7,450.00
<b>Gustavus VFD</b>	\$7,101.00
<b>Haines VFD</b>	\$7,185.60
<b>Houston VFD</b>	\$7,020.00
<b>Iliamna</b>	\$7,500.00
<b>Kachemack Emergency Services</b>	\$7,226.00
<b>Kennicott/McCarthy VFD</b>	\$6,727.50
<b>Kongignak VFD</b>	\$4,500.00
<b>Nikiski VFD</b>	\$6,758.00
<b>Ninlichick VFD</b>	\$7,500.00
<b>Northway VFD</b>	\$7,500.00
<b>Nunapitchuk VFD</b>	\$3,754.85
<b>Palmer VFD</b>	\$4,810.00
<b>Port Alsworth VFD</b>	\$7,500.00
<b>Rural Deltana VFD</b>	\$7,500.00
<b>Sitka VFD</b>	\$6,570.00
<b>Steese VFD</b>	\$7,470.00
<b>Strelina VFD</b>	\$7,498.83
<b>Sutton VFD</b>	\$7,347.36
<b>Tok VFD</b>	\$6,049.00
<b>Valdez VFD</b>	\$7,500.00

## Sockeye Fire Trial

Despite the tireless efforts of fire investigators, the Division of Forestry was unsuccessful in prosecuting two defendants charged with starting the 7,220-acre Sockeye Fire that destroyed 55 homes in Willow in June 2015.

The trial was held at the Third Judicial District Courthouse in Palmer in April and May following multiple delays. A jury found the defendants, Amy DeWitt and Greg Imig, not guilty on all charges following the three-week trial. DeWitt and Imig were charged with 12 misdemeanor counts relating to the fire, which DOF fire investigators contend started as the result of an unextinguished debris burn in the yard of a home owned by Imig and DeWitt.

The district attorney's office in Palmer handled the case and Assistant District Attorney Eric Senta was the lead prosecutor for the state. Division of Forestry fire investigators Ethan Eley and Tom Greiling from the Mat-Su Area office were the primary witnesses for the state. Both Eley and Greiling spent considerable time on the witness stand presenting the findings of the investigation and being grilled by defense attorneys. State Deputy Fire Marshals Sven Hall and Nathan Rocheleau assisted with the investigation and supported DOF's findings.

Given the destruction caused by the Sockeye Fire, the trial was emotional and contentious with many witnesses from the fire-affected community of Willow, including Mat-Su Borough Emergency Services first responders and victims who lost homes in the fire. If found guilty, the defendants could have faced jail time and been held liable for up to twice the cost of suppressing the fire, which was approximately \$8 million.

At the invitation of DOF, Eric Senta provided a thorough review of the Sockeye Fire case at DOF's fall fire review in Fairbanks in October. He said the Sockeye Fire case was the "most complex and interesting" one he had ever worked and that DOF developed a strong case and provided good representation of investigative findings throughout the trial.

While the verdict was disappointing to the state, it should not overshadow the fire investigators' work to assemble the case. The division appreciates their efforts and the professionalism they demonstrated throughout the trial. Hopefully the lessons learned from the Sockeye Fire trial will help DOF in future criminal wildfire cases.

At the time this report was written, DOF was still working the Department of Law to determine whether to pursue a civil case against the defendants.



Division of Forestry Fire Investigators Tom Greiling (left) and Ethan Eley (right) reviewing case files during a break from the courtroom.  
*Photo by Russ Spargo*



Sockeye Fire June 14, 2015. *Photo by Rich Webster, Air Attack*



## 2017 Fire Statistics

### 2017 ALASKA WILDFIRES BY AREA AND PROTECTION LEVEL

Cause	Fires	Acres
Human	208	6,897
Lightning	154	646,251
Totals	362	653,148



Critical		Full		Modified		Limited		Totals*	
Fires	Acres	Fires	Acres	Fires	Acres	Fires	Acres	Fires	Acres
110	161	86	57,041	14	2,002	151	593,843	362	653,148

#### State Protected Areas

Area	Critical		Full		Modified		Limited		*Totals	
	Fires	Acres	Fires	Acres	Fires	Acres	Fires	Acres	Fires	Acres
Anch/Mat-Su	48	21.6	4	2.6	1	56	1	979.5	54	1,059.7
Copper River	12	103.5	1	0.1	0	-	1	2.7	14	106.3
Delta	5	26.0	4	0.4	0	-	1	3.0	10	29.4
Fairbanks	16	1.9	18	71.2	0	-	5	8,349.0	39	8,422.1
Kenai/Kodiak	15	4.7	4	0.5	1	91.0	1	1,016.0	21	1,112.2
Southwest*	2	2.1	7	16,723.8	3	648.0	12	52,261.0	25	69,734.9
Tok	8	0.9	4	846.7	0	-	2	35.1	14	882.7
TOTALS	106	160.7	42	17,645.3	5	795	23	62,646.3	177	81,247.3

#### USDA Forest Service- Protected Areas

Forest	Critical		Full		Modified		Limited		Totals	
	Fires	Acres	Fires	Acres	Fires	Acres	Fires	Acres	Fires	Acres
Chugach N.F.	3	0.6	4	0.4	0	-	0	-	7	1.0
Tongass N.F.	0	-	5	1.5	1	0.1	1	0.1	7	1.7
TOTALS	3	0.6	9	1.9	1	0.1	1	0.1	14	2.7

#### BLM Alaska Fire Service -Protected Areas

Zone	Critical		Full		Modified		Limited		Totals	
	Fires	Acres	Fires	Acres	Fires	Acres	Fires	Acres	Fires	Acres
Galena	0	-	17	39,332.0	1	3.8	26	61,477.6	44	100,813.4
Military	1	0.1	12	11.3	0	-	37	353.1	50	364.5
Tanana	0	-	4	35.2	7	1,203.1	48	409,174.8	59	410,413.1
Upper Yukon	0	-	2	15.4	0	-	16	60,191.3	18	60,206.7
TOTALS	1	0.1	35	39,393.9	8	1,206.9	127	531,196.8	171	571,797.7

Data current as of December 22, 2017 and may differ from previously published numbers

\*Total includes one fire on 100 acres of Unplanned Management Option

## 2017 Fire Statistics

### 10 LARGEST FIRE SEASONS ON RECORD

Year	Fires	Acres
2004	701	6,590,140
2015	766	5,144,879
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	171	571,797.7
STATE	177	81,247.3
USFS	14	2.7

### ACRES BURNED BY LANDOWNERSHIP

Landowner	Fires	Acres
Borough	10	4.4
Bureau of Indian Affairs	3	3,115.1
Bureau of Land Management	27	53,728.0
Department of Defense	51	371.1
National Park Service	8	4,012.0
Native Claims Act Land	38	25,859.0
Private	83	881.6
State	74	77,014.5
U.S. Fish & Wildlife Service	62	488,160.8
U.S. Forest Service	6	0.6
Totals*	362	653,147.1

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

### WILDFIRES BY CAUSE

	All Fires		State Protection		AFS Protection		USFS Protection	
	Fires	Acres	Fires	Acres	Fires	Acres	Fires	Acres
Campfire	27	8.6	25	8.4	-	-	2	0.2
Children	1	0.1	1	0.1	-	-	-	-
Debris Burning	39	47.9	37	41.5	1	6.0	1	0.4
Equipment	13	2,146.5	10	3.5	2	2,142.9	1	0.1
Incendiary	48	122.1	3	91.2	45	30.9	-	-
Lightning	156	646,583.9	36	80,081.6	120	566,502.3	-	-
Miscellaneous	41	49.6	39	48.6	-	-	2	1.0
Railroad	-	-	-	-	-	-	-	-
Smoking	-	-	-	-	-	-	-	-
Under Investigator	8	1.3	7	0.9	1	0.4	-	-
Undetermined	29	4,187.7	26	1,072.4	2	3,115.2	1	0.1
<b>Totals</b>	<b>362</b>	<b>653,147.7</b>	<b>184</b>	<b>81,348.2</b>	<b>171</b>	<b>571,797.7</b>	<b>7</b>	<b>1.8</b>

\*Data current as of December 22, 2017

# Employee Recognition

## Arlene Weber-Sword – 25 Years of Service

In 1985 Arlene accepted a position with the Division of Forestry in McGrath as the Lead Logistics and Initial Attack Technician. She had previously worked seven seasons in wildland fire with the Bureau of Land Management and the Alaska Fire Service. From 1995 to 2001 Arlene served as the Division Communications and Technical Systems Coordinator. As the Fire Staff Officer since 2002, Arlene coordinates obtaining and administering federal financial assistance; State Fire Assistance, Volunteer Fire Assistance, and Western WUI grant competitive funding. She also provides general staff support to the fire program.

Since 2002, Arlene has facilitated bringing \$9.6 million in competitive wildland urban interface funding to DOF and its local government cooperators. These funds paid for hazard fuel mitigation, community wildfire protection planning, and fire prevention and education, as well as \$5.4 million in American Recovery and Restoration Act funding for the same type of work. Arlene supports the fire program and suppression efforts during periods of heavy fire activity by taking assignments, primarily in dispatch.

Arlene resides in Girdwood with her family and enjoys reading, art, and ice skating.



Arlene Webber-Sword

## Douglas Albrecht – 20 Years of Service

Doug began his career in Forestry in 1991 as an intern for the Soldotna Forestry office after receiving his Forestry Certificate at AVTEC in Seward. In 1992, Doug was accepted as Forest Technician II at the Big Lake Forestry office. Doug has worked multiple positions with the division, initially focusing on the aviation side of initial attack.

Doug's fondest memories include flying hundreds of hours with some of the best helicopter pilots across the Alaska Range in a Bell 212 on initial attack. Doug was promoted in 1996 to a Forest Technician III, where he managed 13 helicopters on the most devastating wildfire in Alaska, the Miller's Reach Fire.

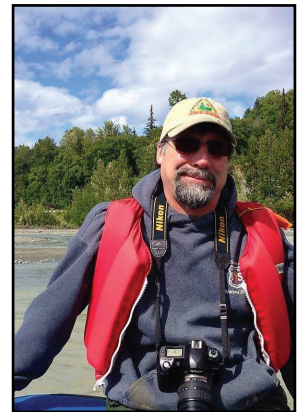
After Forestry moved from Big Lake, Doug was in charge of the Mat-Su Helibase in Palmer. His mission was to design and build the Palmer Helibase literally from the ground up. In 2002, Doug transferred to Mat-Su Prevention. In 2006 he was promoted to Coastal Region Training and Prevention Officer.

Looking back through the years, one person who he especially admired was his first supervisor, Mark Bertels. Mark was not only an excellent wildland firefighter, but also as an experienced woodsman, and Doug's mentor.

In 2008, Doug's position expanded to Statewide Prevention Program Manager. He rebuilt and developed statewide prevention and fire investigation training programs.

Doug fought and investigated hundreds of fires across the state and the nation. He is especially interested in the art and science of investigating wildfires, determining the point of origin and the human behavior aspect of why or how a person started the fires.

Doug accepted a position with the Department of Public Safety in 2017.



Douglas Albrecht



## Steve Elwell – 20 Years of Service

Steve began work for state government in 1997 as the Aviation Supervisor for the Department of Public Safety, where he oversaw the State Troopers' fleet of 46 aircraft and 50 pilots. In 2004, Steve was recruited to fill the same position within the Division of Forestry. He experienced the busiest fire season on record during his first year.

Steve has overseen a transition in the aviation section that now brings six medium helicopters (Type 2) to the division; evolution to all turbine-powered, federally-approved air tankers; sale of the division's Pilatus PC-7 lead plane aircraft and the acquisition of the new lead plane, two turbine powered Twin Commanders.

Steve is involved with wildland fire aviation associations nationally and internationally. He has represented the Association of State Foresters to the Interagency Air Tanker Board and served on the Fire Pilot Accreditation Working Group. Steve is also the state's representative to the Canadian Air Tanker Safety Board.

Steve is a rated 20,000-hour airline transport pilot in both fixed-wing and rotor-wing aircraft; certified multiengine, instrument flight instructor in fixed-wing and rotor-wing; and has an airframe and power plant mechanics rating with inspection authorization. Steve promotes and maintain the Aviation staff's outstanding safety record of zero accidents or incidents.



Steve Elwell

## Diane Lynelle (Aldrighette) Hennessey – 20 Years of Service

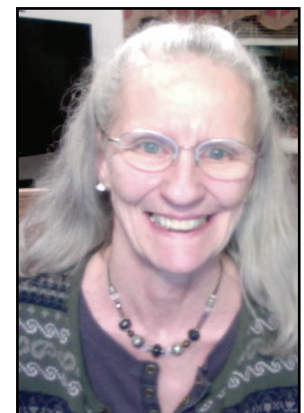
Lynelle has spent most of her life in Alaska. She lived in Anchorage during her early school years and graduated from Lathrop High School in Fairbanks. Lynelle graduated from the Air Traffic Control Academy in Oklahoma City and took assignments in Alaska and California.

In 1980, Lynelle sailed from California to Juneau where she settled for 35 years. She has four children who were all born and raised in Juneau.

Lynelle has worked for federal and state agencies in Juneau and owned and operated businesses including the Southeast Exposure camera store, Videoland, and Bikeland/Eagle Sports. She has spent many years learning different aspects of accounting, including payroll and business and grant accounting.

Lynelle visited Anchorage in 2012 to attend a high school reunion and decided to move back. In 2014, Lynelle was hired by the Division of Forestry and is the Grant Accountant.

In July of 2016 Lynelle met her match (through match.com) in Steve Hennessey and they were married in August 2017. Lynelle will retire in June 2018 with nearly 22 years of state service. She plans to stay in Alaska with enjoy four-wheeling, fat-tire biking, kayaking, and ocean cruising.



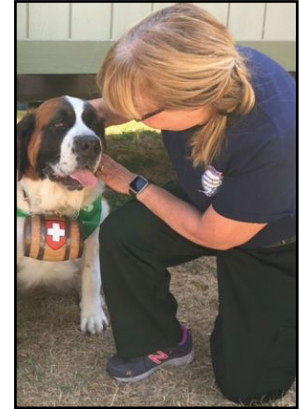
Diane Lynelle Hennessey

## Kathryn Pyne – 20 Years of Service

KT's career in natural resources began with the BLM where she worked as a Land Law Examiner and completed a three-year commitment (1988-1990) under the Fire Familiarization Program. At the same time, she was part of the FFP crew, which followed the Chena and Midnight Sun crews to complete mop up. She traveled to Galena in 1988 for the Kiana Dune fire and to Idaho that fall. In 1989, she worked on fires in Flat, McGrath, and the Lower 48. In 1990 she accepted a dispatch assignment to Fairbanks Area working for Sue Clark. Following that assignment, KT transferred to BLM in a seasonal position at Alaska Fire Service. She also completed her BS in Biology and her Master's Degree in Natural Resource Management at UAF, in addition to her Associate degree in Veterinary Technology.

In 1996, KT accepted a full time seasonal dispatch position at Delta Forestry but transferred a few weeks later to McGrath where she worked for three seasons. Fairbanks Area FMO Tom Kurth hired KT as the Lead Dispatch for Fairbanks Area and from there she advanced through several positions: Stewardship Forester in the interior, statewide Communications Forester, Fairbanks Area Forester, Planner, and Fire Support Forester since last September.

KT arrived in Alaska with her family in 1961, at the urging of a family friend, where her father found work as an engineer for the Department of Transportation. Four families moved together from Michigan. KT is an active member of professional and community organizations: the Society of American Foresters and secretary of the Yukon River Chapter, the Interior Fire Chief's Association, Chena Goldstream Fire & Rescue Board, and Fairbanks North Star Borough Land Management Advisory Commission.



Kathryn Pyne

## Brian Carver – 15 years of Service

Brian began his fire career in 1994 as a crew member working on the Mat-Su Crew and on the Tazlina Hotshot Crew. Brian worked as an emergency firefighter for six years serving on engines, Helitack, and hand crews throughout the summer. He also served his community as a structural firefighter during the winter months.

In 1999, Brian was hired by the Division of Forestry, Mat-Su Area, as an initial attack firefighter. Over the years Brian has dedicated himself as a student of fire, actively gaining knowledge and experience both as a wildland firefighter and Assistant Chief for Structural Fire and Rescue.

In 2013, Brian accepted the Operations Foreman position with the Mat-Su Area and he continues to serve the division by providing leadership for the initial attack staff. In addition, Brian helps the DOF communications effort with radio programming and installations for the engine fleet. Brian also instructs both statewide and local level classes. Brian's supervisor said he is well respected as a leader and mentor.



Brian Carver

## Keri Groenwald – 15 years of service

Keri started with Forestry in 1985 in the Fairbanks warehouse where she worked for three years for Bill Simonsma and Gail Kauffman. She grew up in Wasilla and returned in 1990 to accept a position in the Mat-Su Area Office in suppression as an initial attack emergency firefighter. The office was located on the south side of Big Lake on a knoll with a helipad and two small residential houses converted into dispatch, a suppression base, and a small garage/shop, with a spectacular view of the lake and Mt. McKinley (now Denali). In June 1990, she took a Tech II position in Big Lake, worked her way to Tech III and stayed for 10 seasons.



Keri Groenwald

Keri was with Dave Dolphi on the first initial attack engine to reach the Miller's Reach Fire in 1996. They set up a tank on Miller's Landing and got a hose going into the fire. Keri remembers Dave as always professional and calm. The two worked nonstop until 4am, by which time Forestry had the biggest urban interface fire in Alaskan history on its hands. Keri was released about 10 am to return to the Trunk Road Center and initial attack. It was a fire that changed many lives.

In 2000, Keri was hired by Gary Withee in the Eagle River Warehouse, a hub supplying fires from Mat-Su, to Kenai, McGrath and Southwest Alaska. She and Gary helped move the warehouse to its current location in Palmer when that facility was built. She recalls an all-out effort by everyone to set up the new warehouse with salvaged racks and shelving and move all the inventory.

Keri is a talented stained-glass artist who sells her wares in the valley. She enjoys traveling, gardening, ice skating on Lake Wasilla, and cycling tours. Her brother Mark invented fat tire bikes in Palmer in the early 1990s. Many will recall when he left Forestry and opened his bike shop in Palmer. Keri enjoys her husky Leon and her 21-year-old cockatiel, Tweety. Keri said "I have enjoyed my career a LOT. All the people I've worked with over the years have been a bonus!" You'll find Keri in the Palmer warehouse for a few more years.

## Obituary

### Sue Braund-Clark

*February 28, 1943 – October 15, 2017*

Forestry 'old-timers' and many others who worked with Sue during her 32-year career, turned out at the Viking Hall for a celebration of her life. Sue started as a warehouse worker in Fairbanks in 1986, moved on to dispatcher for fires in Alaska and the Lower 48, and was the Fire Accountant for the Division of Forestry from 2001 until her passing.



Sue was on the first Alaska FEMA fire in Tok in 1989 and was recognized for excellence in the fiscal package the state presented for reimbursement. Over the years her experience and understanding of Alaska's fire program from warehouse through dispatch, in state and out, and fiscally at the division and state budget levels were a tremendous asset to the division. She even led her daughter Sam into working EFF for Forestry before she started her own business! Her quick wit, sense of humor, and broad perspective on forestry and fire issues are missed.





**2017 Actuals***NOTE: Dollar figures are in thousands (e.g., \$27.5 is \$27,500.00)*

<b>Funding Sources</b>	<b>Forest Mgmt &amp; Development</b>	<b>Fire Preparedness</b>	<b>Fire Activity</b>	<b>Totals</b>
General Funds	\$2,236.6	\$15,691.6	\$23,466.1	\$41,394.3
Federal Funds	\$1,955.6	\$1,535.7	\$19,573.6	\$23,064.9
Capital Improvement	\$0.0		15.2	\$15.2
Interagency Receipts	\$316.4	\$139.9	-	\$456.3
Timber Receipts	\$530.8	-	-	\$530.8
Other (SDPR)	\$27.5	-	\$0.0	\$27.5
<b>TOTALS</b>	<b>\$5,066.9</b>	<b>\$17,367.2</b>	<b>\$43,054.9</b>	<b>\$65,489.0</b>

**POSITIONS**

Permanent Full-Time	30	29	-	59
Permanent Part-Time /Seasonal	4	169	-	173
Non Permanent	7	-	-	7

**Forest Management & Development Component**

<b>Renewable Resource Development &amp; Sales</b>	<b>Coastal Region</b>	<b>Northern Region</b>	<b>Statewide</b>	<b>Totals</b>
Board of Forestry	-	-	\$11.3	\$11.3
Forest Practices			\$223.2	\$223.2
Forest Management	\$621.1	\$465.0	\$943.7	\$2,029.8
Interagency Receipts	\$22.5	\$16.8	\$277.1	\$316.4
Stat. Desig. Program Receipts (SDPR)	\$27.5	-	\$0.0	\$27.5
Federal Cooperative Forestry Assistance	-	-	\$1,955.6	\$1,955.6
Capital Improvement Receipts (Other)	\$0.0	\$0.0	\$0.0	\$0.0
<i>Subtotals</i>	\$671.1	\$481.8	\$3,410.9	\$4,563.8
Director's Office	-	-	\$503.1	\$503.1
<b>Component Totals</b>	<b>\$671.1</b>	<b>\$481.8</b>	<b>\$3,914.0</b>	<b>\$5,066.9</b>

**Fire Suppression Preparedness Component**

	<b>Coastal Region</b>	<b>Northern Region</b>	<b>Statewide</b>	<b>Totals</b>
Preparedness	\$3,283.7	\$2,022.4	\$10,385.5	\$15,691.6
Interagency Receipts	\$42.0	\$12.0	\$85.9	\$139.9
Federal Cooperative Initial Attack	\$342.7	\$134.1	\$1,058.9	\$1,535.7
Capital Improvement Receipts (Other)		\$0.0	\$0.0	\$0.0
<b>Component Totals</b>	<b>\$3,668.4</b>	<b>\$2,168.5</b>	<b>\$11,530.3</b>	<b>\$17,367.2</b>

**2018 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	\$2,383.1	\$15,985.8	\$5,973.0	\$24,341.9
Federal Funds	\$3,449.4	\$1,494.5	\$11,960.4 *	\$16,904.3
Capital Improvement				
Receipts (Fed, GF, & SDPR)	\$261.3	\$853.7	-	\$1,115.0
Interagency Receipts	\$499.3	\$400.1	-	\$899.4
Timber Receipts	\$994.3	-	-	\$994.3
Other (SDPR)	\$5.0	-	\$1,500.0	\$1,505.0
<b>TOTALS</b>	<b>\$7,592.4</b>	<b>\$18,734.1</b>	<b>\$19,433.4</b>	<b>\$45,759.9</b>

**POSITIONS**

Permanent Full-Time	30	29	-	59
Permanent Part-Time /Seasonal	4	169	-	173
Non-Permanent	7	-	-	7

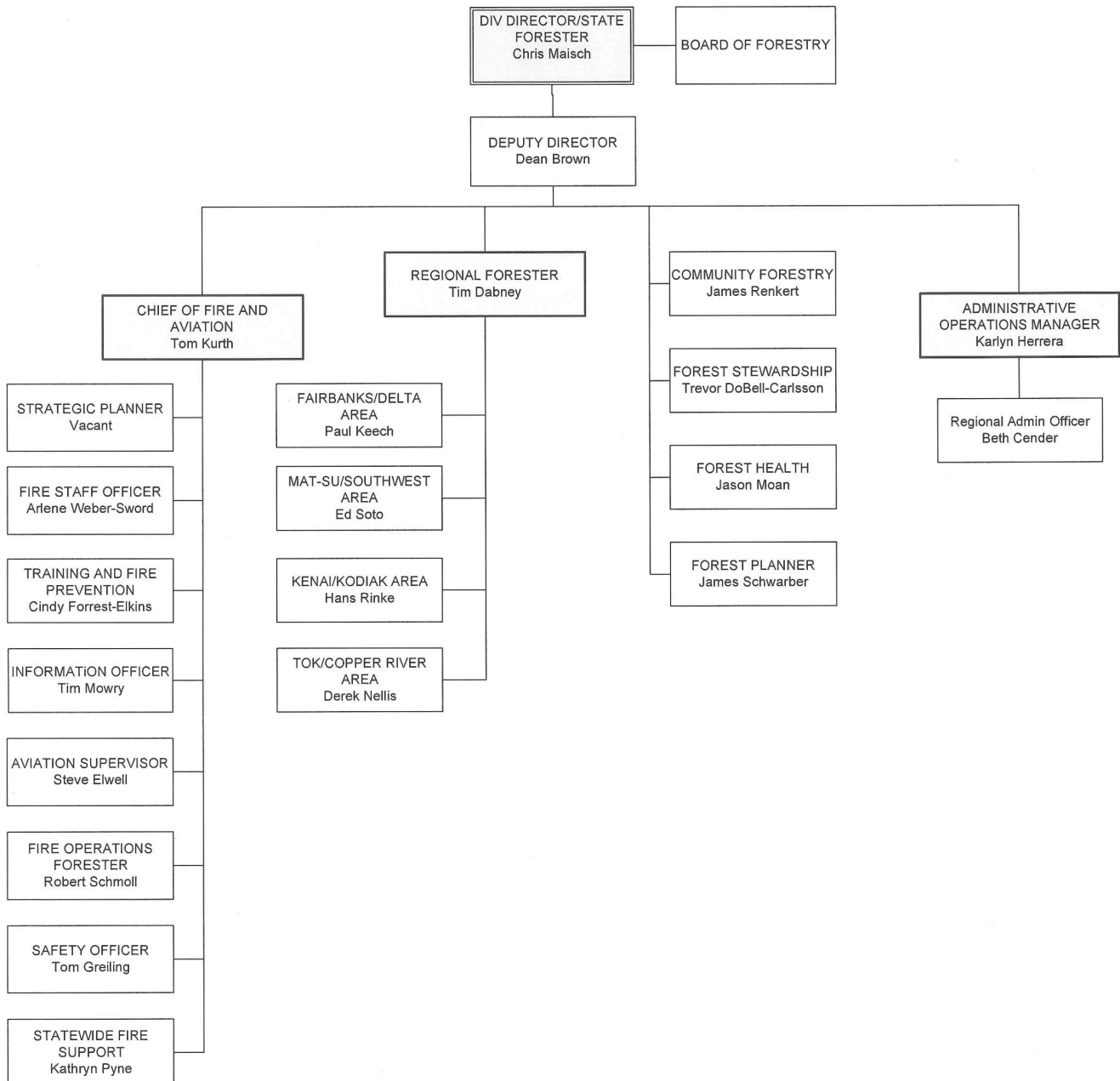
**FOREST MANAGEMENT & DEVELOPMENT COMPONENT**

RENEWABLE RESOURCE DEVELOPMENT & SALES	COASTAL REGION	NORTHERN REGION	STATEWIDE	TOTALS
Board of Forestry	-	-	\$14.3	\$14.3
Forest Practices	\$0.0	-	\$226.0	\$226.0
Forest Management	\$1,085.2	\$568.3	\$1,283.6	\$2,937.1
Forest Inventory and Analysis	\$0.0	-	\$1,100.0	\$1,100.0
Tongass Young Growth			\$1,100.0	\$1,100.0
Interagency Receipts	-	-	\$199.3	\$199.3
Stat. Desig. Program Receipts (SDPR)	-	-	\$5.0	\$5.0
Federal Cooperative				
Forestry Assistance	-	-	\$1,249.4	\$1,249.4
Capital Improvement Receipts (Other)	-	-	\$261.3	\$261.3
<i>Subtotals</i>	\$1,085.2	\$568.3	\$5,438.9	\$7,092.4
Director's Office	-	-	\$500.0	\$500.0
<b>COMPONENT TOTALS</b>	<b>\$1,085.2</b>	<b>\$568.3</b>	<b>\$5,938.9</b>	<b>\$7,592.4</b>

**FIRE SUPPRESSION PREPAREDNESS COMPONENT**

	COASTAL REGION	NORTHERN REGION	STATEWIDE	TOTALS
Preparedness	\$4,124.3	\$2,845.5	\$9,016.0	\$15,985.8
Interagency Receipts	-	-	\$400.1	\$400.1
Federal Cooperative				
Forestry Assistance	-	-	\$1,494.5	\$1,494.5
Capital Improvement Receipts (Other)	-	-	\$853.7	\$853.7
<b>COMPONENT TOTALS</b>	<b>\$4,124.3</b>	<b>\$2,845.5</b>	<b>\$11,764.3</b>	<b>\$18,734.1</b>

# Alaska Division of Forestry Organizational Chart December 2017





## Division of Forestry Directory – December 2017

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

Dean Brown, 269-8476

### Admin. Services Manager

Karlyn Herrera, 269-8477

### Community Forestry Program

Jim Renkert, 269-8465

### Forest Health & Protection

(Insects & Disease)

Jason Moan, 269-8460

### Forest Stewardship Program

(Landowner Assistance)

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

### 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

Jim Schwarber, 451-2704

### State Fire Operations

P.O. Box 35005  
Ft. Wainwright, Alaska 99703  
356-5850 fax 356-5855  
AICC Logistics, 356-5645  
Intelligence, 356-5671  
AICC Coordinator, 356-5682  
Strategic Operations Planner, 356-5858  
Fire Behavior, 356-5847  
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 451-2680

Kathryn Pyne,  
State Fire Support Forester  
State Logistics, 451-2680  
State Fire Warehouse, 451-2640

### Aviation Program

101 Airport Road  
Palmer, Alaska 99645  
761-6271 fax 761-6273  
  
Steve Elwell, Aviation Manager  
Northern Aviation Mgmt, 451-2691  
Coastal Aviation Mgmt, 761-6229

### Regional Forester

101 Airport Road  
Palmer, Alaska 99645  
761-6200  
  
Tim Dabney, Regional Forester

### Fairbanks-Delta Area

3700 Airport Way  
Fairbanks, Alaska 99709-4699  
451-2600 fax 458-6895  
  
Paul Keech, Area Forester  
Fire line, 451-2626  
Fire Operations fax 451-2633  
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  
Fire line, 895-4227

### Tok-Copper River Area

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

### Valdez/Copper River Office

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

### Mat-Su/Southwest Area Office

101 Airport Road  
Palmer, Alaska 99645  
761-6200  
  
Ed Soto, Area Forester  
761-6301 fax 761-6319  
Dispatch, 761-6220  
Fire line, 761-6311  
Burn Permit, 761-6338

### Kenai-Kodiak Area Office

42499 Sterling Highway  
Soldotna, Alaska 99669  
(Mi. 92.5 Sterling Hwy)  
260-4200 fax 260-4205  
  
Hans Rinke, Area Forester  
Fire line, 260-3473  
Burn Permit, 260-4269  
Dispatch, 260-4232

### Southeast Area Office

2417 Tongass Avenue, Suite 213  
Ketchikan, Alaska 99901  
225-3070 fax 247-3070  
  
Area Forester Greg Staunton

### Southwest Area Office (Seasonal)

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



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



Cover: taken by Stewardship Forester Trevor DoBell-Carlsson along the Glenn Highway. He was traveling to provide technical assistance and monitor forest management activities on an Alaska Native Corporation property.