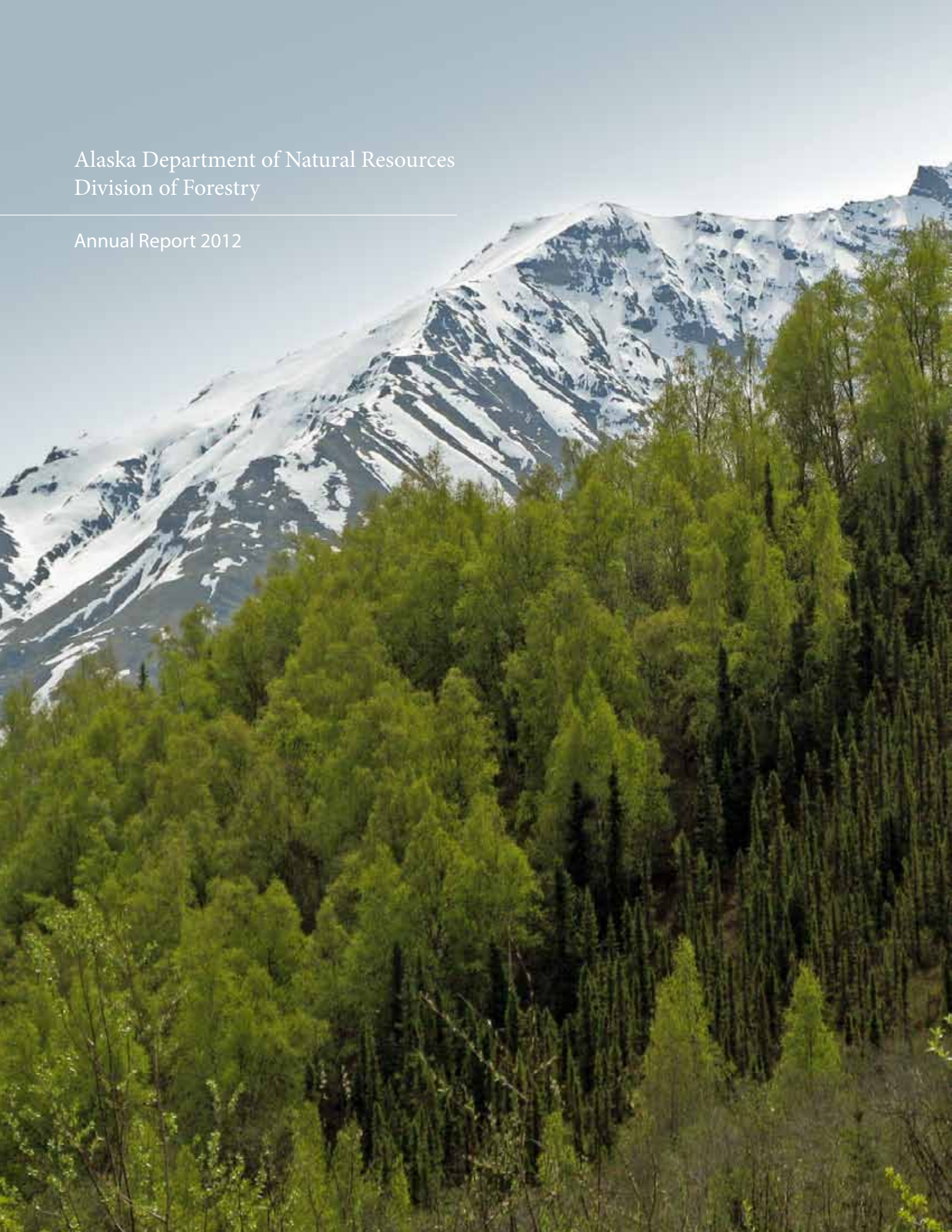


Alaska Department of Natural Resources
Division of Forestry

Annual Report 2012



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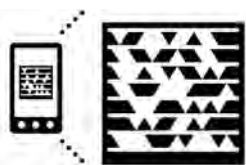


ALASKA DIVISION OF FORESTRY

The 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 Forest Resources and Practices Act
- Manages the Haines and Tanana Valley state forests, which cover a total of 2.6 million acres
- Administers Community Forestry, Conservation Education, Forest Health and Forest Stewardship programs
- Gives technical assistance to owners and managers of forested land.

The State Forester's Office is located in Anchorage. In addition, the division has two regional offices and nine area offices responsible for program support and field work. In 2012, the Division had 78 permanent full-time employees, 186 permanent part-time and seasonal employees, and 12 interns.



Get the free mobile app at
<http://gettag.mobi>

**Scan this tag with your mobile device to
go to the Division of Forestry web page.**

This publication was released by the Alaska Department of Natural Resources to provide information about the operations of the Division of Forestry during 2012.

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Cover photograph was taken by Patricia Joyner, Urban and Community Forestry Forester.

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November 19, 2013

Dear Fellow Alaskans,

Alaskans are unique, as is our state. We take pride in our individuality as people, and we manage our abundant natural renewable resources in ways that provide economic opportunity across numerous sectors, including forest products, tourism, recreation opportunities, fisheries, and energy. This annual report from the Division of Forestry illustrates many of the sustainable management practices in place around the state that diversify and develop our forests and sustain our communities, ensuring a bright future for Alaskans.

From remote locations along the Yukon and Kuskokwim Rivers, to Interior communities, to Southeast Alaska, we work to empower communities and individuals to meet their energy needs head on and embrace opportunity provided by timber resources. We offer technical assistance in forest inventory and management on private and public lands, we meet demand by offering State timber sales, and we are improving infrastructure and access through the Roads to Resources initiative.

The Division of Forestry supports private sector projects which will lower local heating costs, create new jobs, and utilize low quality or recently burned or wind-thrown trees. We have led the way in forest biomass as a renewable energy.

I had the pleasure of visiting the Fire Academy and meeting with the outstanding young men and women from Alaska's rural communities who will be our next generation of firefighters. We are also building paths enabling all Alaskans to advance their careers within the Division of Forestry.

Our state is blessed with forestry as a renewable resource, and I appreciate the work of Alaska's Division of Forestry to foster responsible forestry resource development. I encourage you to learn more about and support the Division's work so we can ensure our forests continue to be a valuable and renewable resource for future generations.

Best regards,

A handwritten signature in black ink that reads "Sean Parnell".

Sean Parnell
Governor

STATE FORESTER'S COMMENTS

Dear Alaskans,

Last year I focused my comments on the importance of State Forests and the role they play in creating economic activity and complementing the “gray” infrastructure of our communities with corresponding “green” infrastructure. I’d like to continue that discussion by taking a closer look at some specific examples of how State Forests are directly improving our quality of life and helping Alaskans cope with high energy costs.

By now, I hope the great success stories of both the Tok and Delta schools’ biomass boiler systems are well known. They are saving the school districts money and heating their facilities with a renewable and sustainable energy resource. In the Delta facilities case, wood fuel in the form of chips is produced by a local sawmill as a by-product of its milling and log home manufacturing process. It delivers this fuel to a bulk storage bin with a “live” floor semi-trailer that self unloads the chips into the on-site storage bin. This bin then feeds the biomass boiler on demand to create an automated system that heats the entire school.

The Tok system operates in much the same way, but is currently using wood fuel produced from a hazard fuel reduction project that lowers the risk of wildland fire in and around the community. In addition, the Tok boiler also produces electricity, truly the first combined heat and power (CHP) woody biomass boiler in the state. Both of these projects have demonstrated the importance of having an abundant and secure supply of fuel in close proximity to the community. The Tanana Valley State Forest is one of the key reasons these projects were able to proceed from ideas to real projects.

One hundred miles north from Delta is another example of a business that was located near Fairbanks because of the State Forest. Superior Pellet LLC operates a wood pellet mill that is helping individual Alaskans heat their homes and businesses in the surrounding area with a clean burning, densified wood product. This fuel provides an option to round wood systems and is helping Fairbanks deal with a persistent problem with air quality during the winter months.

Pellet stoves meet or beat EPA air quality standards for emissions, especially the particulate standard (PM 2.5) that many older wood burning units exceed. The company produces individually bagged pellets, which are sold via retail outlets, and recently initiated a bulk delivery business. Pellets are delivered to your home or business by a truck and stored in small pellet silos or bins that are sized for residential use. This system makes it even easier to operate a pellet stove and reap the benefits of a significant cost savings over fuel oil, support local manufacturing and use a renewable fuel that is CO2 friendly.

Burning wood still produces CO2, but new, young trees are growing to replace the trees used in the pellet manufacturing process and these trees actively remove CO2 from the atmosphere as they grow. Some even argue that this is a carbon neutral process. That assertion still needs more scientific review, but certainly this fuel is a better option than many of the other choices relative to the impacts of CO2 in energy use. Pellet systems are being used statewide, from Ketchikan to Fairbanks and have proven their reliability as a heating option to be seriously considered.



Chris Maisch represented the United States at the United Nations meeting in Rome of the Food and Agriculture Organization Committee on Forestry.

The State Forests continue to provide commercial and personnel use fuelwood, often called “chunk” wood or round wood for use in wood stoves. This is an important option for many residents and continues to be a popular way to supplement other heating options or as the primary heating source. There is something to be said for the satisfaction of cutting, splitting and seasoning your own firewood. It is often a family activity, which gets you out into the woods. While not easy, it provides plenty of opportunity for teaching your children about hard work, planning ahead and being self-sufficient, traits we all value as Alaskans.

The Division of Forestry continues to produce these types of results in both our Forest Management and Wildland Fire Management programs and that is because of our employees. This is a diverse organization with many talented people that work smart, and hard, every day. They understand the importance of what they do and how they conduct themselves in service to the state. I’m pleased to work with this group of professionals and look forward to another active and productive year ahead.

Sincerely,



Chris Maisch
Alaska State Forester

ALASKA STATE FORESTERS

Earl Plaurde
October 1959 to June 1968

William Sackeck
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

Thomas 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

2012 AT A GLANCE

Forest Resources

- Finished final report for Governor's Alaska Timber Jobs Task Force per Administrative Order 258; report makes 35 specific recommendations that span eight substantive areas of the timber sector.
- Sold 18,786,000 board feet of lumber to 34 Alaskan businesses.
- Provided direct or indirect support to over 80 woody biomass projects - this is important work that is assisting many small, remote communities and larger road-side communities that are struggling with high energy costs for space heating and electrical needs.
- Continued to work through the State Tongass Team to provide coordinated state comments to USFS in regard to federal timber sales in the Tongass National Forest.
- Worked with Department of Law to support their efforts in appealing the decision to invalidate the Tongass National Forest exemption from the Roadless Rule in the 9th Circuit Court.

Fire Management

- In cooperation with Federal, State, and local government agencies, DOF provided fire management services on 153 million acres of Federal, State, municipal, and private land.
- A total of 4,800 firefighters including State, Federal, local, and emergency hire personnel, were given basic and/or advanced training.
- The Division held an Introductory and Advanced Wildland Fire Academy in Tok, graduating 28 students in the Introductory and 34 student in the Advanced.
- Wildland fire agencies cooperatively managed 416 wildland fires statewide, of which DOF directly managed 269 of the fires, for a total of 286,888 acres statewide.
- The Division suppressed 192 fires in the Critical Management Option and 62 fires in the Full Management Option for a total of 25,598.2 acres burned and was successful at containing 97% of fires at 10 acres or less.
- There were 15 fires, for 628 acres burned, in Modified and Limited Management Options which represented 5.6% of the fire activity and 2.3% of the State protected acreage - modest amounts when compared to more typical years.
- In early spring, the timeframe when human caused fires are most frequent, the number of human-caused fires (per capita) was reduced by half via Prevention Program measures, such as burn permits.
- Thirty-five local fire departments received \$221,086 in federal grant money to assist in training, acquisitions, and emergency preparedness.
- The Division's effort to reduce the number of human-caused fires included 181 fire prevention presentations that were given to school kids, youth organizations, civic groups, homeowners, and contractors; the issuance of 85 warnings and 6 citations; and prosecution in three court cases.
- There were 1,513 home Firewise assessments delivered by local fire departments as a result of the grants administered by DOF.
- DOF minimized structure loss due to wildland fires to seven structures, including one residence and six outbuildings.
- There were seven Community Wildfire Protection Plans updated or created and 739 acres of hazards fuels treated as a result of fuels projects directed by these plans.
- The most complex incident in Alaska was the Bear Creek Fire in the central interior near Clear. The fire started on June 24 by a series of lightning strikes and was managed by Type 1 and Type 2 Incident Management Teams. The incident threatened numerous subdivisions and encompassed 8,522 acres.
- There were 1,117 overhead orders for instate and out of state assignments received by the State Logistics Center, of which 1,079 filled by the Alaskan workforce.
- The Division assisted Lower-48 firefighting efforts by supplying three air tankers and aerial supervision for four months; the resources worked throughout the central and western United States.
- The Division provided helicopter modules, overhead support, and crews via the Northwest Compact agreement to Alberta and the Northwest Territories in July.

- Two of the Division's PC-7s were sold and will be replaced with twin engine turboprop aircraft for the aerial supervision program.
- DOF hosted two contract crews with Tanana Chiefs and Chugachmuit Corporations.
- There were 55 orders (in and out-of-state) for Emergency Firefighter Crews. The agency crews (including Hot Shot, Type 2 Initial Attack, and Type 2) had 32 instate assignments and 17 out-of-state assignments.
- Overall, \$5,867,139 was paid to Alaskan Emergency Firefighters.
- 425 vendors were utilized in support of firefighting efforts and represented \$779,975 in income to the local economy.
- In early-September, DOF firefighters provided assistance in Anchorage after a severe windstorm blew trees over and left many residents without power for days. Firefighters and equipment were dispatched by the Department of Natural Resources to assist crews from the Municipality of Anchorage with tree and debris removal.
- The Alaska Type 1 Incident Management Team was assigned to the Trinity Ridge Fire in Idaho from September 2 - September 15.
- In mid-September, Interior Alaska experienced an extraordinary high-wind event that resulted in numerous power line fires and extensive forest "blow down."
- In late-September, a 10-person DOF Incident Management Team assisted the Mat-Su Borough and Department of Homeland Security with response to flooding and provided support in planning and damage assessment.
- In early November, a new wind-driven fire started in the tundra near the Dillingham airport, burning in dry conditions, and required a response from local, State and Federal cooperators.
- The Anchorage Mat-Su Area received substantial wind in late November, continuing into early December, which resulted in 17 fires. The elimination of the snow cover resulted in several urban interface fires, an evacuation, and more acreage burned than in the previous summer months.

DOF provided direct or indirect support to over 80 woody biomass projects, assisting many remote communities and larger road-side communities struggling with high energy costs for heating and electrical needs.

The most complex fire incident in Alaska was the Bear Creek Fire in the central interior. The fire was started by a series of lightning strikes. The incident threatened numerous subdivisions and encompassed 8,522 acres.

FOREST RESOURCES AND PRACTICES

Activity Summary

DOF is the lead agency for implementation of the Forest Resources and Practices Act. Primary activities include coordinating interagency review of Detailed Plans of Operation (DPOs) for activities on private, municipal, and trust land; field inspections, implementation monitoring, and enforcement actions on these lands; and incorporating the standards of the Act and regulations into state timber sales. Forest practices related work on federal land is conducted by the Alaska Department of Environmental Conservation (DEC) and the Alaska Department of Fish and Game (ADF&G) Habitat Division based on their authorities for water quality and fish habitat protection. Overall, FRPA continues to be effective in protecting water quality and fish habitat, while providing for continued timber and fishing industry opportunities. DOF was able to sustain adequate field presence this year to ensure that the Act is implemented properly.

Notifications and Inspections

In 2012, DOF received and reviewed 57 new DPOs and 14 renewals for private, municipal, and state trust lands. New DPOs covered 27516 acres and 132 miles of road. The Division conducted 29 inspections on private, municipal and trust land and 184 FRPA inspections on state timber sales. The number of new notifications continues its downward trend; however, the amount of harvest acreage and road miles notified in 2012 are both slightly up over 2011. For the total of new plus renewed notifications, this year's total is the lowest on record since 1991. It is also a record low for inspections.

Variations

DOF reviewed 2 variation requests in 2012 for timber harvest within riparian buffers on Afognak Island. 686 of the 724 trees requested for harvesting in buffers were approved. The number of requests for site-specific riparian area variations continues the downward trend; however, the number of trees requested in 2012 spiked sharply upward.

Enforcement

DOF issued no new notices of violation, directives, or stop work orders in 2012. There were two carry-over actions on notices of violation from previous years. This is the third straight year without any new directives, violations, or stop work orders.

Mass Wasting Regulations

DOF issued public notice of proposed regulation amendments regarding forest practices and mass wasting in December, 2012. The proposed regulations implement the recommendations from the Landslide Science & Technical Committee and the Implementation Group that were endorsed by the Board. Comments on the regulations are due January 31, 2013.

The amendments would:

- Use the new term “unstable area” in the section on DPOs (11 AAC 95.220), and include indicators for identifying unstable areas
- Use the term “unstable slope” in all other BMPs that previously used the terms “unstable slope,” “unstable or slide-prone slope,” or “unstable slope or slide-prone area,” and a definition for “unstable slope” to the definitions section (11 AAC 95.900). This applies to the BMPs on road construction (11 AAC 95.290), harvest unit planning and design (.340), landings (.345), cable yarding (.360), and tracked and wheeled harvest systems (.365)
- Add a definition for “unstable fill material” to the regulatory definitions and use the new term in the BMP on balancing cuts and fills in road construction (11 AAC 95.290(b)(2))
- Add a new subsection to the cable yarding BMPs (11 AAC 95.360) requiring that operators minimize disturbance to soils, understory vegetation, stumps, and root systems
- Add a new subsection to the harvest planning BMPs (11 AAC 95.340) requiring that operators consider techniques such as partial cuts, retention areas, and helicopter or skyline yarding to minimize disturbance
- Add to the tracked and wheeled harvesting BMPs (11 ACC 95.365) a requirement that an operator provide notice to DOF before operating tracked or wheeled equipment on unstable slopes.

2012 FRPA ACTIVITIES ON PRIVATE, MUNICIPAL AND TRUST LANDS

TEN-YEAR RECORD OF TIMBER VOLUME OFFERED (MBF)

Includes new offerings, reoffers, and sales available over-the-counter

	Coastal: <u>Southeast</u>	Coastal: <u>Southcentral</u>	Northern <u>Region</u>	State <u>Total</u>	# Sales Offered <u>Statewide</u>
FY 03	9,452	12,470	15,027	36,949	105
FY 04	13,564	21,133	7,653	42,350	64
FY 05	21,318	37,929	17,460	76,706	101
FY 06	17,335	37,346	29,233	83,914	93
FY 07	30,945	30,228	21,775	82,948	85
FY 08	10,567	4,316	21,990	36,873	82
FY 09	5,597	1,451	26,666	33,714	104
FY 10	4,626	2,734	23,622	30,982	83
FY 11	12,859	3,913	32,856	49,628	96
FY 12	8,556	1,260	28,915	38,731	68

TEN-YEAR RECORD OF TIMBER VOLUME SOLD (MBF)

	Coastal: <u>Southeast</u>	Coastal: <u>Southcentral</u>	Northern <u>Region</u>	State <u>Total</u>	# Sales Sold <u>Statewide</u>
FY 03	4,145	9,779	4,813	18,737	68
FY 04	8,064	,957	2,708	11,729	50
FY 05	16,003	4,564	5,594	26,161	76
FY 06	10,777	1,703	12,478	24,959	63
FY 07	24,437	30,110	6,420	60,967	65
FY 08	4,059	4,316	7,163	15,538	67
FY 09	5,597	1,451	11,036	18,084	91
FY 10	4,626	2,460	5,445	12,531	69
FY 11	12,865	3,913	7,281	24,053	71
FY 12	8,556	1,260	7,739	17,555	50

2012 FRPA ACTIVITIES ON PRIVATE, MUNICIPAL, AND TRUST LAND: NUMBER OF NEW NOTIFICATIONS (DPOS)

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
SSE	32	61	54	32
NSE	8	8	6	3
Mat-Su/SW	0	0	11	--
Kenai-Kodiak	6	15	0	13
COASTAL	46	84	71	48
Fairbanks	0	1	0	5
Delta	0	0	0	0
Tok	0	0	4	4
Copper R.	0	0	1	0
NORTHERN	0	1	5	9
TOTAL	46	85	76	57

2012 FRPA ACTIVITIES ON PRIVATE, MUNICIPAL, AND TRUST LAND: HARVEST ACREAGE IN NEW NOTIFICATIONS

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>
SSE	7,752	17,532	5,577	8,373
NSE	1,858	1,740	2,241	6,379
Mat-Su/SW	--	--	--	--
Kenai-Kodiak	1,894	7,389	4,684	8,918
COASTAL	11,504	26,661	12,502	23,670
Fairbanks	--	168	--	161
Delta	--	--	--	--
Tok	--	--	2940	3,685
Copper R.	--	--	205	--
NORTHERN	--	168	3,145	3,846
TOTAL	11,504	26,829	15,647	27,516

NUMBER OF PERSONAL USE PERMITS - FISCAL YEAR 09-12

	Coastal/ <u>Southcentral</u>	Northern <u>Region</u>	State <u>Total</u>
FY 09	239	1608	1847
FY 10	759	1072	1831
FY 11	546	864	1410
FY 12	--*	--*	1325

TIMBER PROGRAM REVENUE BY FISCAL YEAR (IN THOUSAND DOLLARS)

FY 03	475.9	FY 08	1260.5
FY 04	660.3	FY 09	617.0
FY 05	834.5	FY 10	521.9
FY 06	502.5	FY 11	371.9
FY 07	661.9	FY 12	601.7

* New online system is not region specific.

Note: Timber program revenue is primarily from timber sales; approx. 2% of the revenue comes from other sources, including log brands, seedlings, retained damages and document fees.
Units of measurement: Board foot (bf) = the unit used to measure lumber. One board foot equals one foot square by one inch thick
MBF = thousand board feet
State Fiscal Year 2012 runs from July 2011 through June 2012.

Forest Practices Monitoring

Compliance Monitoring

During 2012, DOF conducted compliance monitoring on 100% of all FRPA and state timber sale inspections. DOF has had good inspection coverage on all forest operations throughout the State. The score sheets and inspection reports show excellent compliance in all three regions. There has been a steady improvement in compliance over the last ten years, which has been the product of regular DOF training sessions and regular on-site inspections with the operators. Most regulation infractions have been discovered very early, so that the issues could be corrected before degradation could occur.

Effectiveness Monitoring

DOF continues to work with agencies and affected interests to prioritize new effectiveness research, and seek funding for high priority projects. Fourteen participants representing state and federal agencies and private organizations involved with research and monitoring related to forest practices in Alaska met in Juneau on April 19, 2012. Staff participated from DNR, ADF&G, DEC, US Forest Service, US Fish & Wildlife Service (USFWS), Sealaska Corporation and Martin Environmental. The group reviewed potential funding sources for 2012-13, summarized 2011 compliance monitoring results and effectiveness monitoring projects, and discussed effectiveness monitoring priorities for the coming year. The top priority projects for 2012-13 are continued Road Condition Surveys on the Kenai Peninsula and the Trends & Conditions of Fish Habitat study.

Alaska Sustainable Salmon Fund (AKSSF)

ADF&G reported there is uncertainty with federal funding. The amount of funding is declining – from \$80 million to \$65 million nationally, and next year only \$50 million is proposed. Alaska's share of the national amount is also declining. ADF&G has four science panels that set priorities for the statewide panel. There will be a call for proposals this August-September; perhaps \$9 million or less may

be available, plus \$3-4 million left over for similar projects from last year.

New this year is the need to apply via a “prioritized list” for projects in four areas:

- ESA (Chinook salmon ESA)
- Habitat Protection and Restoration (not monitoring) to salmon populations used for subsistence
- Salmon population status monitoring
- Habitat protection all lands

Past road condition surveys were paid for with AKSSF. However, in 2012, the Tyonek road condition surveys were paid for by the Kenai Peninsula Borough (KPB) using funds that originated as Spruce bark beetle money, of which KPB is the pass through agency. The 2012 Kenai Peninsula road condition surveys were funded by AKSSF, however that required a match which came from DOF general fund monies and the KPB.

State and Private Forestry (USFS) Grants

Part of the State & Private Forestry (S&PF) funding is allocated through a competitive process and that Alaska has had limited success with this approach. S&PF provided \$200,000, with a Sealaska match, to continue Doug Martin's work and develop a final report. Alaska also received funding to provide training in support of wood energy development in Fort Yukon, using a non-federal 50-50 match.

Road Condition Surveys

DOF, with the assistance of ADFG, surveyed close to 60 miles of road on the Kenai Peninsula and 74 miles on the west side of Cook Inlet in the Tyonek area. The surveys covered land owned by the State, Mental Health Trust, University, Borough and Native corporations. Most of the roads were in good shape and compliance overall was met. There were some low-rated fish culverts found in the Tyonek Area on an old State logging road built before the FRPA was passed. There were four new nominations on the Kenai and nine new nominations in the Tyonek area to the Anadromous Waters Catalog, as a result of the 2012 surveys.

2012 COMPLIANCE MONITORING SUMMARY BY REGION

	# Score sheets		#BMP Ratings	Mean Score for all BMPs	% of all BMPs rated >4
	State	Private/Other Public			
Region 1	34	24	1292	4.87	98.3
Region 2	104	5	771	4.86	97.5
Region 3	46	0	623	4.60	93.3
Total	184	29	2686	4.78	97.0

A rating of 5 means the BMP was consistently and effectively implemented where applicable; a rating of 1 means the BMP was rarely implemented where applicable or was implemented ineffectively.

Board of Forestry

The nine-member Board of Forestry advises the state on forest practices and provides a forum for discussion and resolution of forest resource issues. The board also reviews all proposed changes to the Alaska Forest Resources and Practices Act (FRPA) and its regulations. Board members are appointed by the governor for three-year terms and represent a variety of forestry-related interests. All board meetings include an opportunity for public comment.

In 2012, the board held hearings in Fairbanks, Juneau, and Anchorage, along with a teleconference in which Board members and citizens called in from eight locations. Key issues before the Board were:

- Southeast forest management, including shortages in the Tongass National Forest timber supply; land ownership issues involving Sealaska Corporation, the Mental Health Trust, and the US Forest Service; litigation on implementation of the Roadless Rule in Alaska; and wildlife research.
- Wood energy expansion across Alaska, including Alaska Energy Authority projects for feasibility assessment, design, and construction of wood energy facilities; proposals for wood power generation in Tok and Fort Greely; wood pellet production in North Pole; and possible new best management practices for biomass harvesting.
- Proposed establishment of a Susitna State Forest.
- National and state responses to a federal court decision that would require National Pollution Discharge Elimination System permits for forest roads.
- Budgets and funding to implement the Forest Resources and Practices Act.
- Recommendations from the Alaska Timber Jobs Task Force regarding management of federal and state forest resources, workforce development, wood products innovation and marketing, and expansion of the State Forest system.

The Board also tracked the process to amend regulations for mass wasting and forest practices, references to Alaska Coastal Management Program in FRPA, and public notice requirements for state timber sales. The Division of Forestry briefed the Board on forest management and forest planning on state land, forest practices monitoring and road condition surveys, and realignment of Division staffing to support large biomass energy projects.

In addition to regular Board meetings, Board members attended a meeting of the Tanana Valley Citizens Advisory Committee, and a public meeting hosted by DOF regarding the proposed Susitna State Forest.



2012 BOARD OF FORESTRY

Rob Bosworth
Environmental Organization,
Juneau (through June, 2012)

Matthew A. Cronin, Ph.D.
Non-governmental Fish or
Wildlife Biologist,
Anchorage

Jeff Foley
Mining Organization,
Anchorage

Chris Maisch, Chair
State Forester, Fairbanks

Erin McLarron
Recreation Organization,
Willow

Eric Nichols
Forest Industry Trade Association,
Ketchikan

Wayne Nicolls
Non-Governmental Forester,
Juneau

Chris Stark
Environmental Organization,
Fairbanks (from August, 2012)

Mark Vinsel
Commercial Fishery,
Juneau

Ron Wolfe
Native Corporation,
Juneau

*Board of Forestry field trip to Alaska
Plant Material Center. Left to right: Peggy
Hunt, Agronomist PMC; Brian Kleinhenz,
SeaAlaska; Jeff Graham, DOF; Chris Maisch,
State Forester/Chair; Eric Nichols, BOF; Dave
Harris, USFS RIO; Wayne Nicolls, BOF; Erin
McLarron, BOF; Matt Cronin, BOF; Jeff Foley,
BOF; Jim Schwarber, DOF; Mark Vinsel, BOF;
Dean Brown, DOF; Al Edgren, DOF. Photo
by Maggie Rogers.*

RESOURCE MANAGEMENT

Coastal Region

Timber Sales

The timber industry in the Southeast continues to struggle due to the lack of a short-term and long-term timber supply coming from the Tongass National Forest and the lack of harvestable timber on Native corporation land. The USFS is changing their timber management focus to restoration and second-growth management, drastically reducing the amount of old-growth harvesting. The amount of second-growth timber available for harvest is not sufficient at this time for the local industry to retool for second-growth manufacturing, other than on a limited basis.

For the short term, Sealaska Timber Corporation is projecting one to two years of timber harvesting remaining on their lands, and will have to stop harvest operations until their remaining entitlement is resolved.

Higher logging costs, transportation costs, and fuel costs also make it harder for the local industries to compete in national and world markets. Only one mid-sized mill remains in the Southeast. The local small mills in the Haines area are continuing at their normal rate, providing local lumber, house logs, and firewood for the community.

Timber harvest operations continue on Afognak and Kodiak islands, primarily harvesting spruce logs for export. On the Kenai Peninsula, the dead spruce continues to deteriorate, with limited or no value for lumber production or chip production. The local timber industry in the Mat-Su and Tok continues to produce lumber and the local mills are slowly building high-value-added capacity.

The long-term demand for State timber continues to be high in the Coastal Region and the Division has worked hard to meet those demands. The remaining mid-sized mill, Viking Lumber in Klawock, purchased one State sale in 2011, for approximately 4.5 MMBF and purchased a large Forest Service sale for approximately 38 MMBF. The Southern Southeast Area office continues to prepare timber sales to supply volume for the Viking mill, along with providing small sales for the local operators. Demand for state firewood is high in Southcentral Alaska and in Tok.

Due to interest in a large biomass project in Tok, the Division submitted a Preliminary Best Interest Finding for public review and comment in December, 2012. The finding is for a 25-year timber sale contract, providing approximately 35,000 tons of fiber per year for a cogeneration plant in Tok from approximately 1,000 acres of state land annually.

This means at least a five-fold increase of harvested acreage, greatly increasing the need for forest practices inspections on these lands.

High fuel prices have increased interest in alternative energy sources, such as pellet mills, ethanol plants, and co-generation plants. Private sector companies are exploring possibilities of commercial operations on Prince of Wales Island, in Haines, on the Kenai Peninsula, and in the Mat-Su area. Commercial operations such as these focus on total fiber supply, rather than log volume and quality. These new industries would benefit the local communities and help build an integrated timber industry. New operations would also increase the demand for State timber in areas that have had minimal harvest in past years.

Local communities throughout the Coastal Region continue to explore the feasibility of wood-fired furnaces to heat their schools and office buildings and help reduce high heating costs. The City of Craig continues to heat their community swimming pool and their school with a chip-fired furnace. The Tok School is heated with biomass and has also produced surplus energy for the local power grid. The City and Borough of Haines has almost completed its feasibility study, along with Sitka and Talkeetna. The Coastal Region continues to provide technical assistance and expertise to these communities during their studies. If these projects become operational, there will be a high demand to provide State timber to fuel these burners. Demand for firewood continues to be high due to increased fuel prices, especially on the Kenai Peninsula and the Mat-Su/Anchorage area. On-line permitting has made the firewood permitting process a little easier. Foresters continue to lay out firewood areas, based on local demand.

The Division of Forestry received a \$600,000 CIP to build new access roads for personal use and commercial firewood areas. Commercial firewood sales continue to increase in all the areas of the Coastal Region, using timber that has limited or no use for sawlog manufacturing.

Beach Log Salvage

The Southern Southeast Area administers the Beach Log Salvage licensing program. This program provides a vehicle for commercial operators to recover lost saw-logs from the coastal waters of southeast Alaska and requires coordination with the USDA Forest Service and other upper tideland owners. The southeastern waters are divided into 56 salvage areas. Prices for timber are going up and more people are inquiring about salvage areas near communities or logging operations where transportation costs can be minimized. In 2012, DOF renewed three licenses and issued no new licenses; the areas were located in Southern Southeast.



Clarence Clark and Steve Joslin on forest practices inspection at Harris River Bridge.

Tongass Management Issues

The Division of Forestry continued its involvement with the United States Forest Service (FS) in the implementation of the Tongass National Forest Land and Resource Management Plan. As part of the State-Tongass Team, the Division provides language regarding forest management objectives and project economics for inclusion in the State of Alaska's consolidated comments on various FS National Environmental Policy Act (NEPA) documents. Under the Economic Timber Memorandum of Understanding between the State and United State Forest Service, DOF continues to work with the FS and its contractors on the following timber sale projects; Wrangell Island on the Wrangell Ranger District, Big Thorne on the Thorne Bay Ranger District, and Saddle Lakes on the Ketchikan-Misty Fjords Ranger District. Volume offered for sale by the FS increased in federal fiscal year 2012 (October 2011 to September 2012) to a total volume of 53 MMBF.

Involvement in other projects during 2012 included coordination of DOF Southern Southeast Area timber sales with complementary FS projects, and the development of an administrative land trade between the Alaska Mental Health Trust and the USFS. DOF continued working with the following groups: the Timber Committee of Southeast Conference which is the Federal Economic Development District in southeast; the Gate 1 and Gate 3 Committees, which are made up of Federal, State and private industry employees. The Gate 1 Committee discusses possible areas for future timber sale projects and the Gate 3 committee works on methods to improve the implementation of Forest Service timber sale projects. Forestry provided support to the Department of Law on several 2001 Roadless Rule issues including an appeal of the May 2011 Alaska District Court ruling on the Tongass Exemption to the Roadless Area Conservation Rule.

In April, the State of Alaska submitted an Administrative Appeal to Forrest Cole, Forest Supervisor of the Tongass National Forest, on the Finding of No Significant Impact (FONSI) for the Twelvemile Creek Restoration Project Environmental Assessment. The appeal raised the concern, "that allowing the use of old growth and young growth trees from a development Land Use Designation (LUD) for use in the construct of instream habitat structures further contributes to the Forest Service's inability to meet their statutory obligation under Section 101 of the Tongass Timber Reform Act (TTRA), "to seek to provide a supply of timber from the Tongass National Forest which (1) meets the annual market demand for timber from such forest and (2) meets the market demand from such

High fuel prices have increased interest in alternative energy sources, such as pellet mills, ethanol plants, and co-generation plants.

Private sector companies are exploring possibilities of commercial operations on Prince of Wales Island, in Haines, on the Kenai Peninsula, and in the Mat-Su area. These commercial operations focus on total fiber supply, rather than log volume and quality.

These new industries would benefit the local communities and help build an integrated timber industry.

New operations would also increase the demand for State timber in areas that have had minimal harvest in past years.

forest for each planning cycle.” (16 U.S.C. 539(d)(a)). At issue was whether the Forest Plan for the Tongass National Forest, when restricted by current management directions and policies provides sufficient timber volume for administrative purposes (stream restoration) while meeting the statutory requirements of TTRA. The administrative appeal was withdrawn when the FS agreed to include a forest-level analysis to determine whether the current regulatory framework (i.e. Roadless Area Conservation Rule) provides the Forest Service with the ability to comply with the Tongass Timber Reform Act (TTRA) Section 101 as part of the 5 year review of the Tongass Land and Resource Management Plan.

The Working Forest

Working with representatives of the timber industry DOF helped develop the “working forest” concept. A “working forest” is managed based on the triple bottom line theory of balancing environment, community and economy. While providing essential ecosystem services such as clean water and air, a working forest develops its natural resources to provide jobs within local communities which stabilizes and strengthens the area’s economy.

The Final Report of the Governor’s Timber Jobs Taskforce included the working forest concept as follows:

Alaska’s federal and state forests have the potential to be a model of sustainability, including environmental, social, and economic objectives. The “Working Forest” concept embraces diverse and broad objectives related to utilizing natural resources, providing jobs, stimulating local

economies, and supporting communities. These broad objectives have the potential to unify diverse stakeholders and interest groups while framing many of the State of Alaska’s short- and long-term goals.

Working Forests:

- Support industries that use Alaska’s natural resources on a sustained-yield principle based on multiple-use management, consistent with public interest
- Manage timber resource production on a rotational basis to provide for a fully-integrated timber industry capable of producing a variety of products
- Attract private-sector investment that establishes businesses, creates jobs and provides community stability.

Development of the working forest concept lead to the creation of The Working Forest Group; an incorporated Alaska entity that promotes active management of forests, collaboration and communication between forest resource user groups, and research for use in the development of management plans for the forest.

Chugach National Forest

In February 2012, the Chugach National Forest announced that it was selected as one of eight national forests across the country to revise its forest plan under the new National Forest System Planning Rule. The forest plan provides Forest Service staff direction for managing resources and activities such as recreation, fish and wildlife habitat,

TONGASS NATIONAL FOREST TIMBER SALE PROGRAM 2001-2012 (Volumes in MMBF)

Federal Fiscal Year	TTRA Volume Offered	Timber Volume Offered	Timber Volume Sold	Timber Volume Harvested	Timber Volume Under Contract
2001	119	68	50	48	283
2002	110	57	24	34	296
2003	151	89	36	51	193
2004	153	73	87	46	149
2005	143	110	65	50	104
2006	143	24	85	43	111
2007	116	32	30	19	114
2008	99	42	5	28	97
2009	146	36	10	28	84
2010	173	46	46	36	98
2011	110	44	38	33	105
2012	127	53	53	21	150
Average	133	56	44	36	149



Paul Slenkamp measuring a log processor head.

historic and sacred sites, vegetation, mineral exploration and development, and timber on the Chugach. The construction of a new forest plan, which is estimated to take at least three years to complete, will be done in three phases. During 2013 the Forest Service will conduct phase one, the “assessment”; which will identify and evaluate existing information about ecological, economic and social conditions and trends related to the Forest and Southcentral Alaska. The resulting assessment report will provide a solid base of information for phase two, drafting the revised plan and developing an environmental impact statement under the guidelines of the National Environmental Policy Act (NEPA). Phase three is the development of a monitoring strategy to assess how well implementation of projects on the Chugach meets the goals and objectives of the plan.

Governor’s Timber Task Force

In 2011, the Governor appointed a nine-member Task Force to develop recommendations for managing forest land to further economic development and provide jobs for Alaskans from timber harvest. The Task Force issued its final report in October, 2012.

The report includes 34 recommendations addressing:

- Management of state-owned forest land
- Additions to existing State Forests
- Creation of new State Forests
- Changes to State statutes or regulations governing timber harvesting
- State land acquisition or exchanges in the Tongass National Forest
- Areas of research related to use of the Tongass National Forest and impacts on wildlife, demand for timber in the Tongass National Forest
- Possible timber sales in the Tongass National Forest to meet demand
- Current wood products and potential new products/uses of timber supplied by the Tongass National Forest.

For state land, the report recommends changes to timber sale statutes and regulations, acquisition of federal land in Southeast Alaska, additional and expanded state forests, and access development and maintenance. On federal land, the Task Force recommends the transfer of some Tongass National Forest land or management authority to the state to increase the supply of federal timber sales. Task Force recommendations for research and review of game management policies in Southeast, and wood products development would affect both state and federal land.

A “working forest” is managed based on the triple bottom line theory of balancing environment, community and economy. While providing essential ecosystem services such as clean water and air, a working forest develops its natural resources to provide jobs within local communities which stabilizes and strengthens the area’s economy.

Proposals for State Forests include a major expansion to the Tanana Valley State Forest and new State Forests in the Susitna valley, Copper River basin, Kenai-Cook Inlet, and Icy Bay areas. If Southeast land is acquired from the USFS, it would be added to the Southeast State Forest.

The Board of Forestry held a special meeting on December 14, 2012 to review the Task Force recommendations. Following review, the Board unanimously endorsed a letter to the Governor supporting the Task Force report with the caveat that any changes in land ownership and forest management must continue to provide adequate protection for fish habitat and water quality, ensure reforestation of harvested land, and fully comply with the Alaska Forest Resources and Practices Act.

In January, 2013, the Governor introduced a bill to implement Task Force recommendations to establish a 763,200-acre Susitna State Forest and broaden DNR authority to offer negotiated timber sales.

Roads

In 2012, the Alaska Legislature provided funding to DOF and to the Department of Transportation and Public Facilities (DOT) for several road projects which provide access for timber management activities on both state and federal forested lands. This funding allows the Division of Forestry to continue working through multiple venues to improve infrastructure, and provide a sustainable economic supply of timber that meets the demand needs of the timber industry in southeast Alaska.

ROAD MILES NOTIFIED

	2009	2010	2011	2012
SSE	30	55	28	15
NSE	0	0	10	16
Mat-Su/SW	0	0	61	64
Kenai-Kodiak	3	66	0	0
COASTAL	33	122	99	95
Fairbanks	0	3	0	6
Delta	0	0	0	0
Tok	0	0	27	31
Copper R.	0	0	1	0
NORTHERN	0	3	28	37
TOTAL	33	124	127	132

This year the Division received a \$2,000,000 CIP for the identification, planning and construction of access roads for timber sales, primarily in the southeast. Planning work has been started on three projects in the southeast.

The first project is the construction of 2.5 miles of new road on Gravina Island near Ketchikan, connecting two parcels of the Southeast State Forest. This new road will be for timber harvesting and long term forest management.

The second project is for the construction of a 2 mile bypass road around the community of Edna Bay on Kosiushko Island and the design and construction of a Log Transfer Facility (LTF) in Edna Bay.

The third project is to develop ship moorage and log storage sites throughout the southeast for movement of harvested logs. To handle all these new road projects we have re-written the job description for an existing position to become the roads project manager for our future road development projects. We are expecting to fill this position in the spring of 2013.

DOF received additional CIP funding in 2011 to construct road access for firewood areas, for both commercial operations and for local residents. New road construction has been completed in Tok and Delta for firewood access and three other road construction projects are being developed on the Kenai Peninsula, the Mat-Su area and Copper River. Additional firewood access projects will be considered and funded in 2013.

A transportation plan is being developed in the Division to address the need for new road construction and ongoing road maintenance for timber harvest and timber management in the future. Every Area has received funding for ongoing road maintenance projects, primarily grading, brush clearing, and ditch cleaning. Working with DOT we are making a list of bridges on logging roads in our state forests that will need to be repaired or replaced. GIS road maps have been developed in each Area, showing road locations, and whether they're open or closed to the public.

Northern Region

Timber Sales

Maintaining a sustainable supply of timber and meeting the needs of both the forest products industry and the public continues to be a focus of the Northern Region. An increased demand for material that has been classified as non-merchantable in the Tok and Delta Areas is pushing the limits of available staff in the area offices. Personnel from Coastal Region have stepped up to help alleviate the workload through the formation of Large Project Management Teams. This increasing demand is due to project proposals for development of wood energy facilities in the Tanana Valley. Young's Timber, Inc. and Alaska Power and Telephone in Tok, and the US Army installation at Ft. Greely in Delta Junction, are considering conversion to biomass fuels for heat and power production.

High fuel oil prices continue to influence personal-use and commercial firewood harvests throughout the Region. The Division continues to provide information to communities concerning the benefits of burning dry, well-seasoned wood compared to burning freshly-harvested green wood and is working with the Fairbanks North Star Borough in support of the "Split, Stack, Store, and Save" informational initiative. The cities of Fairbanks and North Pole continue to face scrutiny from the federal Environmental Protection Agency for high levels of particulate matter related to winter wood-burning. Timber theft is increasingly becoming an issue on both State and Fairbanks North Star Borough lands. As a result of illegal cutting of large white spruce, the Rosie Creek Road was closed to public access in early winter.

Fairbanks Area continues to work with the Division of Mining, Land, and Water and the Fairbanks North Star Borough to access timber burnt by the 2011 Hastings Fire. The Pete Simpson Memorial Road was constructed as a fire line during the Hasting Fire and there is an estimated 4,864 acres of assessable burnt timber within Unit 4 of the Tanana Valley State Forest. This includes spruce saw timber, birch, and aspen. Based on Tanana Valley inventory data, approximately 177,270 tons of wood could be salvaged. The road is named in memory of long-time DOF Forester Pete Simpson who had a lasting impact on the Division's wildland fire management program and was active with many community forestry events.

The first full year of operation of the wood-fired boiler at the Delta/Greely School District has proven to be very successful. There remains a strong interest in wood energy development throughout the Interior and a continued strong working relationship with the local communities and varied interests throughout the Tanana Basin is critical to the success of these projects.

The Northern Region received six new Detailed Plans of Operations in calendar year 2012, four of these on Fairbanks North Star Borough parcels designed as commercial firewood sales designed to help alleviate the demand for firewood by the local public due to the high cost of fossil fuels. Forest practices inspections this year focused primarily on state administered timber sales. Compliance inspections indicated that Best Management Practices were implemented on the sales.

A severe wind event in mid-September knocked down pockets of timber in the Tok and Delta Areas affecting approximately 30,000 acres. The volume of timber material overwhelms the capacity of the existing industry. The priority for harvests is to improve safety around Dry Creek and the Native Village of Tanacross by removing the blockages to access.

The Citizens' Advisory Committee (CAC) of the Tanana Valley State Forest is almost fully staffed with 10 of the 12 seats occupied. The CAC provides tremendous outreach to the public throughout the state to keep them informed of the challenges and activities of the

2012 TANANA VALLEY STATE FOREST CITIZENS' ADVISORY COMMITTEE

Al Pagh, Forest Industry

Brad Cox, Value-Added Processing

Chris Stark, Environmental Interests

Dan Rees, Private Forest User

Tom Malone, Forest Science

Kathy Morgan, Native Community

Vacant, Recreation

Vacant, Tourist Industry

Paul Karczmarczyk, Fish and Wildlife Interests

John (Jack) DiMarchi, Mining Industry

Thomas Nerbonne, Regional Representative – Upper Tanana Valley

Jim Sackett, Regional Representative – Lower Tanana Valley

Division of Forestry in the Tanana Valley. With the long-term biomass harvest proposals in the middle and upper portions of the Tanana Valley, effective public communications is essential. CAC Meetings are held throughout the year with the exception of a summer recess.

Inventory

Statewide inventory projects continue to address the wood supply needs of existing, new, and developing value-added wood processing facilities. Biomass resource utilization is expanding across the state and forest inventory provides data on the quantity and location of the wood supply. Accurate inventory data is important to determine sustainable harvest rates, evaluate economic metrics, support infrastructure development, and properly apply best management practices. Maintaining up-to-date forest inventory data supports DNR's mission to provide a sustained yield of forest products and uses.

Projects in progress include updates of the Tanana Valley and Haines State Forest inventories and a new Susitna Valley forest inventory. The Tanana Valley inventory update has been underway for several years and is now focused on assessing woodland and reproduction vegetation types. This information will supplement data from revised poletimber and sawtimber vegetation types. Field sampling in these timber types was completed and the final volume analysis is underway. Some of this timber may be suitable for biomass utilization.

DOF also re-measured permanent sample plots in Haines. The Haines update will revise volume estimates for bark beetle mortality and tree growth. A growth model will be developed from the plot data to more accurately determine sustained yield.

DOF conducted Mat-Su inventory field sampling in 2010. An interim report summarizes data on approximately 490,000 acres of forest classified land in the valley. Subsequent to the report DOF delineated vegetation types on an

additional 200,000 acres and incorporated the new data into the Division's Geographic Information System. The remaining area of proposed Su Valley state forest lands will be classified when suitable satellite imagery becomes available. The Division received imagery covering roughly 40,000 acres in December 2012 and will classify this area in winter 2013.

Inventory projects have also been funded in part through a partnership with the Alaska Energy Authority. AEA has helped fund inventories to ensure that the proposals they receive for wood energy projects are sustainable over the long term. The Tanana biomass assessment which was a cooperative effort between DOF and Tanana Chiefs Conference was completed in 2012. The Tanana project was mentioned in the 2011 BOF report.

The Kenai inventory was the most significant project completed in 2012 with AEA funding. It provides detailed forest information for state lands across the Kenai Peninsula. As far as key results go, an unexpected result occurred with the Kenai inventory. In terms of volume per acre (it is the lowest of all state inventory regions), it exhibited the greatest growth rates of all the areas. This is related to the bark beetle outbreak where the trees that survived the beetles are quite vigorous and have been released from competition.

GIS

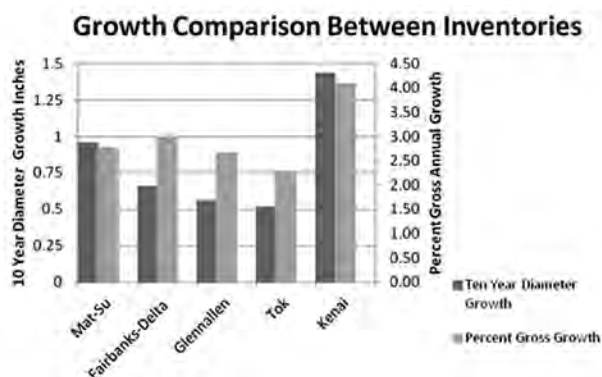
DOF uses GIS technology as a tool to aid in the management of its resources, in both the Resource and Fire Programs. The Division operates statewide on a landscape level, and so uses the system to accomplish two basic functions:

1. Spatially convey the Division's actions to the public, industry, and other land managers
2. Store and document information that is spatially linked and relevant to forest resources and wild land fire management.

To meet these goals, DOF initiated a GIS Committee to steer the program and to make recommendations to the division management team. The GIS Committee has put together a GIS plan that makes recommendations on the access to software and data, data structure, and system architecture.

DOF is a partner in the DNR wide ESRI Enterprise License Agreement (ELA). This license agreement allows anyone that has need of GIS software to have that access along with training. Also, the agreement allows the division to use the most current Esri ArcGIS software suite.

The division is replacing the outdated Forestry GIS website with new subject-specific web mapping applications that will be available to the public and internal users.



FY12 TIMBER SALES ON STATE LAND

Area	Total Sales Offered		Total Sales Sold		Acres	Vol. (MBF)
	# Sales	Acres	Vol. (MBF)	# Sales		
SSE	4	218	8011	4	218	8011
NSE	13	44	545	13	44	545
Kenai-Kodiak	5	177	1260	5	177	1260
Mat-Su	0	0	0	0	0	0
Coastal Total	22	439	9816	22	439	9816
Fairbanks	9	248	1416	9	248	1416
Delta	9	161	1718	8	68	642
Tok	7	148	4875	7	148	4875
Copper River	4	3434	806	4	3434	806
Northern Total	29	3991	8815	28	3898	7739
State Total	51	4430	18631	50	4337	17555

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

In FY12, DOF offered 51 sales on 4430 acres of land. Sale offerings totaled 18.6 million board feet. One sale available in the Delta area did not sell. Of the sales offered, 50 sales totaling 17.5 million board feet were sold on 4337 acres, and these sales went to 40 different Alaskan businesses.

The Southern Southeast Area continues to sell its Annual Allowable Cut while the other Areas are meeting local demand. Overall, in the past ten years, DOF sold 670 timber sales totaling over 230 million board feet. In FY13, the state timber sale program will focus on meeting increasing demand for timber sales in Southcentral and Interior while maintaining timber sale activity in Southern Southeast to help offset uncertain federal timber supply.

Biomass

DOF issued a preliminary Best Interest Finding (BIF) on May 17, 2012 for a negotiated long-term biomass sale near Tok. That finding was rescinded by the State Forester on September 14, 2012 as it was clear that there was competitive interest in such a sale. A revised preliminary BIF for a competitive long-term biomass sale was issued on December 17, 2012.

Statewide inventory projects continue to address the wood supply needs of existing, new, and developing value-added wood processing facilities. Biomass resource utilization is expanding across the state and forest inventory provides data on the quantity and location of the wood supply. Maintaining up-to-date forest inventory data supports DNR's mission to provide a sustained yield of forest products and uses.

Alaska State Forests

About two percent of state land in Alaska is in two designated state forests. In 1982, the Alaska Legislature established the 286,208-acre Haines State Forest in southeast Alaska. The following year, the legislature created the 1.78 million-acre Tanana Valley State Forest in the Interior.

In addition to the two designated state forests, much of the state's public domain land is available for multiple use, including forest management. DNR manages the state forests for a sustained yield of many resources. The primary purpose is the production, use and replenishment of timber while perpetuating personal, commercial and other beneficial uses of resources through multiple use management.

State forests provide fish and wildlife habitat, clean water, minerals, and opportunities for recreation and tourism. The main difference between state forests and other areas set aside by the legislature is that state forests provide timber harvesting for commercial and personal use (AS 41.17.200) while allowing other beneficial uses in the forests.

A DNR management plan guides the use of each state forest. Plan guidelines determine how to manage different uses to complement each other.

Haines State Forest

The abutments on the Porcupine Creek Bridge were rebuilt and an 80-foot modular steel bridge was installed replacing a 60-foot bridge. This gives the stream and additional 20 feet of clearance. The 80-foot bridge was transported from Icy Bay to Haines when the road system there was closed

out. The removed 60-foot bridge is being stored for use somewhere else on the forest.

Southeast State Forest

In 2010, the Legislature created the Southeast State Forest in southern southeast Alaska. This was the State's third state forest and included 25,291 acres of land in 20 parcels on the mainland and the islands of Prince of Wales, Gravina, Hecata, Kosciusko, Revillagigedo, and Tuxekan.

In 2011, the Legislature added an additional 23,181 acres to the State Forest. The additional parcels are located on Prince of Wales, Kosciusko, Tuxekan, Suemez, Dall, Revillagigedo, Mitkof, Kuiu, Zarembo, and Wrangell Islands.

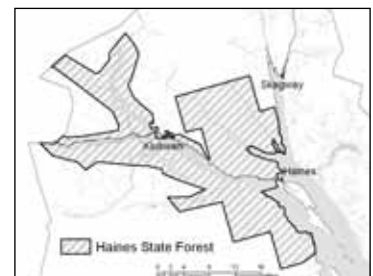
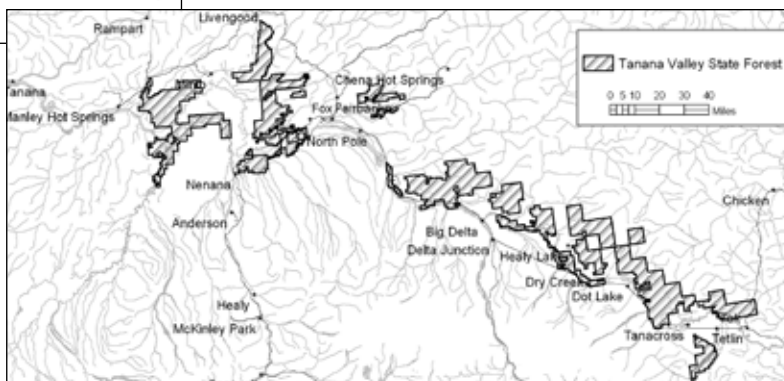
The lands were previously designated as General Use, which allowed for forestry activities but were susceptible to change of management intent or transfer to other ownership, both of which inhibited long term forest management. By inclusion into the Southeast State Forest, the lands can now be actively managed for long term forest productivity.

The Division is in the process of preparing a Forest Management Plan, until that time the applicable area plan guidelines will be followed.

To facilitate the management of the lands for long term forest productivity, 592 acres were thinned in 2010, 822 acres were thinned in 2011, and 424 acres in 2012 (1,838 acres total) using funds received through the American Recovery and Reinvestment Act.

Tanana Valley State Forest

The Tanana Valley State Forests 1.8 million acres lay almost entirely within the Tanana River Basin located in the east-central part of the Alaskan interior. 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. The Tanana River flows for 200 miles through the forest. Almost 90 per cent of the state forest (1.59 million acres) 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 (1.1 million acres) is located within the state forest. About 85 percent of the forest is within 20 miles of a state highway. A Citizens' Advisory Committee, authorized in the Tanana Valley State Forest Management Plan, serves in an advisory capacity and provides recommendations to the Division of Forestry on forest management issues on these lands and is a conduit of information between the agency and the public.

The forest is open to mining, gravel extraction, oil and gas leasing, and grazing, although very little is done. Timber production is the major commercial activity. The Bonanza Creek Experimental Forest, a 12,400-acre area dedicated to forestry research, is also located within the state forest. The Tanana Valley State Forest offers many recreational opportunities, including hunting, fishing, trapping, camping, hiking, dog mushing, cross-country skiing, wildlife viewing, snow machining, gold panning, boating, and berry picking.

A severe wind event in mid-September knocked down pockets of timber in the Tok and Delta Areas affecting approximately 30,000 acres. The division is evaluating the extent of the event, identifying concerns for insect and disease infestation, assessing the potential for biomass and timber sales which are initially expected to exceed market demand, and developing fire response plans locally.

Forest Health Protection Program

DOF's cooperative forest damage survey program with the U.S. Forest Service, FHP staff is a key component in the forest health protection strategy in Alaska, and includes both aerial and ground survey components. Aerial detection surveys in southeast, southcentral, and interior Alaska were prioritized by an informal pre-season survey of state, private, and federal forest users, and cover about 25-35% of the approximately 127 million forested acres in the state in a given year. Aerial detection mapping is an indispensable tool in documenting the location and extent of many active forest insect infestations and some disease damage.

The damage numbers recorded from the annual aerial detection surveys serve only as a sample of statewide conditions and generally do not represent the acres affected by pathogens, since many of the most destructive disease agents (i.e. wood decay fungi, root diseases, dwarf mistletoe, canker fungi, etc.) are not visible by aerial survey. Additional information regarding forest health provided by ground surveys and monitoring efforts is also included in the annual forest health protection report, complementing the aerial survey findings (refer to Information section at the end of this section). Forest Health Protection staff also continually work alongside many agency partners on invasive plant issues, including roadside and high-impact area surveys, public awareness campaigns, and general education efforts.

2012 Alaska Forest Health Protection Highlights

The Forest Health Protection (FHP) Program (State and Private Forestry, USDA Forest Service), together with the Alaska Department of Natural Resources Division of Forestry, conducts an annual, statewide Aerial Detection Survey across all land ownerships. In 2012, staff and cooperators identified over 491,000 acres of forest damage from insects, diseases, declines and selected abiotic agents on the 28.5 million acres surveyed. The total damaged acreage is down by 11% from 2011 levels, and down significantly compared to 2010. Much of the change since 2010 is due to substantial decreases in aspen and willow leaf mining and defoliation, less activity by spruce aphid in southeast Alaska, and reduced acreage of spruce newly-killed by bark beetles. However, defoliator damage to birch, cottonwood and other hardwood species is escalating. Although less alder dieback from alder

The following excerpted narrative text, tables and other graphics describing forest insect and disease activity are a very brief summary of Alaska's 2012 forest health conditions compiled from a statewide aerial pest detection survey and forest health ground assessments conducted by state and federal forest health staff and other forestry agency cooperators.

An electronic version of the full report will be made available at DOF's and R10 FHP's web sites: <http://forestry.alaska.gov/insects>
<http://www.fs.fed.us/r10/spf/fhp>

canker was mapped in 2012 (because previously affected areas were not remapped), this fungal disease remains a significant concern in south-central and interior Alaska.

The acreage of aerially-detected damage reported here serves only as a sample of statewide conditions in a state with 127 million acres of forested land. Generally, the acreage affected by pathogens is not accurately represented by the aerial survey, since many of the most destructive disease agents (e.g. wood decay fungi, root diseases, and dwarf mistletoe) are not readily visible from the air. The aerial detection survey appendix of this report provides a detailed description of survey methods and data limitations. Additional forest health information is acquired through ground surveys, monitoring plots, site visits, qualitative observations, and reports from forestry professionals and the general public. This information is included in the report, where possible, to complement the aerial survey findings. Forest Health Protection staff work alongside many agency partners on invasive plant issues, conducting roadside and urban surveys, public awareness campaigns, and general outreach and education efforts.

Insects

The amount of insect damage detected by aerial survey in 2012 decreased from 2011 for alder, aspen, willow, and hemlock. The aspen leaf miner, which was previously ranked as the number one pest in terms of acreage damaged, continued to decrease in activity with a 50% reduction in acreage detected from last year. There was also >50% reduction in the acreage of alder defoliation. Defoliated acreage for birch, cottonwood, and spruce increased. The greatest amount of defoliation occurred on birch (177,800 acres affected), about half on birch trees and half on dwarf birch. A variety of insects contributed to this defoliation, including several geometrid moth species, the rusty tussock moth, leaf rollers, and leaf beetles. The greatest amount of birch defoliation occurred on the Kenai and Alaska Peninsulas and in Interior Alaska.

Spruce defoliation from insects and disease increased slightly in 2012. However, there was very low acreage of spruce mortality due to limited bark beetle activity. The acreage affected by spruce aphid continues to decrease; another cold winter may push this pest to undetectable levels next year. A moderately sized outbreak of spruce budworm near Ninemile Slough may indicate that the population of this species is on an upward trend, but cool, wet weather over the next few years may help to control their population. Spruce beetle damage continues to decrease to the lowest level in decades, with less than 17,000 acres detected. Nonetheless, there was an increase in spruce beetle activity in Southeast Alaska, especially on Kupreanof Island. Beyond Kupreanof, outbreaks in Southeast Alaska were scattered in patches of less than a hundred acres.

Customs and border protection is doing an excellent job intercepting Asian gypsy moth (AGM) to prevent its introduction to Alaska. A bulk carrier vessel was intercepted near Ketchikan that contained AGM egg masses. The ship was not allowed into port until all egg masses were destroyed. AGM are an extremely destructive forest pest, feeding on over 600 different species of trees, and could be devastating to the Alaskan forests if established.

Hemlock defoliation appears to be increasing in Southeast Alaska. Large areas of defoliation were reported in September that was not detected during the aerial survey; ground checks confirmed large populations of hemlock sawfly, as well as geometrid caterpillars and other Lepidopteran species. A hemlock feeding geometrid moth, *Enypia venata*, was detected defoliating hemlocks and firs during early summer across the Pacific Northwest. On a positive note, many of the stands in Southeast Alaska that were heavily defoliated by sawflies in 2011 had recovered in 2012. A species of sawfly was also found feeding on shore pine in Southeast Alaska. There has been little research on pests of shore pine, so this is a potentially new host record. Specimens have been sent to the Smithsonian for identification.

Diseases

A project funded by the USFS Forest Health Monitoring Grant Program was initiated in 2012 to investigate the insect and disease agents and health status of shore pine, a lodgepole subspecies on peatland sites in southeast Alaska. Recent forest Inventory Analysis data has shown that shore pine was the only tree species in Alaska with a significant decline in biomass, highlighting critical knowledge gaps for this non-timber species. FHP is installing a network of 50 permanent plots across 5 locations in Southeast; plot installation will be completed in 2013. Surveys in 2012 found that western gall rust, foliage disease, and bole wounding were important damage agents of shore pine. There is particular interest in secondary insects and fungi that cause extensive localized mortality of western gall rust infected boles and branches. Damage to shore pine observed from the air and ground near Gustavus and Glacier Bay National Park may be caused by severe foliage disease, and warrants further attention in 2013.

A hemlock canker outbreak occurred along roadsides and riparian areas of Prince of Wales Island in 2012. Hemlock canker causes periodic mortality and branch dieback of western hemlock in southeast Alaska, but the causal fungus is unconfirmed. Samples were collected and sent to Gerry Adams (Professor Emeritus, University of Nebraska) for culturing and genetic sequencing, which yielded three potential canker pathogens: *Pezicula livida*, *Alternaria porri*, and *Collophora* sp. Inoculation trials with these species may be initiated in spring 2013. If inoculations result in



Roger Burnside, entomologist, on IPS beetle study.

symptom development and the fungi can be reliably reisolated from infected tissue, we will have identified the causal fungus and will gain valuable insight into hemlock canker epidemiology.

Dwarf mistletoe and stem decays are predominantly diseases of old forests with little annual fluctuation, and play important roles in gap-creation, wildlife habitat, and ecological processes in coastal rainforests. These important damage agents cannot be mapped through aerial survey. Hemlock dwarf mistletoe affects ~1M acres of western hemlock in southeast Alaska. Its occurrence is apparently limited by climate, becoming uncommon or absent above 500 ft in elevation and 59°N latitude (Haines, AK) despite the continued distribution of its host. Recent modeling efforts project that both hemlock and dwarf mistletoe will be “climate winners”, with increases in suitable habitat over the next century. Stem decays (heart rots) are primary disturbance agents in virtually every old-growth forest of coastal Alaska, where they cause substantial losses in timber volume. In stands managed for wildlife and non-timber objectives, silvicultural practices can promote stem decay for wildlife benefits.

Moderate to severe outbreaks of spruce needle rust (*Chrysomyxa ledicola*) occurred in many regions of Alaska in 2012, including Lake Clark to Katmai National Parks, the western Kenai Peninsula, and peatland sites across southeast Alaska. Aerially dispersed rust spores from spruce trees coated miles of lake and coastal water surfaces and washed up on shorelines in heavily affected areas, similar to the event reported in Kivalina (NW Alaska) in 2011. Levels of disease fluctuate significantly from year to year depending on the favorability of weather conditions. The aerial survey does not coincide with peak symptom development, and considerably underestimates disease levels.

Non-infectious Disorders

Yellow-cedar decline has been mapped on more than 400,000 acres over the years across an extensive portion of southeast Alaska, and the 2012 aerial survey mapped over 17,000 acres of active yellow-cedar decline (reddish dying trees). This climate-driven decline is associated with freezing injury to cedar roots that occurs where snowpack in early spring is insufficient to protect fine roots from late-season cold events. A comprehensive Yellow-Cedar Strategy is being developed in collaboration with the Regional Office, the National Forest System and other cooperators (expected 2013). This document will provide information on yellow-cedar biology and decline, and guidance on yellow-cedar management for specific regions and Ranger Districts in Alaska.

The amount of insect damage detected by aerial survey in 2012 decreased from 2011 for alder, aspen, willow, and hemlock.

Customs and border protection is doing an excellent job intercepting Asian gypsy moth (AGM) to prevent its introduction to Alaska.

Significant windthrow occurred in the Interior during a mid-September storm, affecting an estimated 1.4 million acres of forest along the upper Tanana Valley. The most severe damage (about 30,000 acres with >50% downed trees) occurred between Delta Junction (Little Salcha River) and Tanacross. The combination of wind and heavy snowloads in winter 2011/2012 caused extensive damage along a 20 mile stretch of the Seward Highway on the Kenai Peninsula, affecting spruce, birch and other hardwoods. No increase in northern spruce engraver has been detected in traps in response to the Kenai disturbance. These two events above were not detected in the Aerial Detection Survey; the Interior event occurred after the survey, and leafout obscured the windthrow damage on the Kenai. The majority of windthrow damage detected in the aerial survey (~6,000 acres) was mapped in the Interior, south of McKinley Crossing.

Invasive Plants

The Field Guide to Alaska Grasses by Stoney Wright of the Alaska Plant Material Center and four coauthors was completed this year, and has already proven popular among Alaska's resource professionals. FHP support ensured that several grass species that are invasive in Alaska were included in this guide.

The invasive waterweed, *Elodea* spp. has now been found in 13 lakes or waterways in Alaska. The most recent finds, in September, 2012, were Stormy and Daniels Lakes on the Kenai Peninsula. This year the Fairbanks Cooperative Weed Management Area (FCWMA) tested the use of a small suction dredge for removing *Elodea* from Chena Slough. In September, the Fairbanks Soil and Water Conservation District hosted an *Elodea* information session for the State of Alaska, an event which prompted the state to determine which state agency has responsibility for managing this damaging aquatic invasive.

In 2012, FHP partnered with CES and the Fairbanks Cooperative Weed Management Area to host a public forum on the bird vetch problem in Fairbanks. In contrast to a similar public meeting on bird vetch four years ago that was attended by only four members of the public, this meeting attracted forty people, indicating that many more citizens are recognizing the threat of this invader. Attendees described their efforts to battle severe bird vetch infestations on their

own properties. A new publication on bird vetch control was distributed, and managers described a new program to prevent the spread of bird vetch into new subdivisions.

In 2012, a significant new infestation of spotted knapweed was detected near Haines, and the large infestation near Sutton (NE of Palmer) was chemically and mechanically treated. A growing creeping thistle problem in the Anchorage Borough has been taken on by the Alaska Division of Agriculture. In 2012, FHP support allowed the Division of Agriculture to treat over 24 acres of infested land across approximately 30 sites. The Fairbanks Soil and Water Conservation District treated a small creeping thistle infestation found at the Stevens Village airport in 2011. Treating this infestation was critical because it was the only documented infestation north of the Alaska Range.

Selected Essays from 2012 Alaska Forest Health Protection Report

Beetle Response to Recent Wind Events and Other Disturbances

Roger Burnside, Alaska Division of Forestry, Anchorage
Ken Zogas, R10 USFS Forest Health Protection, Anchorage

The bark beetles responsible for the majority of spruce mortality in Alaska's forests are the spruce beetle (*Dendroctonus rufipennis*) and northern spruce engraver beetle (*Ips perturbatus*). These beetles contribute positively to forest health by removing old, slow growing mature trees or trees weakened by natural or human-caused disturbances. These trees are the preferred breeding material for bark beetles. Further, bark beetles contribute to the decomposition of these trees by boring into the phloem of the tree bole to lay their eggs, thus providing an entrance court for decay fungi. In a healthy forest with low, but persistent, beetle populations, bark beetles are not only controlled by native parasites and predators, but also by the slow pace at which their preferred breeding material becomes available. However, in the event of a disturbance to this environment, the balance can be quickly upset.

Disturbance can take many forms. Naturally occurring events include fire, flooding, windstorms, drought, and erosion, particularly caused by water that undercuts riverbanks and causes trees to topple. Human-caused disturbance can result from logging with poor sanitation practices, road or survey line construction, and land clearing. These activities can produce an unnaturally large volume of weakened trees that beetles rely on for breeding material (Figure Blow-down). Bark beetles are capable of responding to such opportunities very quickly. A year or two of after a large-scale disturbance, they begin producing progeny in numbers large enough to successfully attack and kill healthy trees.



AWFCG: Tami Defries (AFS for Kent Slaughter, Manager); Nathan Lojewski, Chugachmiut; Ron Knowles, USFS; Doug Alexander (Chair), USFWS; Dean Brown, DOF; Mike Burkey, AVCP; Charlie Sink, Chugachmiut; Clinton Northway, Tanana Chiefs; Dan Warthin, NPS. Photo by Maggie Rogers.

The spruce beetle is the primary insect disturbance and mortality agent in Southcentral and Southwestern Alaska, and much less so in the Interior and Southeast Alaska, mostly due to the overall climatic conditions in these regions that are either too dry (Interior) or too wet (Southeast). These climatic extremes are less than optimal for the spruce beetle and limit the beetle's ability to efficiently disperse to new host trees and also reduce brood success in the host which limits the beetle's ability to reach a critical population size essential to mass-attack and overcome defense systems of apparently healthy spruce. Historically, most large spruce beetle outbreaks (i.e., >1,000 acres in size) have originated from major stand disturbances, such as blowdown, logging, or right-of-way clearing. Stand susceptibility to spruce beetle attack is influenced by stocking density, since slow growth and moisture stress predispose trees to attack. Storm events and the resultant stem breakage and blowdown of mature spruce provide favorable habitat to increase brood populations for successful mass attacks of standing, healthy trees.

Storm activity is typically most severe along the coastal fronts of western and Southcentral Alaska, which can also impact broad areas as storms move inland. Dispersed damage from seasonal storms provide ample brood material to maintain low, but sustained, beetle populations until conditions are favorable for the next large outbreak. In Southcentral Alaska, high wind events are a common source of disturbance and have resulted in large-scale, long-duration outbreaks of spruce beetle activity. For example, the 1987 Mallard Bay wind event (several hundred acres of blowdown) on the Kenai Peninsula set the stage for a spruce beetle epidemic that impacted the whole of Kachemak Bay. A similar event in the 1970s near Caribou Creek resulted in an epidemic that not only swept through Resurrection Valley, but also through the Big and Little Indian Valleys and beyond, into the Kenai National Wildlife Refuge.

While wind has not been considered a major disturbance factor in Interior Alaska, climate changes may be reversing this trend. A series of severe wind events along the upper Tanana Valley in mid-September resulted in a 70-mile-long swath of stem breakage, blowdown and tipped spruce and hardwoods over the region. It is estimated that close to 1.4 million forested acres were damaged across the region. Approximately 32,000 acres of moderate to severe damage is accessible and near communities along the existing road system presenting the opportunity to implement bark beetle mitigation management activities. The northern spruce engraver is expected to capitalize on the increase in brood material from these storms during the next few years, thereby increasing the chance of a future outbreak.

The bark beetles responsible for the majority of spruce mortality in Alaska's forests are the spruce beetle and northern spruce engraver beetle.

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Weather also plays an important role in beetle population dynamics following a disturbance. Both species of beetle respond favorably to warm, dry weather, particularly in the spring, when their mass dispersal and attack flights occur. Cool, wet weather can either prevent this flight altogether, or allow it to proceed at such a slow pace that mass attacks are not possible. A large area of blowdown on the northern Kenai Peninsula resulting from a severe storm during the winter of 2011/2012 set the stage for a potential outbreak of the northern spruce engraver or spruce beetle in the spring of 2012. Forest Health Protection responded by placing a series of pheromone-baited monitoring traps throughout the area. These traps, along with numerous ground checks of the area throughout the summer, detected almost no beetle activity. It is likely that one of the coolest and wettest springs and early summers on record prevented mass flights that might have led to an outbreak. The recent wind events in Interior Alaska present a unique and challenging opportunity for Forest Health Protection and the Division of Forestry to document success or failure of beetle attacks in the residual, damaged stands and the efficacy of mitigation activities.

Defoliators: Populations Rise and Fall Statewide

Rob Progar, USFS Research Entomologist, PNW Research Station, Bend, OR

Jim Kruse and Nicholas Lisuzzo, USFS Forest Health Protection, Fairbanks

Defoliating insects eat the leaves or needles of forest trees and are found throughout Alaska on all tree species. Defoliators significantly affect both conifer and deciduous trees in Alaskan ecosystems, and can cause tree mortality with consecutive years of defoliation. In maritime ecosystems dominated by conifers, such as Prince William Sound and Southeast Alaska, defoliating insects tend to be more significant agents of change. If complete defoliation of conifers occurs early in the summer, before buds have been formed for the following year, trees can be badly damaged or even killed.

When defoliator populations are epidemic, vast acreages can be affected. During an outbreak, nearly every tree in a stand can be damaged to varying degrees. In addition to the effects on individual tree physiology, defoliators can also have ecological and socioeconomic impacts on wildlife habitat and forage, aquatic system productivity, timber and property values, forest aesthetics and recreation. Extensive hillsides of brown or red defoliated habitat in the midst of an outbreak can be quite alarming. Fortunately, the effect is often ephemeral; the dead leaves or needles drop to the ground and the plants re-foliate later in the season or during the following spring. Defoliation can provide a number of ecological benefits: larvae represent an abundant

food source for many species of birds and other wildlife; increased light penetration to the understory can increase herbaceous browse for ungulates; and leaf litter and larval scat inputs create a pulse in soil nutrients.

Defoliator outbreaks tend to be cyclic and closely tied to weather conditions. Dramatic increases in defoliator populations require synchrony between larval emergence and tree bud break (food availability). Weather conditions affect insect development, reproduction and dispersal, as well as host phenology. For example, high temperature during pupation and egg-laying of western black-headed budworm increases the number of larvae that hatch successfully. In the early 1950s, favorable climate for budworm development resulted in millions of acres of defoliated western hemlock in Southeast Alaska. Outbreaks of spruce aphid are closely tied to the survival of overwintering adults. Other species appear to be genetically predisposed to outbreak in regular cycles of 10 to 30+ years.

The last few summers marked a shift from internal leaf feeders to external leaf feeders as the most common sources of insect damage in Alaskan forests. Over 280,000 acres of external feeding damage were observed on Alaskan hardwood trees and shrubs, particularly birch and alders. Unlike many of the leaf miners, which tend to attack only a single host species or genus, external leaf feeding insects are often polyphagous, feeding on a wide variety of hosts. Currently, the most active defoliating species belong to the moth families Geometridae and Tortricidae. The species responsible for damage vary regionally. The most destructive geometrids in 2012 were the Bruce spanworm (*Operophtera bruceata*) in Southcentral Alaska, the northern marbled carpet moth (*Dysstroma citrata*) in Interior Alaska, and the Bruce spanworm as well as the variable girdle moth (*Enypia venata*) in Southeast Alaska.

In 2012, aerial detection surveys documented over 177,500 acres of severe defoliation of birch trees and shrubs. Approximately 86,000 acres of this defoliation was on dwarf birch (*Betula nana*, *B. glandulosa*), and 80,000 acres on birch trees (*B. neoalaskana*, *B. kenaica*). Much of this activity was observed on the Kenai and Alaska Peninsulas, but was also common throughout Interior Alaska. The primary insects found feeding on birch trees and shrubs were the birch leaf roller (*Epinotia solandriana*) and rusty tussock moth (*Orgyia Antigua*) in Interior Alaska, and a variety of geometrid moths in Southcentral Alaska. The characteristic yellowing of birch foliage, caused by birch aphids and other piercing-sucking insects, was observed in pockets scattered around Interior Alaska (10,000 acres total).

Several species of geometrid moths and sawflies were abundant on alder in 2012. The incidence of alder defoliation remained

high, with about 58,000 acres observed, primarily south of the Alaska Range. The rusty tussock moth caused scattered alder defoliation north of the Alaska Range. All of these insects cause partial to complete defoliation; it is very difficult to distinguish between their feeding patterns from the air.

In 2012, 13,000 acres of damage to aspen caused by external leaf feeders were detected during aerial surveys, most notably the large aspen tortrix. Of 27,000 total acres of cottonwood defoliation, leaf-feeding beetles caused 9,500 acres of damage to cottonwood. Willow defoliation was noted on 26,500 acres, and the rusty tussock moth was the most common insect detected on willow in ground checks.

Aerial Detection Survey

Each year we survey approximately 25 percent of Alaska's 127 million forested acres, which equates to approximately 5 percent of the forested land in the United States. Unlike some regions in the United States, we do not survey 100 percent of Alaska's forested lands. The short summers, vast land area, airplane rental costs, and limited time frame during which damage signatures are visible all require a strategy to efficiently cover the highest priority areas given the available resources. The surveys we conduct provide a sampling of the forests via flight transects. Due to survey priorities, various client requests, known outbreaks, and a number of logistical considerations, some areas are rarely or never surveyed, while other areas are surveyed annually.

Prior to the annual statewide forest conditions survey, letters are distributed to various agencies and other landowner partners for survey nominations, and our surveyors use this and other information to determine which areas should be prioritized. Areas that have several years' worth of data collected are surveyed annually to facilitate analysis of multi-year trends. In this way, general damage trend information for the most significant, visible pests is assembled and compiled in this annual report. It is important to note that for much of Alaska's forested land, the aerial detection surveys provide the only information collected on an annual basis.

Insect & Disease Information

Alaska Forest Health Specialists can be contacted as follows:

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Questions pertaining to overall coordination of DOF's Statewide Forest Health programs and activities on state and private lands should first be directed to:

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Div. of Forestry, State Office
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Anchorage, AK 99501-3566
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2012 FOREST INSECT AND DISEASE ACTIVITY

Forest insect and disease activity detected during aerial surveys in Alaska in 2012 by land ownership¹ and agent.

All values are in acres².

Agent	National Forest	Native	Other Federal	State & Private	Total
Abiotic causes ³	1,345	177	2,244	12,023	15,789
Alder defoliation ⁴	1,004	14,089	20,260	23,114	58,467
Alder dieback ⁵	4	2,392	8,965	5,062	16,423
Aspen defoliation ⁴			46	1,255	1,301
Aspen leaf miner		18,272	12,002	38,930	69,204
Betula nana defoliation ⁶		5,292	60,559	20,278	86,129
Birch aphid		966	3,199	6,579	10,744
Birch defoliation ⁶	476	5,838	56,559	18,085	80,958
Black-headed budworm	80				80
Cedar decline (current) ⁷	16,067	294		984	17,346
Conifer defoliation	1,061	1,554	50	68	2,734
Cottonwood defoliation ⁴	2,831	2,740	16,829	4,770	27,169
Hardwood defoliation	123	1,738	0	825	2,687
Hemlock sawfly	5,056	21	64	340	5,480
Large aspen tortrix		6,138	603	5,459	12,199
Porcupine damage	30				30
Shore pine foliar damage	129	60	706	437	1,332
Spruce beetle	1,780	1,518	2,931	2,023	8,252
Spruce broom rust		40	31	17	87
Spruce budworm	85	11,587	1,415	53	13,140
Spruce engraver beetle		1,337	3,427	2,460	7,224
Spruce engraver and spruce beetle	8	1,324	2,003	1,015	4,342
Spruce needle aphid	796		3	74	873
Spruce needle cast				93	93
Spruce needle rust			32		32
Spruce/larch budmoth				10	10
Willow defoliation ⁴	727	4,471	13,327	8,044	26,569
Willow leafblotch miner		4,263	7,698	9,184	21,145

¹ Ownership derived from the 2008 version of Land Status GIS coverage, State of Alaska, DNR/Land records Information Section. State & private lands include: state patented, tentatively approved, or other state-acquired lands, and patented disposed federal lands, municipal lands, or other private parcels.

² Acre values are only relative to survey transects and do not represent the total possible area affected. Table entries do not include many of the most destructive diseases (e.g., wood decays and dwarf mistletoe), which are not readily detectable in aerial surveys.

³ Damage acres from some types of animals and abiotic agents are also shown in this table. Mapped abiotic damage can include windthrow, snow loading, freezing injury, flooding snow slides and landslides.

⁴ Significant contributors include alder sawfly, some internal leaf miners, and leaf rollers for the respective host. Acreage affected by aspen leaf miner is listed separately and not included in this total.

⁵ Alder dieback is the new description used to label alder stem mortality mapped during the survey. Past reports have referred to it as alder canker, but verification of alder canker requires ground-checks and dieback symptoms are the damage signature observed from the air.

⁶ Defoliation to birch trees and dwarf birch has been reported separately. "Dwarf birch defoliation" represents defoliation of heath vegetation (dwarf birch, Labrador tea and spirea) primarily caused by several external leaf-feeding insects, while birch tree defoliation is caused by a combination of internal and external leaf-feeding insects.

⁷ Acres represent only areas with actively dying yellow-cedars. More than 400,000 acres of cedar decline have been mapped over the years in Southeast Alaska.

⁸ Acres on which Northern spruce engraver beetle (*Ips perturbatus*) and spruce bark beetle (*Dendroctonus rufipennis*) activity occurred in the same stands.



1. Sustained winds from the September 2012 storms along the upper Tanana Valley created massive forest blowdown in several communities along the road system. At Tanacross Native Village (10 mi. west of Tok), 80% of the standing spruce forest was leveled and residual trees are now severely leaning.

2. Deputy Director Dean Brown presents Arbor Day Foundation award to Scout Troop 367 and Cub Pack 367 in Palmer on Arbor Day, May 21 at the Pioneer Home.

3. Alaska Community Forest Council members on field trip to Westchester Lagoon in Anchorage. Front row L to R: Jim Smith, Laura Charlton, Francis McLaughlin, Christie Hite, Lisa Moore. Back row: John O'Brien, Brent Hove, David Osborn, Michael Rasy, Pat McArdle, Nickel LaFleur, Don Bertolette, Stephen Nickel. Photo: Patricia Joyner.

4. Alaska Community Council Forest Council members look at wind storm damage at Russian Jack Springs Park I Anchorage on 11/9. L to R: Isobel Roy, John O'Brien, Laura Charlton, Lisa Moore, Michael Rasy, Patricia Joyner, Hans Klausner, Monique Anderson, Jim Labau. Photo: Stephen Nickel

Forest Stewardship Program

The purpose of the Forest Stewardship Program is to provide private landowners with information for making decisions about forest resources. At the request of landowners, Division staff prepares Forest Stewardship plans which include field reconnaissance and the best available forest resources information. Alaska Native Corporations are provided grants for resource professionals to prepare Forest Stewardship plans. Limited financial assistance is available for implementation of projects consistent with Forest Stewardship plans and best management practices. The Forest Stewardship Program is a federally funded program administered by the Division of Forestry.

2012 Highlights

- Two Alaska Native Corporation were awarded grants to begin a Forest Stewardship plans, and two Alaska Native Corporation completed Forest Stewardship Plans for their land.
- Forest Stewardship plans were prepared for and signed by 22 individual Alaska forest landowners.
- Wildfire fuel reduction projects were completed by 30 Alaska homeowners.
- USFS competitive grant for riparian forests completed a season of field measurements and data analysis.
- Reforestation improvement work focused on establishment of balsam poplar by cuttings, thereby furthering biomass energy development.

Planning by Alaska Native Corporations and Trusts

Native corporations and reservations are the largest private landowners in Alaska, and providing grants to Alaska Native Corporations for forest planning is an important part of the Forest Stewardship Program. In 2012, Forest Stewardship Plans were completed for two ANCSA Corporations: Natives of Kodiak for 16,391 forested acres and Ouzinkie Native Corporation for 33,197 forested acres. Reforestation and pre-commercial thinning were main objectives of these plans. Forest Stewardship planning grants were awarded to Ouzinkie Native Corporation and The Kuskokwin Corporation during this period. Aggregate amounts for new planning grants were \$89,000 and 547,382 acres. Five additional ANCSA Corporation plans are in progress. Stand improvement, forest road maintenance, cultural sites, and wildlife habitat were important elements of the plans. Since the program began in 1992, a total of 44 Forest Stewardship plans were prepared and signed by ANCSA Corporations.

Planning by Individual Landowners

For private lands in individual ownership, plans were prepared and signed by 22 landowners covering 161 forested acres. Since the program began in 1992, a total of 799 plans have been prepared and signed covering 44,169 forested acres. Participation is greatest on the Kenai Peninsula with the Matanuska-Sustina Borough and Tanana Valley also having many participants. Private landowner assistance on the Kenai Peninsula has been aided by funding from the Kenai Peninsula Borough Spruce Beetle Program. The most common management objective is reforestation after spruce beetle kill. Many participating landowners have strong interest in aesthetics and wildlife. Defensible space from wildfire is a growing concern.

Cost-Share Assistance

Forest Stewardship Program personnel continued to implement components of the National Fire Plan (NFP). Cost-share funding for practices has come Wildland Urban Interface (WUI) fuels reduction grants from the Western States Fire Managers, and also the Kenai Peninsula Borough. Accomplishments reported here are home inspections, written defensible space plans, and cost-share grant agreements. Acres treated for fuels reduction are reported elsewhere as NFP accomplishments. In 2012, Wildland Urban Interface (WUI) pass-through grants for fuels reduction were approved to begin for 52 landowners. Final inspections were performed for 30 landowners paying \$61,124. WUI grants are an important outreach method for Forest Stewardship.

Forest Stewardship Plan Monitoring

To comply with federal requirements, monitoring of past Forest Stewardship Plans was continued. In 2011, Monitoring of past Forest Stewardship Plans was conducted. 45 plans were monitored and 82% were judged to be adequately following plan. For aggregate forested acreage, 98% percent were adequately following plans. Most had performed one or more recommended management activities on their property. One Alaska Native Corporation plan, Goldbelt Inc., was monitored and found to following the Forest Stewardship Plan. For Goldbelt Inc., substantial forest road repair and pre-commercial thinning had been completed utilizing both Forest Land Enhancement Program (FLEP) and Environmental Quality Incentives Program (EQIP).

Competitive Grant Projects

In 2011, Forest Stewardship program received two competitive grants from US Forest Service. The grant titled Riparian Management Evaluation in Coastal Working Forests has Sealaska Corporation as principle partner and Dr. Doug Martin as principle investigator. The project was began in 1992 and evaluates salmon stream conditions before and after timber harvest with stream buffers as required by the Forest Resources and Practices Act. The competitive grant will add to the field measurements and prepare a comprehensive report of findings. The grant titled Program Development for Training Rural Forest Technicians will help train personnel in rural communities that work to supply biomass to wood energy systems. The initial target community is Fort Yukon but other communities are also sought. The training program is expected as the wood energy facility nears operation.

Regeneration, Nurseries, and Genetic Resources

Regeneration, Nurseries, and Genetic Resources (RNGR) funding is provided by the US Forest Service as part of the Forest Stewardship Program. RNGR enables progress in reforestation and related issues. In 2012 efforts continued to develop low cost regeneration methods for wood energy biomass. Poplar cuttings were collected and planted on the Willow Experimental Forest. The results were incorporated into an emerging energy technology fund proposal submitted to Alaska Energy Authority.

Additional Accomplishments

Stewardship staff also participated in a variety of public information events offering forestry and landowner assistance information. Events included presentations at Community Wildfire Protection Plan meetings, Firewise workshops, Soil and Water Conservation District meetings, Arbor Day events, Student presentations, and fairs.

Forest Stewardship Committee

The Division of Forestry receives guidance from the Forest Stewardship Committee. The committee is comprised of representatives from a broad range of Alaska private landowner interests. Areas of discussion include grant and cost-share rates, eligibility criteria, and Forest Stewardship plan requirements. The committee met twice in 2012. Important topics of consideration in 2012 were wood energy development and forest planning on private lands including reforestation.



Spruce log 'bundles' being loaded on the ship Susaki Wing for transport to overseas markets. Jeff Graham, Forest Stewardship program. Ouzinkie Native Corporation Forest Stewardship plan photo by Keith Coulter.

2012 FOREST STEWARDSHIP COMMITTEE

Val Barber
University of Alaska, Palmer

Daniel Consenstein
USDA Farm Service Agency, Palmer

Tom Dearlove
Kenai Peninsula Borough, Soldotna

Doug Blossom
American Tree Farm System, Kenai

Clare Doig
Forest Industry Representative,
Anchorage

Jim Durst
Alaska Department of Fish and Game,
Fairbanks

Jeff Graham
Alaska Division of Forestry, Palmer

Mike Green
Landowner representative,
Fairbanks

George Matz
Kachemak Conserv. Society, Homer

Dan Parrent
USDA Forest Service, Anchorage

Will Putman
Tanana Chiefs Conference, Fairbanks

Dorothy Melambianakis
Kachemak Heritage Land Trust,
Homer

Mitch Michaud
USDA Natural Resources
Conservation Service, Kenai

Phil Shephard
Great Land Trust, Anchorage

Alaska Community Forestry Program

Trees growing in communities require extra care to be healthy, beautiful, and safe but they reward this attention with economic, environmental, and social benefits. The Division of Forestry helps communities maximize these benefits through effective management. The state program coordinator and community assistance forester offer technical, educational, and financial assistance to local governments, state and federal agencies, tree care professionals, and nonprofit organizations. A partnership with the U.S. Forest Service provides federal funds to administer the state's program.

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

- Community forests provide essential benefits we cannot live without
- A healthy community forest doesn't happen by chance; it 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; good management of one helps the other.

The Alaska Community Forest Council helps set priorities for the program and provides expertise and advice to the division. The 15 members represent the diversity of the state and a broad spectrum of interests and experiences. Members are also valuable partners in local community forestry efforts.

2012 Accomplishments

Sitka Community Forest Management

The CF Program assisted the City & Borough of Sitka to inventory public trees and assess forest resources. Division staff and Community Forestry Consultants, Inc. trained city employees to assess tree health, condition, and maintenance needs, and enter data on each tree and site into the city's Geographic Information System.

The inventory and assessment provides a foundation for developing long term goals and will help the city make informed decisions about policy, management, and budgetary priorities. It establishes a baseline for measuring change and the results of management strategies over time. A management plan will be completed in early 2013 to address threats to forest health and sustainability. The plan includes standards and guidance for proper species selection, tree planting, and care that will help the city manage its trees and forests cost-effectively.



Arbor Day Foundation Director John Rosenow recognizes Palmer Boy Scout Troop 367 and Cub Scout Pack 367 for "representing the spirit of the tree planter's holiday." This was one of 16 awards presented at the Lied Conference Center in Nebraska City, Nebraska on April 18. Accepting the award are Scout Master Duane Robison and former Scout Collin Christensen, who is now attending college in Nebraska. The Alaska Community Forest Council funded Mr. Robison's airfare to Nebraska.

Soldotna Community Forest Management

The division awarded a \$2,000 grant to the City of Soldotna upon completion of an annual work plan to implement its 2012 management plan based on tree inventory data. The city purchased and planted trees chosen to increase the city's species diversity which was identified as a high priority in the management plan.

The Urban Forest of Tomorrow Conference

The Community Forestry Program partnered with the Pacific Northwest Chapter of the International Society of Arboriculture, the University of Alaska Cooperative Extension Service, Alaska Community Forest Council, and the U.S. Forest Service to hold a two-day conference at the University of Alaska Anchorage in September. The conference brought together professionals from all over Alaska to discuss sustainable development, green infrastructure and urban forest management. Local and out-of-state experts spoke in the mornings and afternoon field trips and demonstrations gave participants a closer look at the benefits and challenges of community forestry.

Arbor Day Foundation Celebration Award

Boy Scout and Cub Scout troops 367 in Palmer received the Arbor Day Foundation Celebration Award. This was the second Alaskan organization to receive the award (Fairbanks Arbor Day Committee 2005). The Alaska Community Forest Council provided travel assistance to pack leader Duane Robison so he could receive the award at the Arbor Day Foundation's Lied Lodge and Conference Center in Nebraska City.

Tok Tree Planting

An American Forests grant funded 2,700 birch seedlings, grown at Risse Greenhouse in Fairbanks, for planting in Tok. Division of Forestry staff spent two days with teachers and students in Tok, grades K–8, planting 600 birch seedlings.

The birch will help reforest areas where spruce have been removed to lessen the threat of wildfire to the school and community and fuel the boiler that supplies the school's heat and electricity. The remaining seedlings will be planted in 2013.

Education

The Community Forestry Program provided training for 488 people from 14 communities in 2012. Educational events were offered in Anchorage, Soldotna, Sitka, Tok, and online. Program staff made presentations to Anchorage Master Gardeners, American Society of Landscape Architects, Providence Hospital, UAA grounds crew, the university's Opportunities for Lifelong Education classes, Tok School students, local governments, agencies, businesses, and other professionals.

Presentations and training covered a variety of topics including tree selection, planting, transplanting and maintenance; pruning in public and commercial landscapes; public tree inventories, management, and annual planning; planning for and responding to storms; writing specifications for tree planting and maintenance; identifying and managing insect and disease pests, and designing for trees in cities.

Community Forestry Organizations

In 2012, 212 volunteers donated 1,042 hours for community forestry projects in Alaska. Citizen groups around the state organized volunteers, raised funds, supported tree planting and care, and offered educational programs. The most active organizations are:

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

Tree Cities USA

- City of Wasilla
- Joint Base Elmendorf-Richardson
- Fort Wainwright
- Municipality of Anchorage
- Ketchikan Gateway Borough
- Eielson Air Force Base
- City & Borough of Sitka
- City & Borough of Juneau

Tree Lines USA

- Chugach Electric Association
- Golden Valley Electric Association
- Matanuska Electric Association

Tree Campus USA

- University of Alaska Anchorage and University of Alaska

2012 ALASKA COMMUNITY FOREST COUNCIL

Monique Anderson, Sitka

Don Bertolette, Anchorage

Laura Charlton, Ketchikan

Brent Hove, Anchorage

Hans Klausner, Kodiak

Jim Labau, treasurer, Anchorage

Pat Leary, Anchorage

Nickel LaFleur, Anchorage

Lisa Moore, chair, Sitka

John O'Brien, Fairbanks

David Osborn, Seward

Michael Rasy, secretary, Anchorage

Isobel Roy, Anchorage

Curtis Stigall, Sterling



Stephen Nickel, Community Assistance Forester, pauses for a photo and interview while training Sitka Parks and Recreation employees to assess tree condition and maintenance needs, prescribe treatments and to enter the information into the city's new GIS based tree inventory. The training is part of a cooperative agreement between the city and state to complete an inventory of publicly owned trees and develop an urban forest management plan that the city can use to efficiently and cost effectively perform maintenance and enhance the community through its trees. Photo by James Poulson, Daily Sitka Sentinel.



2012 IN PHOTOS

1. Darla Theisen, AICC State Logistics. Photo: Maggie Rogers
2. Jaci Toth, Finance Chief
3. Sharon Kilbourn-Roesch, Kenai Fire Prevention and Tom Kurth, Fire & Aviation Program Manager. Photo: Maggie Rogers
4. Robert Schmoll, Fire Operations Forester; Darla Theisen, AICC State Logistics; Maggie Rogers, PIO; and Tom Kurth, Fire & Aviation Program Manager
5. Robert Schmoll, Fire Operations Forester and Tom Kurth, Fire & Aviation Program Manager. Photo: Maggie Rogers
6. Pete Buist, PIO and Rich Baldisaro, Base Camp Manager





2012 IN PHOTOS

1. Tasha Shields, WFRT Fairbanks Area. Photo: Maggie Rogers
2. Tom Kurth, Fire & Aviation Program Manager; Maggie Rogers, PIO and Pete Buist, PIO
3. Karen Gordon, Northern Region Admin Officer; Liz Coots, Admin.; Steve Cullander, EFF; Jacquelyn Bailey, NR Accounting Tech. Photo: Maggie Rogers
4. Peter Butteri, USFWS SITL and Will Hutto, Kenai-Kodiak Area Office BCMG
5. Mark Eliot, Northern Region Forester and Kathryn T. Pyne, Fairbanks Area Forester setting up Tanana Valley Fair booth. Photo: Maggie Rogers





2012 IN PHOTOS

1. Jim Schwarber, Forest Planner/PIO
2. Jeremy Zidek and Maggie Rogers, PIO
3. Dispatch Workshop (L to R):
Sue Christensen, Martin Maricle,
Hilary Shook, Danny Newby.
Row 2: Janet Ladd, Barb Bradley, Marcie
Ugstad, Marilyn Rodriguez, Diane
Campbell, Arturo Frizzera, Maria Wade,
Rachel Dunne, Carolyn Nelson, Julie
Vorachek, Jodi Bradey, John Gregg, Stephanie
Sweetsir, Ann Connor.
Row 3: Peter Talus, Jeff Wickett, Rod
Thorsen, Chris Olsen, Darla Theisen and
Paul Beberg, Allison Buckingham, Bob
Dickerson, Steve McCombs, Mike Kendall,
Ray Crowe, Anne Burns, Linn Clausen
4. Jason Rockvam and Maggie Rogers at
Susitna State Forest Meeting
5. Ann Nelson, Assistant A.G. and Dalton
6. Martin Maricle, Support Forester and
Carolyn Nelson, SLC Coordinator at Spring
Ops. Photo: Maggie Rogers





2012 IN PHOTOS

1. Steve Scales, WFRT IV – Kenai-Kodiak; LeAnne Moore, Admin Asst. – Kenai-Kodiak; and Patrick Quince, Kenai-Kodiak
2. Danny Newbie, WFDISPATCHER III, Delta; Al Edgren, Delta Area Forester; and Gary Mullen, Copper River Area Forester
3. Kevin Saxby, Superior Court Judge and former Asst. A.G. receiving award from State Forester Chris Maisch.
Photo: Maggie Rogers
4. Chris Maisch presenting Kathryn “K.T.” Pyne award.
5. Tom Dean and Tanker 55 in McGrath.
Photo: Dennis Blankenbaker



WILDLAND FIRE MANAGEMENT

2012 Fire Season

The Division of Forestry approaches the wildland fire season with an extensive training and preparation agenda for returning employees, local cooperators, emergency hires, legislative and government officials. The full time fire staff of 34 employees lays out the schedule, organizes hiring, and plans the workload for the 181 seasonal employees, plus an undetermined number of emergency hires. Division staff works cooperatively with local volunteer fire departments, the BLM Alaska Fire Service, U.S. Forest Service, and large numbers of temporary seasonal workers to prepare for the job of protecting lives, property and the natural resource values of Alaska. The spring ritual carries through until the fire conditions change enough to no longer promote wildland fires.

For 2012, the Predictive Services branch listed the potential fire season outlook as “normal” across the state, with the exception of “above normal” activity for May and June in portions of the upper Yukon Valley and the western Kenai Peninsula. The predictions were based on drought indices from the previous season and the continuing problem of beetle-killed dead and downed spruce, with a thick grass understory, located primarily on the Kenai. The long term weather forecasts for Alaska have not yet proven accurate enough for pre-season fire preparations. This was demonstrated again as the bulk of the fire activity for 2012 was in the Interior and, later, a significant portion of the fire season resulted from several wind events which led to extreme fire conditions well into December.

April/May

The 2012 Alaska fire Season started with a warm and dry April, burning less than 12 acres with 20 fires by the end of the month. A cool May, with precipitation late in the month, slowed Alaska’s pace to 200 acres burned, whereas in 2011 nearly 140,000 acres had burned in May.

June

In 2011, 262,000 acres burned in June. June 2012 saw above normal precipitation, particularly in the Interior and the acres burned by the end of the month totaled 144,000, 118,000 acres less. The Alaska Lightning Detection System recorded daily lightning strikes with over 23,000 strikes for Alaska, roughly twice the total average. A lightning bust combined with low precipitation, generated numerous fire starts in northwestern Alaska. The Alaska Fire Service Galena Zone was the busiest during the first two weeks of June.

A nearly five-hour lightning bust starting in the early evening of June 23 generated numerous smoke reports result-



ing in 11 fires in the Interior. One fire near Healy, the Bear Creek #4, which eventually grew to be 8,522 acres, required the Alaska Type 1 Incident Management Team (Kurth) be assigned from June 25 until July 7 and transitioned to the Alaska Type 2 Team (Allen) for containment of the incident. Cool, humid weather assisted in the fire’s containment on July 5, and the fire was out on August 9. At Bear Creek #4’s peak there were 463 personnel assigned including two Type 1 crews, 15 Type 2 crews, five helicopters, and 147 miscellaneous overhead.

There was significant lightning occurring in Alaska during most of June but combined with associated precipitation there was limited fire activity. Fire resources began to take fire assignments in the Lower-48.

July

The rainfall for Alaska’s interior was below normal for July, but there was frequent light rain that came in repeated doses (20 days in July saw rain). The rainfall, paired with cooler than normal temperatures and little lightning activity, stifled wildfire potential. In 2011, by the end of July, over 290,000 acres had burned in Alaska. For comparison, by the end of July in 2012, a little over 207,000 acres were burned.

The first of three Division-contracted air tankers moved to the Lower-48 in late June. Eventually, the remaining two went in July to assist with extensive fire activity in the western states. The U.S. Forest Service continues to have air tanker shortages and has an interest in the Division’s air resources. Depending on fire season in Alaska, the Aviation section has been able to assist with this need.

The first group of five Type 2 crews went out on a National Interagency Coordination Center (NICC) charter jet on July 2, followed by a second group that departed Fort Wainwright on July 4. On July 14, two helicopter modules and one Agency Representative were dispatched to Canada

and worked the Wentzel Fire near High Level, Alberta. From July 15-31 a ten-person short team of operations and logistics personnel was assigned to the Northwest Territories. They were followed by White Mountain Type 2 Initial Attack crew on July 23 which stayed through August 3.

August

In the Interior, a mid-August reprieve of warm dry weather coincided with winds and caused various fires to become more active. The Dry Creek fire was highly visible from Fairbanks and the surrounding area and was started by lightning on June 23. The fire, located on the flats south of the Tanana River, grew from 360 acres in mid-July to 40,529 acres by the end of August as fire conditions steadily improved. Thick smoke floated into Fairbanks from the 18-22, causing air quality advisories to be issued on several days. Rainfall, starting on August 25, helped to minimize the smoke impact on the Fairbanks area. This fire would again reappear in October.

Mobilization to the Lower-48 continued with three more crew mobilizations in August. One group of Type 2 IA crews departed Fort Wainwright on August 7 and two groups of Type 2 crews went out on August 10 and again on the 13th. Some lightning activity continued in August as 74 strikes occurred on August 2. This was followed with 14 days of no activity, indicating a substantial decrease in fire starts, as there was a limited amount of initial attack required and growth on existing fires.

September

On the night of September 4, winds with peak gusts to 131 mph were reported in the Chugach Mountains east of Anchorage. The combination of the ground still being soft and wet from August rains and the leaves remaining on the trees caused downed trees and power outages as far away as Delta Junction and Tok area. Wind gusts in Delta Junction peaked at 76 mph causing three powerline fires and a fire in Tok.

Two weeks later, high winds impacted Tok once again. On September 16, local Tok and Tananacross residents estimated peak wind gusts of 100 mph throughout the night and resulted in significant blow down that impacted not only dead trees, but healthy living trees. Delta Area responded to ten powerline fires from September 16-19 and Tok Area responded to two. These winds also caused the Dry Creek Fire across the Tanana River near Fairbanks to flare back up and grow by 6,625 acres.

ACRES BURNED BY LANDOWNER

All Fires	Fires	Acres
BIA	4	122.0
BLM	39	51,620.2
BORO	12	4.1
Military	16	61,304.5
NPS	22	76,820.8
NCA	41	38,883.4
Private	148	303.2
State	99	17,772.0
USFWS	30	40,057.2
USFS	5	0.5
TOTALS	416	286,887.9



Governor Sean Parnell committed forestry personnel to chainsaw work and clearing debris in Municipality of Anchorage waterways to assist in the unprecedented Fall Wind Event in Southcentral Alaska.

L to R: Lori Wierstsema, Tom Greiling and Brian Carver, Mat-Su WFRTs clearing a waterway in Anchorage.

2012 ALASKA WILDFIRES BY AREA AND PROTECTION LEVEL**State Wide Totals by Protection Level**

Cause	Fires	Acres
Human	275	33,841.2
Lightning	141	253,046.7
TOTALS	416	286,887.9

CRITICAL		FULL		MODIFIED		LIMITED		TOTALS	
Fires	Acres	Fires	Acres	Fires	Acres	Fires	Acres	Fires	Acres
201	2,832.4	84	26,035.0	38	14,736.7	93	243,283.8	416	286,887.9

State Protected Areas

Area	CRITICAL		FULL		MODIFIED		LIMITED		TOTALS	
	Fires	Acres	Fires	Acres	Fires	Acres	Fires	Acres	Fires	Acres
Anch/Mat-Su	63	102.9	6	1.2	0	0	0	0.0	69	104.1
Copper River	15	2.1	4	3.3	1	0.1	1	22.0	21	27.5
Delta	30	31.7	8	135.1	1	65.0	1	3.5	40	235.3
Fairbanks	47	34.1	15	8,770.0	2	302.0	3	4.1	67	9,110.2
Haines	1	0.1	0	0.0	0	0.0	0	0.0	1	0.1
Kenai/Kodiak	26	15.5	2	1.1	0	0.0	2	0.2	30	16.8
Southwest	0	0.0	14	16,814.3	0	0.0	4	231.0	18	17,045.3
Tok	11	2.0	12	56.9	0	0.0	0	-	23	58.9
TOTALS	193	188.4	61	25,781.9	4	367.1	11	260.8	269	26,598.2

USDA Forest Service- Protected Areas

Area	CRITICAL		FULL		MODIFIED		LIMITED		TOTALS	
	Fires	Acres	Fires	Acres	Fires	Acres	Fires	Acres	Fires	Acres
Chugach N.F.	2	0.2	0	0.0	0	0.0	0	0.0	2	0.2
Tongass N.F.	3	0.6	5	0.5	1	0.1	2	0.2	11	1.4
TOTALS	5	0.8	5	0.5	1	0.1	2	0.2	13	1.6

BLM Alaska Fire Service -Protected Areas

Area	CRITICAL		FULL		MODIFIED		LIMITED		TOTALS	
	Fires	Acres	Fires	Acres	Fires	Acres	Fires	Acres	Fires	Acres
Galena	1	1.0	8	245.3	28	13,887.4	45	115,347.1	82	129,480.8
Military	0	0	5	1.6	0	0.0	10	61,301.4	15	61,303.0
Tanana	1	2642.1	2	4.5	3	466.1	14	45,865.2	20	48,977.9
Upper Yukon	1	0.1	3	1.2	2	16.0	11	20,509.1	17	20,526.4
TOTALS	3	2,643.2	18	252.6	33	14,369.5	80	243,022.8	134	260,288.1

10 Year Averages by Agency and Management Option, 2003-2012

	AFS		STATE		USFS	
	Fires	Acres	Fires	Acres	Fires	Acres
All Fires	7	13,995	213	2,327	10	3
Critical	34	84,707	62	65,395	17	1
Full	32	110,986	12	55,267	2	1
Modified	92	1,015,545	29	358,610	3	1
Limited	1	33,153	0	0	0	0
Unplanned	166	1,258,386	316	481,599	32	6
10 yr Av.						

TOTAL 10 YEAR AVERAGE**514 1,739,991**

2012 FIRE TRAINING PROGRAM

In-State Training (includes Area and Statewide Interagency Training)

Type of Course	Courses	DOF Instructors	DOF* Students	Local Gov Students	Fed** Students	EFF Students	Other Students	Hours
Incident Command System	13	16	60	29	64	14	16	322
Basic Firefighter	11	33	1	38	4	192	0	440
Gap Courses for Fire Depts.	4	4	0	16	44	0	0	80
Alaska Crew Boss Academy	0	0	0	0	0	0	0	0
Basic Academy	1	8	0	0	0	28	0	96
Advanced Firefighter Academy	1	8	1	0	0	33	0	210
Fire Management	4	3	20	0	35	23	0	144
Dispatch	4	3	10	0	0	5	0	88
Aviation	23	28	98	13	67	62	0	347
Suppression	38	58	214	49	174	106	11	844
Prevention	1	5	15	2	0	5	0	32
Fire Investigation	2	5	10	3	3	5	0	46
Leadership	4	6	33	4	20	8	0	96
Prescribed Fire	1	2	5	0	23	0	0	32
Fireline Safety	65	130	138	369	2	690	0	1329
Other: (Isuite, IQS, 1st Aid)	9	7	89	2	8	29	0	128
HazMats Warehouse	1	1	17	0	0	9	0	24
TOTALS	182	317	711	525	444	1209	27	4234

*#of DOF students includes: PPC, GGC, White Mountain crews, **additional federal students attended AFS sponsored courses

Basic Firefighter Training was offered in Tok, Haines, McGrath, Soldotna, Palmer (2), Delta, Fairbanks (3), and Glenallen for Fire Departments, EFF, Federal Cooperators, and DOF.

Lower 48 Training

Type of Course	Courses	DOF Students	EFF Students	Hours
Fire Management	4	4	0	160
Suppression	13	9	6	520
Prevention/Fire Investigation	1	1	0	40
Dispatch	2	2	2	80
Leadership	3	4	0	120
Aviation	5	8	2	200
Prescribed Fire	0	1	0	0
TOTALS	28	29	10	1120

Lower 48 courses included: Air Service Manager, Computer Technical Specialist, IA Dispatcher, Supervisory Dispatcher, Fire Management Leadership, Organizational Leadership, Multi Agency Coordination, Leadership in Action, Modular Airborne Firefighter System, National Aerial Firefighter Academy, Fire Prevention Program Planning, S232 Heavy Equipment Boss (SME-Instructor), Communications Technician, GIS, Facilities Unit Leader, Supply Unit Leader, Food Unit Leader, Time Unit Leader, Helibase Manager, Plans Section Chief, Air Operations Branch Director, Incident Business Advisor, Canadian Advanced Fire Behavior, Advanced Incident Management, Complex Incident Management.

Fire Department and Local Government Training

Type of Course	Courses	Students	
Area Level Training	87	471	Basic Firefighter, FLSR, Suppression, Aviation, Leadership, Gap
Statewide Training	17	85	ICS, Suppression, Prevention, Fire Investigation, IQS
TOTALS	104	556	

September saw the end of the Alaska's lightning season, with lightning occurring around Fairbanks on September 9.

In early-September, DOF firefighters provided assistance in Anchorage after a severe windstorm blew trees over and left many residents without power for days. Firefighters and equipment were dispatched by the Department of Natural Resources to assist crews from the Municipality of Anchorage with tree and debris removal.

September mobilizations to the Lower 48 saw five Type 2 crews depart on September 19 and five on 23, making a total of seven groups that were sent to the Lower-48. Meanwhile, the Alaska Type 1 Incident Management Team (IC Kurth) was assigned to the Trinity Ridge Fire in Idaho from September 2 - September 15. And in late September, a 10-person DOF Incident Management Team assisted the Mat-Su Borough and Department of Homeland Security with response to flooding and provided support in planning and damage assessment. On September 23 a late thunderstorm occurred followed by a cold front and brief snow fall.

October/November/December

The Division of Forestry had eight fires in October for 17.2 acres. These were caused by debris burning, campfires, or structures burning into the wildlands.

Dillingham, Alaska had an unexpected 16,566 acre fire starting on November 2. The Snake River Fire started in the afternoon when a small remote controlled plane crashed into the tundra three miles from the local airport. The fire quickly grew to four miles long and quarter of a mile wide and was initially reported to be 1,000 acres as a strong wind aided growth. The local volunteer fire department was assisted by a helicopter doing bucket drops to protect Native allotments. A short Type 3 team lead by Incident Commander Tom Dean was assigned on November 5. The fire was called out on November 9.

The last weather event of 2012 happened between November 29 and December 5. Seventeen human-caused fires occurred in the Mat-Su valley mainly due to a lack of snow pack, presence of strong winds, and low relative humidity. The fire causes varied from an overturned trailer, a burn barrel, a power line and structure fires that burned into the wildlands.

At the activity peak, the Cedar Hills Fire in Palmer required the evacuation of the Cedar Hills subdivision. Initial attack was provided by DOF, BLM Alaska Fire Service, Mat-Su Borough, Palmer Fire Department, Chugiak Fire Department, Anchorage Fire Department, Alaska State Troopers, Palmer and Wasilla Police Department. The indices recorded at the time would have been considered extreme fire conditions during the peak of fire season, with a Fine Fuel Moisture Content (FFMC) of 91.2, Initial Spread Index (ISI) of 15, and Fire Weather Index (FWI) of 35.9.

2012 WILDFIRES BY CAUSE

	ALL FIRES		AFS		STATE		USFS	
	Fires	Acres	Fires	Acres	Fires	Acres	Fires	Acres
Arson	0	-	0	0.0	0	0.0	0	0
Campfire	59	183.2	47	181.7	1	0.1	11	1.4
Children	11	4.0	11	4.0	0	0.0	0	0.0
Debris Burning	68	2,695.9	66	53.7	2	2642.2	0	0.0
Equipment	19	81.3	18	80.3	1	1.0	0	0.0
Fireworks	3	1.6	3	1.6	0	0.0	0	0.0
Incendiary	11	10,260.7	3	3.2	8	10,257.5	0	0.0
Land Clear	1	0.1	1	0.1	0	0.0	0	0.0
Lightning	143	253,047.8	34	9,574.4	109	243,473.4	0	0.0
Misc/Other	18	16,663.5	16	16,663.3	0	0.0	2	0.2
Powerline	40	15.0	38	13.7	2	1.3	0	0.0
Railroad	1	0.5	1	0.5	0	0.0	0	0.0
Smoking	2	0.2	2	0.2	0	0.0	0	0.0
Structure Fire	18	13.3	16	12.2	2	1.1	0	0.0
Trash Burn	1	0.5	1	0.5	0	0.0	0	0.0
Undetermined	21	3,920.3	12	8.8	9	3911.5	0	0.0
Vehicle	0	-	0	0.0	0	0.0	0	0.0
TOTALS	416	286,887.9	269	26,598.2	134	260,288.1	13	1.6

The 2012 Alaska fire season finished with 416 fires for 286,887.9 acres. In State protection areas there were 269 fires for 26,598.2 acres. A total of 192 fires with 188.4 acres burned were in Critical, 62 fires with 25,781.9 acres burned were in Full, 15 fires with 628 acres burned were in Modified and Limited combined. The acreage in State protection represented an unusually small amount based on historical averages.

Alaska Type 1 Team

The Alaska Type I Interagency Incident Management Team consists of 56 participants selected from a pool of over 300 applicants. Generally, there are six trainees and six mentees along with a selection of additional specialty positions to supplement the size and scope of the incident. For 2012, Tom Kurth, Chief of Fire and Aviation for the Division, continued as the Incident Commander for the team.

The first assignment, and earliest for the Type 1 team, was on Sunday, June 24th, to Colorado to assist in escalating conditions near Boulder. Instead, the team was diverted to an instate fire within the Fairbanks Area. The Bear Creek Fire #4 was the fourth in a series of lightning strikes in the

Anderson/Clear area located 40 miles to the southwest of Fairbanks Area. The fire threatened the June Creek subdivision, Bear Creek subdivision, Kobe Agriculture subdivision, Clear Sky subdivision, and eventually the Rex/Anderson Subdivision to the north. These subdivisions contained a total of 150 residential, seasonal, and recreational homes.

Early in the burn period on Sunday, June 24th, sustained winds of 30 mph began pushing the fire to the north beyond the capabilities of initial attack. The fire soon encroached on subdivisions prompting the Division of Forestry's Fairbanks Area to evaluate the possibility of the fire continuing into more of the identified values at risk. The fire was reaching spread rates of 1 to 3 miles an hour and was estimated to be 20,000 to 30,000 acres by the end of the burn period. Area personnel, upon visiting the fire area, decided that additional resources would be required. A Wildland Fire Decision Support System (WFDSS) Document was initiated and a complexity analysis indicated the need for a large Type 2 organization or larger. Since the Alaska Type 1 Team was on standby and activated to move to

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EFF worked 242,701 hours on fires.

EFF wages in 2012 were
\$5,867,139.13



Fairbanks #2 Type II crew on fire assignment.

Denver on a prepositioning order, it was determined to be the closest forces and best alternative.

The IMT1 was engaged in operations until July 1st, when the fire was transitioned to a Type 2 Team. No structures were lost, the fire peaked at 8,522 acres and 463 personnel. Final demobilization through the Type 2 Team occurred on July 6th.

A second Type 1 assignment occurred on September 1st for the Trinity Ridge Fire on the Boise National Forest outside of Idaho City in central Idaho. The IMT was to mobilize to an ongoing 146,000 acre fire. The incident had 978 personnel including 20 crews, 13 helicopters, and 46 engines. The primary objective was to consolidate two Type 1 operations that were in place while continuing to meet suppression goals and reduce the overall organizational size in cost containment measures.

The Trinity Ridge Fire encompassed a large geographic area over the Boise and Mountain Home Ranger Districts. Two Type 1 Teams were managing the fires. These teams were released and the Alaska Team completed overall suppression, rehabilitation, and monitoring oversight. After 12 days, the fire was transferred to a Type 3 team. The Type 1 Team was released from assignment on September 15th, after reducing the overall operation from a \$1.4 million/day to \$300,000/day.

Bear Creek Fires

On June 23, 2012, several lightning-caused fires started south of Anderson, Alaska, west of the Parks Highway. Because the area consists of flammable black spruce and is prone to fires becoming established and spreading quickly, the series of fires named “Bear Creek” had tremendous potential. Bear Creek #4 became the largest and eventually encompassed the other fires. The situation posed immediate concern to structures and transportation systems in the area.



Wildland Fire Academy basics students.

Fairbanks Area Forestry (FAF) quickly mobilized initial attack resources including helitack, smokejumpers, air attack, air tankers, engines, and crews. Firefighters from the Alaska Division of Forestry (DOF) and BLM Alaska Fire Service (AFS) worked on site-specific protection, while crews started to build fireline. Engines were used to provide structure protection for nearby subdivisions that were accessible by road. A Type 3 organization from FAF was put in place to manage the suppression response.

In the first few days, strong winds and high temperatures lead to rapid growth. Two prominent columns of smoke were visible from Fairbanks and a band of drift smoke wrapped itself in an arc to the south and west of town. Communities closer to the fire experienced the smoky conditions and visibility made it hard for fire personnel to map the fire. On June 24, the wind-driven fire was estimated to be 20,000 acres, but the number dropped by over half the next day when visibility improved and the fire was more accurately mapped.

At the time, the Alaska Type 1 Incident Management Team (IMT) was on a prepositioning order for fires in Colorado and was mobilizing to start travel; the order changed quickly.



Advanced group. Wildland Fire Academy 2012.

On June 25, the Type 1 IMT assumed control of Bear Creek #4 and additional small fires in close proximity. A total of 312 personnel were assigned when the IMT took over including DOF and AFS firefighters, Type 2 Initial Attack crews (Gannett Glacier, Tanana Chiefs, and USFS R10), and Emergency Firefighter (EFF) crews (Ambler, Arctic Village, Fairbanks #1, Marshall, Nikolai, and Stebbins #2).

The Incident Command Post was located in the Anderson School, near Clear Air Force Station (CAFS). The IMT worked closely with the emergency managers and CAFS provided showers, meals, three active duty airmen that were firefighters, a medic, an engine, and other support equipment.

The day after the IMT took command, significant precipitation reduced the fire behavior to creeping and smoldering. The sustained cooler, wetter weather pattern allowed the tactics to change from individual structure protection to direct fireline construction, extinguishing hotspots, and securing the perimeter. In addition to the those already listed, additional crews were brought on, including the Chena and Midnight Sun Hotshots and Mountain Village, Delta, Upper Tanana #1, and Lower Kalskag EFF crews.

The peak staffing level was on July 1 when 463 personnel were assigned. That was also the day that the command transferred to an Alaska Type 2 IMT. Under the Type 2 IMT oversight, personnel and equipment were demobilized and rehabilitation work began. After being contained and controlled, the fire was completely demobilized and put into monitor status on July 6. With the exception of a few interior smokes, the fire was quiet with little fire activity for the remainder of the season. It was administratively called out on August 9 at 8,522 acres.

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 structure fire departments, local government, other state agencies, emergency firefighters, other geographic areas, and Canadian fire agencies.

National Level Training (Lower 48)

Participation in Lower 48 training offered by other Geographic Areas, the National Advanced Fire and Resource Institute (NAFRI), and the National Fire Academy (NFA), helped the division meet the need for advanced level training to prepare our personnel to

Forestry employees and/or participants sponsored by the Division attended the following Lower-48 courses in 2012:

- Air Service Manager
- Computer Technical Specialist/Communications Technician
- Initial Attack Dispatcher
- Heavy Equipment Boss SME
- Supervisory Dispatcher
- Multi-Agency Coordination
- Fire Management Leadership
- GIS
- Organizational Leadership
- Facilities, Supply, Food Unit Leader
- Leadership in Action
- Advanced Incident Management
- Modular Airborne Firefighter System
- Time Unit Leader/Incident Business Advisor
- National Aerial Firefighter Academy
- Helibase Manager/Air Operations Branch Director
- Fire Prevention Program Planning
- Complex Incident Management (CIMC)
- Plans Section Chief
- Canadian Advanced Fire Behavior



TCC (Tanana Chiefs) crew on assignment.

serve on Alaska's Incident Management Teams, train future instructors, and provide Alaskans with professional career opportunities.

Instate Training

The majority of training in-state is provided through close cooperation of the Division of Forestry, the Alaska Fire Service, US Forest Service, Fire Departments, Local governments, and Forestry Area Offices. As reflected in the training statistics, meeting national requirements for certification in Incident Command System, Suppression, Aviation, Dispatch, Logistics, Leadership, Prevention and Wildland Fire Investigation positions was accomplished by conducting 2012 Alaska Interagency Training. This training is the backbone for developing qualified, experienced personnel to fight fires both in and out of Alaska. Training was provided to 2,916 students in 2012. Of these, 18% were Fire Departments/Local government; 24% were DOF; 15% were Federal; 42% were Emergency Firefighter, 1% Homeland Security, Alaska Railroad and Military students.

Several courses were offered to meet flex plan training requirements. These included Dispatch, Suppression, Leadership, Fire Investigation and Incident Command System courses.

The division assisted local government with using the Incident Qualification System (IQS) to track training and experience records and print red cards for positions covered in the operating agreements. The Mat-Su Borough and Anchorage Fire Department are using IQS.

Structural fire departments across the state assist the division in fire suppression in populated areas through cooperative agreements. These cooperators are a valuable source of trained, experienced firefighters. The division offers evening and weekend courses to meet the training needs of volunteer fire departments.

Forestry also supports native Corporation crews through agreements with the Tanana Chiefs Conference and Chugachmiut Corporation. Support to the crews consists of providing training, issuing red cards, tracking training and experience records, and assisting with mobilization.

The Basic and Advanced Wildland Firefighter Academies held in Tok, Alaska trained 61 students from throughout Alaska. The Advanced Wildland Firefighter Academy and Alaska Crew Boss Academy are held on alternate years.

The increase in online training offered additional ICS and Aviation courses to students. Incident Command System training to meet the National Response Framework was completed by many students. The Division provided a



Basic Wildland Fire Academy. Cindy Forrest-Elkins, second from right.

subject matter expert to the NWCG Development Office to help develop the new Heavy Equipment Boss class.

Wildland Firefighter Training Academies

The Alaska Wildland Firefighter Training Academies provide an intensive learning environment simulating conditions one would encounter on an actual fire assignment; long days, living in tents in all weather conditions, working together as a team (crew), and even getting up early for physical training. Besides the academic lessons and firefighting skills, an essential element of the academy was personal growth and taking responsibility. Opportunities for leadership and career development were woven throughout.

Cadets gathered from around the state in Tok, Alaska for the 2012 Academies. Tok Area Forestry hosted the camping site, meals were contracted with the Alaska Gateway School District and the University of Alaska/Interior-Aleutians Campus – Tok Center provided the classroom. Students came from Anchorage, Chevak, Circle, Delta, Emonak, Fairbanks, Galena, Glennallen, Holy Cross, Hooper Bay, Hughes, Lower Kalskag, Kongiganak, Manley Hot Springs, McGrath, Mentasta Lake, Minto, Newtok, Nikolai, Noatak, North Pole, Nulato, Pilot Station, Scammon Bay, Stoney River, Tok, Tuluksak, and Wasilla.

A different format was used this year for the academy. Instead of a single twenty-one day academy, we had a seven day Basic Academy, followed by a fourteen day Advanced Academy, with two separate sets of students. Also new this year: the University of Alaska Fairbanks Assistant Professor Tylan Martin (formerly a Fairbanks Area IA Tech) served as the lead instructor. Both academies were a resounding success. In the Basic Academy, 28 of 29 cadets completed the course earning certificates for I-100, I-200, L-180, S-130 and S-190; a "Red Card" for NWCG Firefighter Type 2; and three college credits. Nine outstanding Basic Cadets were invited to continue with the Advanced Academy. In the

Advanced Academy, all 34 cadets graduated, earning certificates for S-131, S-133, S-211, S-212, S-270, S-271, L-280, Wilderness First-Aid and CPR; qualified as "A" Fallers; and received eight college credits. These courses qualify the cadet to be issued Firefighter Type 1 and Helicopter Crewmember position task books by their home unit.

Advanced Academy graduation ceremonies featured congratulatory and inspirational addresses from DOF Chief of Fire and Aviation Tom Kurth, Vice Chancellor Bernice Joseph, UAF College of Rural and Community Development, and Fire Management Specialist Clinton Northway, Tanana Chiefs Conference. We would like to acknowledge Peter Butteri, FMO with US Fish and Wildlife Service, for purchasing replacement camping gear for the academy and much needed personal gear for some of the cadets; and Clinton Northway with Tanana Chiefs Conference for acquiring Academy themed tee-shirts and hoodies for the cadets. **At least twenty-three (23) 2012 academy graduates received employment in fire during the 2012 season; several on Alaskan Type 2 IA crews.**

Volunteer Fire Assistance Grants to Rural Communities

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 U. S. Forest Service and are administered by the Division of Forestry. In 2012, the VFA Grant Program provided \$454,868.70 to rural fire departments. The division received 38 requests for equipment, training and prevention activities and funded 35.

FEPP and FFP Activity

Sharri Smith left procurement for a Deputy position in the Mat-Su Borough procurement. She was one of the primary managers involved with the Federal Excess Personal Property (FEPP) and the Fire Fighter Property (FFP). The Division continued to surplus old and broken down FEPP equipment and probably returned over 30 pieces of equipment in 2012.

The Division acquired some Tri-Max Compressed Air Foam Systems (CAFS) compatible with the Division Helibase operations. The Division acquired 6 units and shipped them up from Ft. Lewis, Washington for about \$2,300. Each new CAFS unit costs close to \$10,000 and all of the surplus units saw little to no use.



2013 VFA Grant Program

Fire Dept.	\$ Awarded
Bear Creek	\$19,790.10
Bethel VFD	\$14,477.00
Butte VFD	\$20,000.00
Caswell Lakes VFD	\$8,511.92
Cooper Landing	\$10,000.00
Eflin Cove VFD	\$4,740.00
Ester VFD	\$15,830.00
Gakona VFD	\$15,353.12
Girdwood VFD	\$3,892.28
GlennRich Fire & Rescue	\$20,000.00
Gustavus VFD	\$8,713.00
Haines VFD	\$3,159.00
Hollis VFD	\$11,386.30
Houston VFD	\$18,511.92
Huslia	\$3,707.00
Kachemack Emergency Services	\$19,816.00
Kenny Lake	\$2,000.00
Kennicott/McCarthy VFD	\$20,000.00
Klehini Valley VFD	\$5,223.94
Nelchina/Mendeltna	\$18,000.00
Nenana VFD	\$4,852.00
Ninilchik VFD	\$19,955.00
Palmer Fire & Rescue	\$19,508.08
Petersburg VFD	\$6,420.00
Rural Deltana	\$19,800.00
Seward, City of	\$12,066.30
Sitka VFD	\$16,894.45
Skagway VFD	\$10,562.40
South Tongass VFD	\$10,734.70
Steese Area VFD	\$20,000.00
Strelina VFD	\$20,000.00
Sutton VFD	\$15,452.60
Tri Valley	\$4,860.00
Tok VFD	\$18,390.00
Willow VFD	\$11,873.51
Total	\$454,868.70

Wildland Fire Academy students learning fire investigation techniques.

The hope for 2013 is to get more of the surplus Division fire trucks into the hands of our cooperators and to have less reliance on the old FEPP equipment. Also, the fire departments should be able to tap into resources available through the FFP program, under which they can actually get title.

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 continues to implement the National Fire Plan by supporting a variety of educational and mitigation projects, such projects described below.

Initial Attack Fire Fighters

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

Chugach State Park- Nancy Lake Hazards Fuels Reduction

In 2012 the Division of Forestry completed the hazard fuel reduction work along the Nancy Lake Parkway and South Rolly Campground. The Pioneer Peak Hot shot crew, Gannet Glacier Type II initial attack crew, student interns and Division of Forestry technicians cut, thinned, limbed and piled hazard fuels on 57 acres of public land. Useable fire wood size material was made available for salvage and utilization by the Park. All slash were piles were burned or chipped

Eastern Copper River (McCarthy) Hazardous Fuels Mitigation

A land owner- cost share program for thinning hazard fuels was implemented. Forty two homeowners received Firewise home assessments and two land owners were able to complete their projects by the fall of 2012. Through a community process six roads were prioritized for thinning treatments to create shaded fuel breaks that reduce fire risk. A total of two miles of roads and seven acres were treated. Firewise education and outreach took place on a wide scale and one on one level. The local Volunteer Fire Depart-

ment was educated on Firewise principles to better assist in spreading the Firewise message. Work will continue to take place in 2013.

Glennallen Hazardous Fuels Reduction

Outreach and advertisement for the land-owner cost share hazard fuel program was initiated and forty six homes received Firewise assessments with one land owner completing their project. Permits were obtained for shaded fuel break work. A 50 foot shaded fuel break was cut along Snowshoe Street along the East/West easement line above Terrace Drive for approximately five acres. Forestry coordinated with Ahtna Inc to design and implement a woody debris disposal site for landowners utilizing the cost share program. Forestry is working with local volunteer fire department and home owner associations to develop a plan to advertise both the cost share program and Firewise principles in Glennallen and surrounding areas. Work will continue in the spring of 2013.

McGrath City Fuel Breaks

In 2012 a Cooperative Agreement between MTNT Native Corporation and Alaska Department of Natural Resources, Division of Forestry was signed to mutually carry out fire prevention, fuels mitigation and pre-fire planning in cooperation with the City of McGrath. Key program areas include fuels reduction, restoration of fire adapted ecosystems, home owner action and prevention and education within and surrounding the City of McGrath. This collaborative effort provided by MTNT and the Division of Forestry will jointly fund a Wildland Fuels Mitigation Specialist to prioritize areas for treatment and recommend areas to reduce structure ignitability. This Mitigation Specialist will be in place to begin work spring of 2013.

Western Fairbanks Hazardous Fuels Reduction

Shear blading began in February of 2012 and was completed by mid March. Two units (#3 and 4), totaling 254 acres, were shear bladed in the Goldstream Valley. This area is characterized by continuous stands of Black Spruce. Treatment units were placed on state land adjacent to subdivisions that are outside of any municipal fire service areas. The Fairbanks Northstar Borough Community Wildfire Protection Plan (Phase II, 2009) identified these subdivisions as being at high risk of wildfire.

Work continued on the fuel break located on state land adjacent to the McCloud Subdivision. The McCloud subdivision is outside of any municipal fire service areas. The Fairbanks Northstar Borough Community Wildfire Protection Plan (Phase II, 2009) identified this subdivision as being at high risk of wildfire.

Forestry personnel used chainsaws to widen an area (approximately 5 acres) adjacent to homes. It was characterized by steep slope and continuous Black Spruce. Slash piles created during the Hastings Fire (2011) were cleaned up in order to facilitate pile burning operations. Forestry personnel began burning slash piles in October. Twenty acres (approximately 1500 piles) of Black Spruce slash was burned.

Fairbanks Slash Burning

In July of 2012, Forestry personnel and equipment began field work in the Harding Lake fuels treatments. Administrative duties, including obtaining smoke permit, preparing a burn plan, and preparing progress reports for the land managers were completed. Unit boundaries and access routes were further cleared of vegetation using the agencies' bulldozer/operator (funded by the local Area operating budget). These improvements were made in order to facilitate safe slash burning operations and reduce the potential of escaped fire.

Slash burning began in October following an active fall fire season and a rain event that increased fuel moistures and decreased the risk of escaped fire. Twenty acres of wind-rowed Black Spruce was burned on state and borough owned land. Ten acres of hand piles (~500 piles) were burned on University of Alaska land.

Kenai Firewise Education and Assessments for Community Wildfire Protection Plans (CWPP) & Kenai Fall Firewise

These two projects came to completion in 2012. The Firewise Education and Assessments for CWPPs program conducted 201 individual home assessments. An estimated 60,000 residents were contacted through meetings, presentations, fairs, parades, video distribution, radio coverage, monthly info-torials in Peninsula newspapers, program advertisements, cooperating fire departments and other agencies. The Kenai Fall Firewise program encourages fuel reduction in the fall instead of the spring. The education project begins annually with media announcements in July to inform residents of Firewise techniques and the debris/slash pickup program that ran in August and September each year. Fourteen private contractors and businesses volunteered a portion of the equipment and

The Kenai Fall Firewise program encourages fuel reduction in the fall instead of the spring.

The education project began annually with media announcements in July to inform residents of Firewise techniques and the debris/slash pickup program that ran in August and September each year.



White Mountain Type II crew with detailed technicians on assignment. Photo: Frank Gilbert.

operator time for brush pick up and slash disposal. Much of the slash was utilized for fill sites. Local residents cut and thinned their properties. The nationally recognized Cohoe Firewise Community managed the gate on a slash site contributed by Alaska Department of Transportation.

DOT also helped repile the accumulated material in the fall. Another local landowner donated a fill site for disposal of stumps so that the Cohoe slash site wouldn't fill up with bulky, hard to burn stump material. The local KPB Solid Waste Department provided fee waivers at the landfill for disposal of slash from the FireWise program at both the Soldotna and Homer facilities. Besides a cash match to the Firewise Slash Pickup Program, the Spruce Bark Beetle Mitigation Program's contribution included payment for a disposal site on Funny River Road where many residents are active in the FireWise program because of recent fires in the area. **An estimated twenty six communities were assisted with hazard fuels mitigation through this program.**

Fire! In Alaska Workshops

During these workshops educators learn and practice key concepts of fire ecology, fire behavior, risk factors and participate in two home assessments. The Fire in Alaska workshops blend US Fish and Wildlife Service curricula (Role of Fire) with US Forest Service curriculum (Firewise) with Division of Forestry adaptations. The workshops are sponsored by the Division of Forestry; but hosted by individual school districts at central locations where educators gather. Each teacher then returns to his or her home site and teaches the curriculum to their students. Five workshops were held in 2012 in the communities of Soldotna, Fairbanks, Fort Yukon, Palmer, and Eagle River. A total of thirty-nine educators attended the workshops. **Nearly 1000 educators have completed the course in Alaska and demand continues to remain high.**

New Projects Awarded National Fire Plan Funding in CY 2012: \$1,271,865

Mat-Su Hazard Fuel Mitigation- Butte Recreational Trails & West Lakes: \$300,000

Work includes creation of 110 acres of shaded fuels breaks on 2 sites and the installation of Firewise Educational kiosks. Butte Recreation Trails: 50 acres of shaded fuels breaks will be constructed along over 12 miles of multi-use recreation trails that run through both MatSu Borough and State of Alaska managed lands. The project will provide a 200 foot shaded fuels break separating private lands and the public use area. Treatment specifications include cut, pile & burn all standing dead & down spruce and limb up all live trees to 8ft. A shaded fuel break is the best model to inhibit growth of calamagrostis. All fuels breaks will be completed by hand crews to maintain aesthetic value as well as provide

a practical fuels break. West Lakes Public Lands: 60 acres of shaded fuels breaks that will be constructed on both State & MatSu Borough managed land within and around the community of West Lakes. The tracts of public lands are adjacent to private lands. Fuel types in this area are conducive to wildland fires. Hand-felled trees create shaded fuel breaks that will separate at-risk residences from large tracts of the forested lands that are commonly used for recreation and prone to human caused fire starts. Usable firewood will be offered free to the public at both project sites. Each project site will have 3 Firewise educational kiosks installed using volunteer labor from the Boy Scouts of America.

Fairbanks North Star Borough Fuels Reduction Phase III: \$300,000

The Fairbanks North Star Hazardous Fuels Reduction Project Phase III will reduce hazardous fuels on 80+ acres and provide prevention education to approximately 5,000 residents living in the Wildland Urban Interface. The Community Wildfire Protection Plan Phase 1 (exposure model) and Phase II (action tasks) have been successfully completed in the Fairbanks North Star Borough. Phase III will treat 80+ acres within these subdivisions: Gilmore (20 acres), Goldstream (20 acres) & Nordale (40+ acres). Work includes: Conducting at least 3 public information meetings about the project. Public meetings will include presentations at road service committee meetings and distribution of Firewise materials. Construction of shaded fuel breaks adjacent to private property, homes, and infrastructure and includes thinning, brush clearing, pruning, and pile burning. The objective is to break up hazard fuels in such a way to lessen a crown fire and its threat to public, firefighter safety and property damage. Cut trees will be stacked and made available free to the public for firewood.

The fuel reduction project, effective for 30-40 years in the boreal forest, will serve as a visual reminders continually reinforcing and educating landowners living in the WUI. The project promotes safety messages and reinforces Firewise principles in subdivisions in project areas reaching 5,000 residents. Educational materials such as Firewise Landscaping, "Firewise in Alaska" booklets, and Fire Prevention/Safety brochures will be distributed at public meetings & community events (fairs, parades, picnics etc). Seasonal PSAs and local media will help carry the message forward.

West Kenai Hazard Fuels Mitigation: \$200,000

Hazardous fuels will be removed from at least 200 acres of high or extreme risk parcels determined by local Community Wildfire Protection Plans. Fuels in the project area are predominantly spruce and mixed hardwoods. The majority of the spruce is dead standing large diameter timber.

Forest thinning, removal of dying & standing dead spruce & pruning ladder fuels will mitigate crown spread when grass fuels are ignited. All fuel removal will be completed by hand including hauling slash from the site, chipping or burning in place if suitable conditions exist. Hand treatments are the preferred method of treatment; mechanical equipment would be limited by slope stability, access, and the proximity to surface waters. Work will take place in 2013 and 2014 from August through October. 100 acres will be completed each fall. It is estimated that 150 cords of firewood will be produced each year. When practical, firewood will be made free & available for public use. The resulting forest will have a target crown spacing of 10 feet. The majority of the birch trees in the general area are in poor condition. In an effort to enhance birch reproduction & encourage transition to a hardwood dominated stand, deteriorating birch will be removed to promote stump sprouting regeneration.

Two interpretive signs will be developed and located within the project area to educate the public in Firewise principles and the project objective of hazard fuel removal to reduce fire risk. Other forms of education will include the distribution of Firewise pamphlets in the community and face to face public encounters on location. Additionally, educational information regarding Firewise concepts and project objectives will be posted at the City of Kenai, Kenai Fire Department, and Division of Forestry Soldotna Office.

Statewide Prevention, Safe Burning & Firewise Principles Outreach: \$171,865

The project will create statewide Public Service Announcements (PSAs) including TV and radio, a comprehensive Alaska Firewise web page and overarching social media campaign. Work includes Planning/assessment of existing outreach - DOF personnel will work with cooperators to catalog existing PSAs and identify gaps in messaging and evaluate how/where AK Firewise principles and information are shared online to then storyboard an indepth, interagency appropriate page.

Statewide information and education targeting prevention, safe burning, and Firewise will be accomplished through a dual approach; a minimum of 3 PSAs for TV and the DOF Youtube Channel), a minimum of 5 radio and print and a DOF-hosted interagency Fire-

The Fairbanks North Star Hazardous Fuels Reduction Project Phase III will reduce hazardous fuels on 80+ acres and provide prevention education to approximately 5,000 residents living in the Wildland Urban Interface.

The fuel reduction project, effective for 30-40 years in the boreal forest, will serve as a visual reminder; continually reinforcing and educating landowners living in the WUI. Project promotes safety message and reinforces Firewise principles in subdivisions in project area reaching 5,000 residents.



Helitack manager bringing in a copter ready for a medical evacuation on a fire.

wise webpage containing in-depth information about the existing Firewise Alaska campaign and ties to local Firewise campaigns, such as the Firewise for All Seasons, and presents a “one-stop-shop” for Alaska Firewise information.

PSA message delivery will be through paid prime time air time for both TV and radio PSAs, securing space for display/print ads and inserts in publications (online/print and using DOF social media sites to post PSAs). News releases, inclusion of link on various graphics/products, & social media will direct people to the Firewise webpage. Scope of work directly ties to a State Assessment & Resource Strategy goal of using modern technology to expand outreach.

Mentasta Village Defensible Space/Safe Passage Phase I: \$300,000

The Community Wildfire Protection Plan (CWPP) identifies priorities and encourages Firewise practices for residents/landowners and visitors. The project treats 100 acres & includes a 300' wide hazardous fuel break on all sides of the community with an additional large clearing of 500' near the ball field to serve as a safety zone and helispot/staging area. Permits and authorizations will be obtained prior to project work from land owners pertaining to requirements and restrictions of land use.

In Zone 1 (0-25 feet starting from the edge of the road), all trees will be removed by hand felling and/or by a Feller Buncher. This will remove in many cases all trees between the road and power lines. In Zone 2 (25 up to 100 feet), deciduous trees will be spaced, most volatile spruce trees will be removed leaving a few scattered healthy spruce trees with minimum tree crown spacing of 20'x20'. Ladder fuels up to 5' will be removed on all remaining spruce trees in the zone. Trees will be directional felled and bunched, which is productive and cost effective. Bunched trees will be skidded with a Log Grapple Skidder, loaded with Grapple Trailer, and decked and/or hauled to Mentasta Village. The Division of Forestry will manage and supervise the project. A contract hand crew will perform all the labor.

The slash and ground fuels will be removed and taken to the village, using a combination of quality directional hand felling and bunching, and mechanized equipment for skidding and loading will ensure a safe, efficient, high productivity operation with low cost and minimal disturbance. This project will have complete utilization of the material for biomass to heat a public school. This project has high public acceptance and will serve as a teachable example for this community and others.

Aviation Program

2012 was a busy year for the aviation staff. Training was a high priority with the training of Dennis Blankenbaker, and Randy Weber in the Air Attack/Logistical and Lead Pilot position. Chief Pilot, Doug Burts did a great, safe and very professional job! Candy Simmons continues to be the glue that holds our administrative requirements together. Steve Edwards and Wes Walker, as always, do the best of maintenance, thanks for the excellent and professional job!

The Division continued the ASM/Lead Plane program to include the continued training of 2 Lead plane pilots. This was accomplished with one Pilatus PC-7 and one leased Turbine Commander 690 aircraft. A Federal Excess Property Program DHC-2 Beaver, and the leased Commander 500S, provided logistical support and ATGS training. These aircraft totaled 350 flight hours. We successfully sold both PC-7 aircraft and are filling our RFP with two Turbine Commanders.

This fire season was the fifth year of a five year contract for 2 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. With a tremendous amount of help from the Interagency Air Tanker Board, Conair and the Department of Interior, Aviation Management Directorate, the Convair 580 was given full approval by the Air Tanker Board. This allowed our State contracted airtankers to be used on federally protected lands. These airtankers flew 127 flight hours and dropped over 492,000 gallons of retardant in Alaska.

The Division released these airtankers in mid July, and as part of our contract, both airtankers and additional Convair 580 was ordered by the US Forest Service for duty in the lower 48. Through contract extensions, they remained on duty until the middle of October.

Evergreen Helicopters provided three long term contracted type 2 helicopters, located in Palmer, Fairbanks and Delta. Rogers Helicopters provided a type 2 helicopter in Tok, ERA helicopters in Kenai, and Temsco helicopters in McGrath. These rotorcraft provided platforms for both IA Helitack, and logistical support. Total flight hours were 619 hours.

The Northwest Compact was put into use with great effect, a British Columbia “RAP Attack” helicopter were used to help support the Tok area. Again this year both Commanders, the 690 and 500 Shrike were ordered by the US Forest Service for Lead Plane/ASM duty in Montana, Wyoming, Idaho, South Dakota and Colorado till mid October and Air Attack duty in South Dakota, Idaho, Montana and Wyoming for 45 days, respectively.

Safety Officer

This year we continued to build upon the Division of Forestry safety culture. As in the past, Area Offices were visited and many different safety classes were delivered. This included the annual OSHASAFE, Powered Industrial Truck, All Terrain Vehicle, and Defensive Driving modules. Twenty-two classes were conducted and a total of 354 personnel attended these training opportunities. Additionally, the DOF Safety Officer assisted with the Alaska Fire Medic Orientation and delivery of: S-230/231, Crew/Engine Boss; & S-260, Interagency Business Management classes.

This was the third year for the DOF Emergency Vehicle Operator driving history review program. Over one hundred driving records were examined; three of the applicants were denied driving privileges until they renewed their expired/revoked license. Additionally, twelve warnings were issued advising of impending expiration/points accumulation.

Another noteworthy activity – the DOF Safety Officer was invited to make a presentation at the International Association of Wildland Fire Safety Summit in Sydney, Australia. This summit brought wildland fire safety professionals from Australia, Canada, China, France, New Zealand, Nigeria, Thailand, and the United States. This description of how the wildland fire agencies of the United States have progressed from conducting a standard accident investigation to examining all potential causal factors, publishing a facilitative learning analysis was well received by the audience. Learning ways to interrupt a chain of events leading up to an accident, without assessing blame, was a new concept to many of this in attendance and the presenter received accolades for the delivery.

Safety is a team effort and working together to recognize our coworkers when they go above and beyond, especially when safety is involved, is another way to promote our esprit de corp. The DOF Safety Challenge Coin is a way to recognize our colleagues. During the Fall Fire Review in Fairbanks, a Silver DOF Challenge Coin was presented to Martin Maricle for his work developing and implementing the On Line Application System (OLAS). As a result of his work DOF is better able to attract more vendors with better equipment, track inspections and contractor performance evaluations.

This year we continued to build upon the Division of Forestry safety culture. As in the past, Area Offices were visited and many different safety classes were delivered.

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Fairbanks Area

Top row L/R: Tasha Shields, Colin MacDonald and Bob Zimmerman in the helicopter.

Second row standing L/R: Avi Shalom, Josh Turnbow, Kevin Meany, Kevin King, Brandon Simmons, Christian Blankenship, Trevor Fulton, Tom Lesatz, Nils Bergan (pilot), Arturo Frizzera, Tim Soliday, Kelsa Shilanski, Mike Goyette, Karis Berrian, Cynthia Beatus and Brian Young.

Third row kneeling L/R: Kaleb Maniaci, Zane Brown, Gordon Amundson, Kathryn Pyne, Eugene Lee, and Cameron Winfrey.

Photo: Ed Sanford.



Another special acknowledgement, in the form of a laser engraved birch plaque, went to Kenai Kodiak Area Technicians. During the last two years, these dedicated employees have worked on the removal of hazardous beetle kill trees within the Kenai Peninsula Borough. Working in all kinds of weather and conditions, these professionals have worked more than 5600 hours with ZERO injuries.

Each of these people exemplify what doing it right is all about: **“Making it Safe – Every Task – Every Time”**.

Contemporary Communications for Crisis Response

Social media provides non-traditional ways for the Division of Forestry (DOF) to share information and visuals and engage with an online community of public and media.

The DOF Twitter, Facebook, and YouTube pages contain various highlights about programs, events, and activities, and direct people to website content. In emergency/wildland fire situations, the Twitter and Facebook pages point the public and media to websites where time-sensitive information is updated, provide the time frames for when new information will be released, and establish connections to the Public Information Officers (PIO) in the field.

The Alaska Virtual Operations Support Team (AK VOST) “Virtual Operations Support Teams (VOST) as applied to emergency management and disaster recovery is an effort to make use of new communication technologies and social media tools so that a team of trusted agents can lend support via the internet to those on-site who may otherwise be overwhelmed by the volume of data generated during a disaster. VOS Teams (VOST) are activated to perform specific functions in support of affected organizations & jurisdictions. Each VOST has a Team Leader that reports directly to the affected organization/jurisdiction.” ~ <http://vosg.us/history/>

This summer, the DOF Information Office partnered with the Alaska Type 1 Incident Management Team (IMT) to establish the Alaska “Virtual Operations Support Team (VOST).” The VOST concept was created by the emergency management community and is being developed on a local, national, and international scale. The wildland fire VOST concept has no public presence; it is a background support mechanism. The VOST works under the direction of the PIOs to post the information that is generated by the incident management organization online. A primary VOST role is to “listen” by monitoring what is being said online about the incident by the public and media; what is “heard” may then warrant being shared with and addressed by the PIOs.



Fueling a chainsaw. Proper maintenance and safety is a priority.

Alaska’s Type 1 IMT VOST was activated for the first time in Alaska on the Bear Creek #4 Fire at the end of June. Weather conditions moderated the fire behavior and the slower pace provided opportunity for the PIOs and VOST members to streamline their process for interaction. The incident also gave the PIOs the time to introduce the concept to other members of the IMT. The AK Type 1 IMT VOST was activated once again in early September when the IMT was assigned to the Trinity Ridge Fire in Idaho.

In acknowledgement of the ever-changing and emergent ways that information can be shared, DOF will continue to explore social media opportunities for communication.

Social media does not eliminate traditional means of information sharing, but expands the opportunity to get a message out and further diversifies and the audience that may receive it.

State Logistics Center

The State Logistics Center (SLC) was fully staffed throughout the 2012 fire season for the first time in three years. The Alaskan fire season was rather benign but the SLC was kept busy during the support of the Bear Creek 4 fire. SLC was extremely busy in support of Lower 48 mobilizations. SLC helped coordinate crew movement with the Alaska Inter-agency Coordination Center (AICC). SLC was involved in helping mobilize numerous agency personnel and

Emergency Fire Fighters from July into October. Since it was a relatively slow Alaskan fire season SLC did not have to expand to an off-site location.

The Ground Support Manager positions were kept busy in support of the Bear Creek 4 fire. The Northern Transportation Unit operated out of the Randy Smith Middle School and this turned out to be a cost effective location that provided expandability, better access, and greater efficiencies.

There were relatively low numbers of Lower 48 overhead brought into the state and consequently the Division of Forestry did not need to establish a mobilization center at the University.

Warehouse

In 2012, which was well below average, the State Fire Warehouse issued \$2.2 Million in supplies and equipment to in-state incidents. More than half of that, \$1.2 Million, was to the Bear Creek complex of fires.

In addition to State fires the warehouse system also supported the Lower 48 Cache system with just over \$1,000,000 in supplies and supported the September Severe storm response out of Palmer. We supported the Canadian fire fighting effort with 2 personnel. All but one of our 19 warehouse and shop employees went on outside assignments for a total of 68 person weeks.



Social media provides non-traditional ways for the Division of Forestry (DOF) to share information and visuals and engage with an on-line community of public and media.

DOF Pages

Facebook:

<http://www.facebook.com/AK.Forestry>

Twitter:

http://twitter.com/ak_forestry

Youtube:

<http://www.youtube.com/alaskadnrdo>

Additional VOST Information:

<http://vosg.us/>

For more information, contact
maggie.rogers@alaska.gov,
(907)-356-5511

Fire Prevention Workshop: Alan Martin, statewide fire training; Paul Pellegrini, Kenai-Kodiak Area; Greg Arkle, EFF; Bryan Collison, Matsu Area; Doug Albrecht, Mat-Su statewide prevention; Gary Hopkins, EFF Fairbanks Area; Lori Wiertsema, Matsu Prevention; Sharon Kilbourne, Kenai-Kodiak; Mike Trimmer, Copper River; Bruce Swaim, (retired) Delta; John Graft, USFW Tok.

Photo Maggie Rogers.

Northwest Compact Meeting at Alyeska L to R: Robert Schmoll, Albert Kassel, Washington DNR, Darla Theisen, DOF, State Logistics Coordinator AICC, Jim Newton, Idaho DNR, Doug Grafe, Oregon DNR, John Monzie, Montana DNR, John Brewer, Alberta; Mike Sparks, Yukon Territories, Leo Gillich, British Columbia; missing from photo is Steve Roberts, Saskatchewan and Frank Lepine, NW Territories.

EMPLOYEE RECOGNITION



Norm McDonald - 15 Years

Norm started his career in wildland fire with the Division of Forestry as a crew member on the Alaska Intern crew in 1989. Early that season the crew was deployed to the Goober Mountain Fire in Glennallen. After his first fire, Norm was hooked. Norm spent the next six seasons working on the intern crew as a crew member, squad boss, and eventually as the crew foreman. During that time he was also the crew boss for the Mat-Su Crew and worked on engines and helitack as an EFF.

In 1995 Norm was hired as a Tech II out of what was then the Big Lake office. Norm spent the eight seasons working on helitack and engines. In 2002, Norm was hired at the Helitack Forman Tech IV for the Mat-Su Area. During the Millers reach trial Norm was assigned to the States defense team as a State Representative and witness. Norm spent two months in the courtroom during the trial. In 2006 Norm accepted what was supposed to be a short term acting position as the Mat-Su Area's FMO. Four years later, he assumed full responsibility as the Area's FMO.

As the Mat-Su Area FMO Norm has worked on developing two permanent State Fire Crews, both Gannett Glacier and Pioneer Peak. Norm has been a member of the Engine Committee, the Alaska Crew Committee, and the Mat-Su Fire Chiefs Association.

When not at work, Norm is an active member (retired) of the Mat-Su Maulers Rugby Club and enjoys skiing with his daughter, fishing, hunting and hiking with his friends and family.



Steve Elwell - 15 Years

Steve started with State employment in 1997 as the Aviation Supervisor for the Department of Public Safety. He oversaw the State Troopers fleet of 46 aircraft and 50 pilots for six and a half years. In the Winter of 2004, then Chief of Fire and Aviation, Joe Stam, recruited Steve to fill the same position within the Division of Forestry. Steve came to Forestry in February 2004 and during the next 9 months experienced the busiest Fire Season on record, truly a "trial by fire."

Steve has overseen the 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 and ownership of the Division's newest Lead Plane aircraft, two turbine powered Twin Commanders. Steve continues to promote and maintain the Aviation staff's continued outstanding safety record of zero accidents or incidents.

Steve is also involved both Nationally and Internationally with Wildland Fire Aviation Associations. He is the Association of State Foresters State representative to the Interagency Air tanker Board and was recently nominated to the Helicopter Association International (HAI) Government Services Committee, and on the Fire Pilot accreditation working group. Steve is also the State of Alaska, Fire and Aviation representative to the Canadian Air Tanker Safety Board.

Steve is also a rated 20,000 hour Airline Transport Pilot in both fixed-wing and rotor-wing aircraft, Certified multi-engine, Instrument Flight Instructor in both fixed-wing and rotor-wing, and has a Airframe & Power Plant mechanics rating with Inspection Authorization.



Blair Acheson - 15 Years

After graduating from High School in 1968, Blair worked two years for the California Division of Forestry (CDF) in Beaumont, CA and one year as a fireman in San Diego County. After being drafted into the Army, he served on the Fire Department at Ft. Wainwright. After his discharge, Blair worked for the CDF for another year and then spent two years working at a factory in Maryland.

From Maryland he made his way back to Alaska, where he lived a subsistence life-style for several years and also attended UAF intermittently. In the early to mid 80s he worked as an EFF in Fairbanks as well as pounding nails and continuing his education. After numerous degree changes and a total of 250 credits, he received a B.S. in Natural Resources Management on the Agriculture option in 1986. In 1989 he was hired as a Tech III at the State Nursery where he worked until its demise in 1991. He transferred to VCRA as a Dispatcher and later switched over to Engine Boss where he continues today. Between fighting fires, you'll often find Blair tending to the tree seedlings he grows at the station.

Diane Campbell – 15 years

Diane started her state service with Alaska Department of Fish and Game in Dillingham Alaska as a technician. The majority of her early years were spent with Comm Fish collecting test fishing and escapement data for herring and salmon stocks. During the comm fish “off-season” Diane could be found assisting with wildlife and sportfish projects throughout the state. She remembers well when computers first made their appearance for data analysis and mapping in the biology field. In the early 1990's Diane transferred to a position with Comm Fish in the Soldotna office where she remained until leaving State service for family reasons. In 2008 Diane returned to State service accepting a position with the Division of Forestry as a Wildland Fire Dispatcher at the Kenai/Kodiak area office. She has completed multiple fire assignments in Alaska and Oregon over the past five years and is looking forward to whatever challenges the future will bring.

EMPLOYEE RECOGNITION



Kathryn “KT” Pyne – 15 Years of Service

KT took a rather circuitous route through her career to her current position as the Fairbanks Area Forester. Her career in natural resources began with the BLM where she worked as a Land Law Examiner and completed a three year commitment under the Fire Familiarization Program. In the course of completing her responsibilities under that program KT attended dispatch training and she soon thereafter accepted a dispatch assignment to Fairbanks Area working for Sue Clark. Following that assignment she transferred in BLM to a seasonal position at Alaska Fire Service working an IA desk at AICC. In her spare time KT completed her BS in Biology and continued with her Masters Degree. All this on top of her Veterinary Technician Associate's Degree.

After completing her Masters Degree in Natural Resource Management at UAF in 1996 KT accepted a full time seasonal dispatch position at Delta Forestry. Shortly thereafter she transferred to Southwest Area where she worked for three seasons. Fairbanks Area FMO Tom Kurth hired KT as the Lead Dispatch for Fairbanks Area and from there she continued to ascend the ladder, serving as the Stewardship Forester in the interior, the statewide Communications Forester, and now as the Fairbanks Area Forester since August of 2011. In her brief tenure as the Area Forester she has provided solid leadership and has built a strong team that spans the functional areas of responsibility in the office. KT continues to avail herself to opportunities to both professional and personal growth and will graduate from Leadership Fairbanks in May with the class of 2013. It is widely recognized that KT's potential is limited only by her opportunity.



Arturo Frizzera – 15 Years of Service

In the 70's Arturo came to Alaska from New York to climb Moose' Tooth. However due to weather, he never climbed the Mountain. He met his wife who was attending the UAF Theater Department.

Early in his career, Arturo was in show business. He graduated from New York's School of Motion Picture Production. With show business, he traveled the world from filming in Vietnam during the war, to touring with Miriam Makeba performing in Europe and Africa. Arturo also worked for Van Morrison, and Judy Collins. He was an assistant producer for the first Woodstock.

In 1972 Arturo enrolled at the University of Fairbanks in Theater, and later changed his major to Anthropology. For three years Arturo worked as a student anthropology intern with the National Park Service on the 14HL ANILCA projects. Another project was an Archeological research for the Haul Road, where researchers literally walked from the Yukon River Crossing to Cold foot.

Arturo was hired on as Emergency Fire Fighter (EFF) for Fairbanks Area. Arturo worked for Upper Yukon Zone at the Central, Alaska office. He was later promoted to the detection specialist position for Upper Yukon and Tanana Zone. After working with AFS, Arturo worked with Division of Forestry as the Resource Technician II. Arturo is now the Fairbanks Area Dispatch coordinator

When Arturo is not working, he loves teaching fencing. He has worked with US Olympic Coach Sebastian DosSantos and fellow Alaskan Wayne Johnson.

In addition, the Frizzerras' have taken to growing Peonies. This is the plantation's third growing season. Next year, the plants should be producing flowers for sale.



Douglas Albrecht - 20 Years

Douglas followed in his father's footsteps by leaving Nebraska at an early age to explore The Great Land. After two years of wrestling at the University of Nebraska while working towards a degree in natural resources, Douglas left the Midwest for the rugged mountains of Alaska.

Douglas worked as a logger in Talkeetna for a few years prior to completing Forestry school at AVTEC in 1990. Douglas began his career with the DOF as an intern in Soldotna in 1991. The following year Lon Greenough of Big Lake hired him as a Forest Technician 2. In addition to his education, Douglas spent the previous 6 years (1986-1992) protecting his country in the USAF ANG in Fire Crash Rescue.

Big Lake Forestry moved to TRC (Trunk Road Center), and then to the Palmer airport in 2000. Douglas has been involved with the Palmer helibase, then focused his efforts in Helitack Operations.

In 2004 Douglas transferred out of Operations to Mat-Su Prevention. In 2006 Douglas was promoted to Regional Fire Training and Prevention Officer as a Forester 1.

Currently, Douglas is using his expertise in strategic planning to create and implement a statewide Prevention plan which will streamline the operations process to best support those officers in the field and has developed a training course for prevention officers. He is also utilizing the Fire Education program and will complete his Emergency Services degree at University of Alaska Fairbanks. To date he holds the rank of Wildfire Resource Technician 5 as Statewide Prevention and Training Officer for Alaska Division of Forestry.



Arlene Weber-Sword – 20 years

Arlene first began working for the Division of Forestry in 1985 as the Logistics Technician in McGrath. Prior to her employment with Forestry she worked for BLM and the Alaska Fire Service on a suppression crew and in dispatch. In 1995 Arlene accepted the position as Forestry's Communications and Technical Systems Coordinator and served in that capacity for seven years. As Forestry's Fire Staff Officer since 2002, Arlene coordinates obtaining and the administration of federal State Fire Assistance, Volunteer Fire Assistance, American Recovery and Reinvestment Act and Western WUI Competitive grant funding as well as providing general staff support to the fire program.

Arlene has served on numerous committees over the years including the Alaska Wildland Fire Coordinating Group's Prevention and Education Committee, Weather Committee and Fuels committee. Arlene was the fire program's representative for the development of Alaska's 2010 State Assessment of Forest Resources and Strategy and Forest Action Plan. Arlene supports the fire program during periods of heavy fire activity primarily by assisting the State Coordinator at the Alaska Interagency Coordination Center in Fairbanks.

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

EMPLOYEE RECOGNITION



Sue Christensen – Retirement

Sue Christensen began working fire in 1975 as an EFF for four years at the BLM warehouse and then worked for BLM Training 1978-1979. Sue started in April 1979 at Fairbanks Area Forestry as a Forestry Technician, she retired June 2011 after 32 years of service. Sue was the first woman to be hired at FAS Forestry. She began work in prevention as a lookout on the Birch Hill lookout tower, the last year the tower was staffed.

Sue worked in suppression as an Engine and Helitack crew leader. She worked several years in the Fairbanks warehouse.

In 1987 Sue transferred to Dispatch at FAS. In 1990 she became the Lead Dispatcher and Logistics Coordinator for FAS. In 1996 she transferred to AICC as the State Intelligence Coordinator. In 2001 Sue accepted the Alaska Interagency Coordination Center Intelligence Coordinator position.

Sue served on the Alaska T2 Teams as a Finance Section Chief since 1988. She has had many assignments as a Crew Administrative Representative when the crews are mobilized to the Lower 48 and she has been assigned as a Supervisory/Support Dispatcher and numerous finance assignments.

Since 1988, Sue has taught numerous Incident Business Management classes for the State of Alaska, the University of Alaska, and the interagency community. Sue is continuing her teaching career in Fire Business Management for UAF, DOE, and AFS. Sue enjoys reading, gardening, taking cruises, and driving her sports car.

We look forward to working again with Sue on any assignments she chooses to take.



Frank Cole - Retirement

Frank Cole retired after many years of service. He started with the Division of Forestry in April of 1979 and retired in November of 2012. Frank was on the first helitack crew with the Division of Forestry and he worked in several jobs (forest technician, dispatcher, intelligence coordinator, fire behavior specialist). Frank retired as the State Logistics Center Assistant manager and he served as the acting SLC manager for most of 2011. Frank responded to many fire assignments throughout his career, in Alaska, and all over the country.

Frank was meticulous in his fire behavior work and he provided accurate information and advice to Area personnel during the fire season. Some of his work was instrumental in the Millers Reach case.

Frank plans to spend more time with his family and pursuing other interests he has put aside for his many years working with the state.

DIVISION OF FORESTRY DIRECTORY

State Forester's Office

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

State Forester

"John ""Chris"" Maisch, 451-2666"

Deputy State Forester

Dean Brown, 269-8476

Admin. Services Manager

Keri Hubbard, 269-8477

Chief of Fire and Aviation

Tom Kurth, 451-2675

Forest Resources Program Mgr.

Jim Eleazer, 269-8473

Forest Planning

Jim Schwarber, 451-2704

Community Forestry Program

Patricia Joyner, 269-8465

Forest Health & Protection

(Insects and Disease)
Roger Burnside, 269-8460

Forest Stewardship Program

(Landowner Assistance)
101 Airport Road
Palmer, Alaska 99645
Jeff Graham, 761-6309 fax: 761-6201

State Fire Operations

P.O. Box 35005
Ft. Wainwright, Alaska 99703
356-5850 fax: 356-5855
Robert Schmoll, Operations Forester

Logistics: 356-5645
Intelligence: 356-5674
Air Attack: 356-5852
Training, Anchorage: 269-8441
AICC Coordinator: 356-5682

State Fire Support

3700 Airport Way
Fairbanks, Alaska 99709-4699
451-2608 fax: 451-2690
Martin Maricle, Fire Support Forester

Aviation Program

101 Airport Road
Palmer, Alaska 99645
761-6271 Fax: 761-6273
Steve Elwell, Aviation Mgr.

NORTHERN REGION

Northern Region Office

3700 Airport Way
Fairbanks, Alaska 99709-4699
451-2660 fax: 451-2690
Mark Eliot, Regional Forester
State Logistics: 451-2680
Aviation Mgmt.: 451-2691
State Communications: 451-2810

Fairbanks Area Office

451-2600 fax: 458-6895
K. T. Pyne, Area Forester
Fire line: 451-2626
Fire Ops. Fax: 451-2633
Reception: 451-2660
Logistics: 451-2680
Aviation Mgmt.: 451-2691

Delta Area Office

P.O. Box 1149
Delta Junction, Alaska 99737
(Mi. 267.5 Richardson Hwy.)
895-4225 fax: 895-2125
Al Edgren, Area Forester
Fire line: 895-4227

Tok Area Office

Box 10 (Mile 123.9 Tok Cutoff)
Tok, Alaska 99780
883-1400 fax: 883-5135
Jeff Hermanns, Area Forester
Fire line: 883-3473

Valdez/Copper River Area Office

P.O. Box 185
Glennallen, Alaska 99588
(Mi. 110 Richardson Hwy.)
822-5534 fax: 822-8600
Gary Mullen, Area Forester

COASTAL REGION

Coastal Region Office

2417 Tongass Ave. Ste 213
Ketchikan, Alaska 99901
225-3070 fax: 247-3070
Michael Curran, Regional Forester

Coastal Region Office Palmer Office

101 Airport Road
Palmer, Alaska 99645
Reception 761-6289
Dispatch: 761-6220
Aviation Mgmt.: 761-6229

Mat-Su/Southwest Area Office

761-6301 Fax 761-6319
Ken Bullman, Area Forester
Fire line: 761-6311
Burn Permit: 761-6338

McGrath Field Office (Seasonal)

Box 130
McGrath, Alaska 99627
524-3010 fax: 524-3932
Fire Management Officer: Vacant
Fire line: 524-3366

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

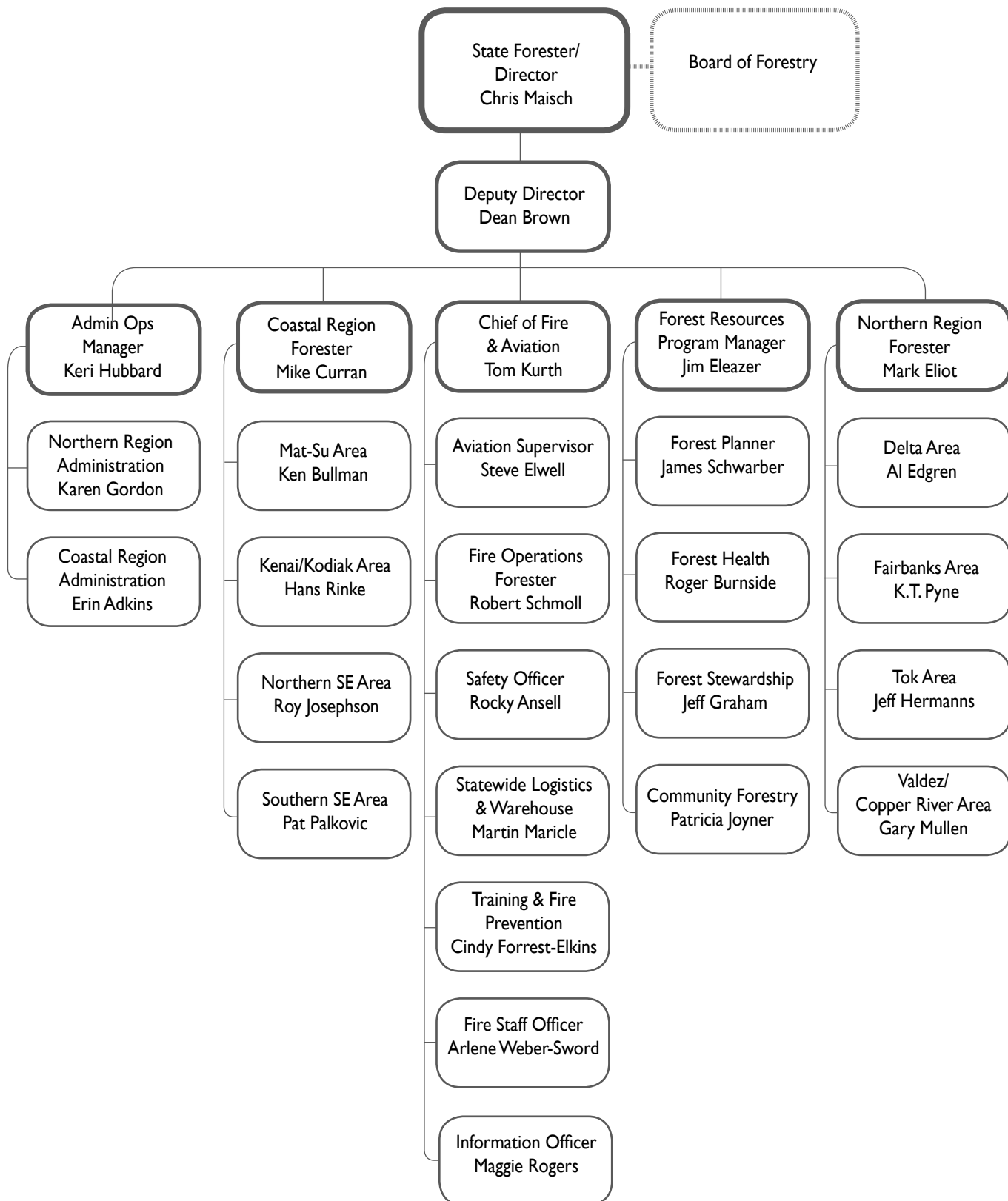
Northern Southeast Area Office

P.O. Box 263 (Gateway Building)
Haines, Alaska 99827
766-2120 fax: 766-3225
Roy Josephson, Area Forester

Southern Southeast Area Office

2417 Tongass Avenue, Suite 213
Ketchikan, Alaska 99901
225-3070 fax: 247-3070
Pat Palkovic, Area Forester

DIVISION OF FORESTRY ORGANIZATIONAL CHART



2013 BUDGET

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

FUNDING SOURCES	FOREST MGMT & DEVELOPMENT	FIRE PREPAREDNESS	FIRE ACTIVITY	TOTALS
General Funds	\$3,800.6	\$16,894.5	\$6,663.3	\$27,358.4
Federal Funds	\$1,209.6	\$1,653.6	\$11,960.4	\$14,823.6
Capital Improvement				
Receipts (Fed, GF, & SDPR)	\$304.3	\$897.4	0	\$1,201.7
Interagency Receipts	\$488.1	\$392.5	0	\$880.6
Timber Receipts	\$842.1	0	0	\$842.1
Other (SDPR)	\$55.0	0	\$1,500.0	\$1,555.0
TOTALS	\$6,699.7	\$19,838.0	\$20,123.7	\$46,661.4
POSITIONS				
Permanent Full-Time	45	33	0	33
Permanent Part-Time/Seasonal	5	186	0	186
Non-Permanent	13	0	0	0

FOREST MANAGEMENT & DEVELOPMENT COMPONENT

RENEWABLE RESOURCE DEVELOPMENT & SALES	COASTAL REGION	NORTHERN REGION	STATEWIDE	TOTALS
Board of Forestry	0	0	\$18.0	\$18.0
Forest Practices	\$599.1	0	\$70.8	\$669.9
Forest Management	\$1,189.3	\$1,405.9	\$670.2	\$3,265.3
Anchorage School				
District Interns	\$52.6	0	0	\$52.6
Interagency Receipts	0	0	\$488.1	\$488.1
Stat. Desig. Program				
Receipts (SDPR)	0	0	\$55.0	\$55.0
Federal Cooperative				
Forestry Assistance	0	0	\$1,209.6	\$1,209.6
Capital Improvement				
Receipts (Other)	0	0	\$304.3	\$304.3
Subtotals	\$1,841.0	\$1,405.9	\$2,816.0	\$6,062.8
Director's Office	0	0	\$636.9	\$636.9
COMPONENT TOTALS	\$1,841.0	\$1,405.9	\$3,452.9	\$6,699.7

FIRE SUPPRESSION PREPAREDNESS COMPONENT

	COASTAL REGION	NORTHERN REGION	STATEWIDE	TOTALS
Preparedness	\$3,798.1	\$3,344.6	\$9,751.9	\$16,894.5
Interagency Receipts	0	0	\$392.5	\$392.5
Federal Cooperative				
Forestry Assistance	0	0	\$1,653.6	\$1,653.6
Capital Improvement				
Receipts (Other)	0	0	\$897.4	\$897.4
COMPONENT TOTALS	\$3,798.1	\$3,344.6	\$12,695.4	\$19,838.0

2012 ACTUALS

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

FUNDING SOURCES	FOREST MGMT & DEVELOPMENT	FIRE PREPAREDNESS	FIRE ACTIVITY	TOTALS
General Funds	\$3,788.4	\$16,273.9	\$14,274.7	\$34,337.0
Federal Funds	\$875.7	\$954.9	\$12,651.3	\$14,481.9
Capital Improvement				
Receipts (Fed, GF, & SDPR)	\$308.3	1,418.2	0	\$1,726.5
Interagency Receipts	\$673.8	\$372.3	\$47.9	\$1,094.0
Timber Receipts	\$147.7	0	0	\$147.7
Other (SDPR)	\$8.7	0	\$52.7	\$61.4
TOTALS	\$5,802.6	\$19,019.3	\$27,026.6	\$51,848.5
POSITIONS				
Permanent Full-Time	45	33	0	78
Permanent Part-Time /Seasonal	5	186	0	191
Interns	13	0	0	13

FOREST MANAGEMENT & DEVELOPMENT COMPONENT

RENEWABLE RESOURCE DEVELOPMENT & SALES	COASTAL REGION	NORTHERN REGION	STATEWIDE	TOTALS
Board of Forestry	0	0	\$25.1	\$25.1
Forest Practices	\$621.6	0	\$91.8	\$713.4
Forest Management	\$1,022.8	\$1,266.1	\$385.5	\$2,674.4
Anchorage School				
District Interns	\$36.2	0	0	\$36.2
Interagency Receipts	\$47.1	\$23.6	\$603.1	\$673.8
Stat. Desig. Program Receipts (SDPR)	2.7	6.0	0	\$8.7
Federal Cooperative				
Forestry Assistance	0	0	\$875.7	\$875.7
Capital Improvement				
Receipts (Other)	\$188.8	\$89.6	\$29.9	\$308.3
Subtotals	\$1,919.2	\$1,385.3	\$2,011.1	\$5,315.6
Director's Office	0	0	\$486.9	\$486.9
COMPONENT TOTALS	\$1,919.2	\$1,385.3	\$2,498.0	\$5,802.6

FIRE SUPPRESSION PREPAREDNESS COMPONENT

	COASTAL REGION	NORTHERN REGION	STATEWIDE	TOTALS
Preparedness	\$4,004.7	\$4,106.6	\$8,162.6	\$16,273.9
Interagency Receipts	\$57.4	\$83.6	\$231.3	\$372.3
Federal Cooperative				
Initial Attack	\$106.0	\$149.2	\$699.7	\$954.9
Capital Improvement				
Receipts (Other)	\$100.1	\$210.6	\$1,107.5	\$1,418.2
COMPONENT TOTALS	\$4,268.2	\$4,550.0	\$10,201.1	\$19,019.3



1. Snake River fire in Dillingham. Photo Tom Dean.
 2. STC helilogging on Dall Island. Photo Nan Floyd.
 3. Bear Creek #4 fire. Photo Matt Snyder.
 4. Salcha hazard controlled burn.



Alaska Department of
**NATURAL
 RESOURCES**



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