ALASKA DEPARTMENT OF NATURAL RESOURCES

DIVISION OF

FORESTRY

1994 ANNUAL REPORT

DIVISION OF FORESTRY

Cover photos: Large photo by Patrick Purcell. Small photos (top to bottom) Bruce Johnson, Dean Brown, Scott Christy.

This publication was released by the Alaska Department of Natural Resources to provide information about the operations of the Division of Forestry during 1994. The report was printed in Anchorage, Alaska at a cost of $4.85 per copy for 540 copies.

The 1994 Annual Report was produced by Patricia Joyner, Division of Forestry. Cover by Diane M. Dusek, Division of Land, Technical & Data Support Unit.

ERRATA

Please note the following corrections to the Alaska Division of Forestry 1994 Annual Report:

Pages 3 and 6 state that "The harvest of **9.4 million board feet** of timber on state lands added $783,997 to state revenues in 1994." The correct figure is "**27.5 million board feet** of timber."

Pages 8 and 9: Replace these pages with the attached pages, which have the correct figures. Some Valdez/Copper River Area sales were omitted from the original figures.

Page 27: The **Active Harvest Acreage for the Kenai/Kodiak Area** for 1994 should be listed as **38,556**, rather than 9,781. This changes the **Coastal Region total to 92,099** and the **state total to 105,836**.

Alaska Department of Natural Resources
Division of Forestry

1994
Annual Report

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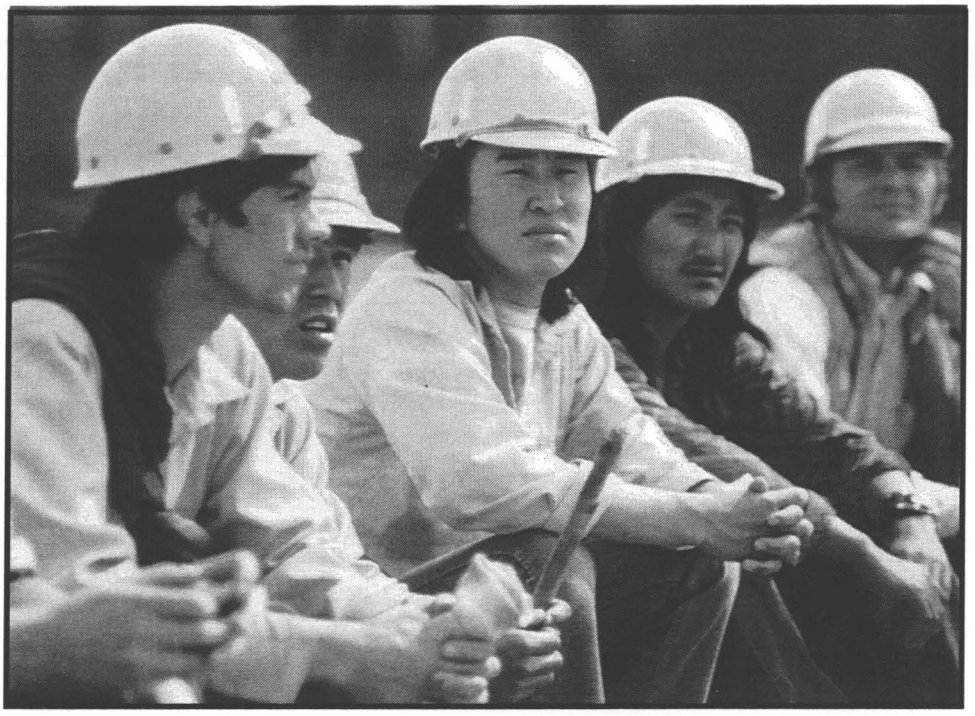
Alaska Emergency Firefighters



The 1994 Annual Report is dedicated to emergency firefighters—Alaska's EFFs. The crews, predominantly from rural villages, carry on a long-standing tradition of safe and cost-effective fire suppression. They tirelessly protect state and private land as required by state law. They constitute the main part of the service we provide as a fire suppression contractor to the federal government in Alaska and to land management agencies in the Lower 48. The Alaska Fire Service and the Division of Forestry maintain a combined force of 73 emergency firefighting crews, a total of 1,168 highly-skilled men and women.

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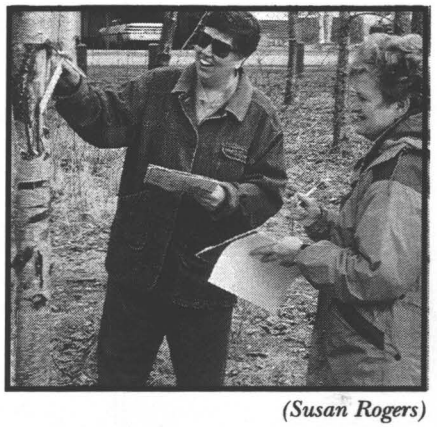
(Glen Holt)


(Susan Rogers)

Division of Forestry

The Division of Forestry is one of nine divisions within the Alaska Department of Natural Resources. It was established as a division in November, 1981. Prior to that time it was a section within the Division of Forest, Land and Water Management.

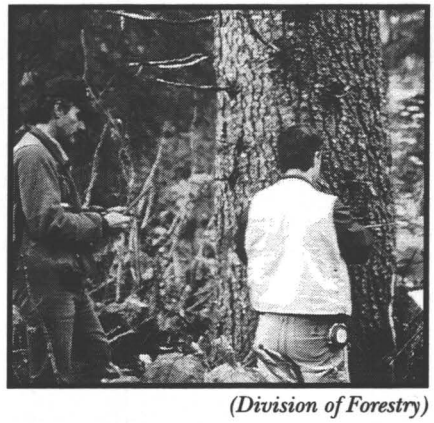
The division's mission is to protect the state's forested land and forest resources, and to manage them for multiple use and sustained yield.

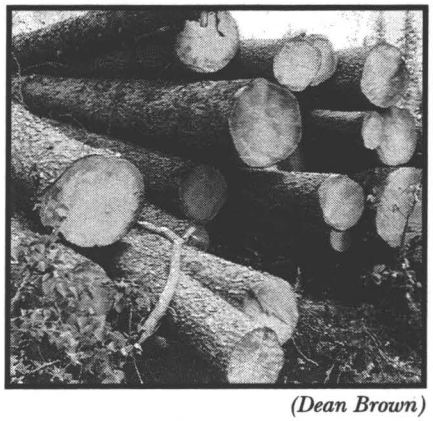
The Division of Forestry:

- protects water quality, fish and wildlife habitat and other forest values through appropriate forest practices and administration of the Forest Resources and Practices Act;
- manages a wildland fire program on public, private and municipal lands;
- encourages development of the timber industry and forest products markets;
- administers the Urban & Community Forestry and Stewardship programs;
- manages the Haines and Tanana Valley state forests (over two million acres);
- conducts personal-use and commercial timber and fuelwood sales;
- gives technical assistance to forest landowners;

The division has a central office in Anchorage for policy and program direction, two regional offices and 11 area offices responsible for program support and field work.

In 1994 the division employed 73 people full-time, 137 seasonally and about 750 as emergency firefighters.


(Division of Forestry)


(Dean Brown)

State Forester's Comments

The *1994 Annual Report* describes accomplishments and operations during the calendar year. The year brought record stumpage receipts to the state and record income to rural villages by firefighters representing Alaska in the Lower 48. Due to bark beetle salvage sales during the 12 months preceding this writing the division offered 51 million board feet of timber at public auction, an offering rate that is over twice the average rate of the past five years. The year also brought a large out-of-court settlement of a long-standing lawsuit against a state timber settlement with the University of Alaska and a number of judicial decisions regarding state timber sales. All of the decisions were decided in favor of the Division of Forestry, allowing timber sales to proceed.

During 1994, the division continued to increase the amount of reforestation required of operators on state timber sales. For the first time more than half of state timber sales now require the operator to do most or all of the reforestation.

Reforesting a backlog of acres harvested in the past was given a strong financial endorsement when the Legislative Budget and Audit Committee approved stumpage receipts over the amount budgeted for fiscal year '95, up to a maximum of $600,000, to be placed in a reforestation fund. The committee action is especially appreciated. The state timber sale program relies upon adequate reforestation. It appears that the entire $600,000 will be put into the reforestation fund.

The special interest that DNR Commissioner Harry Noah and Deputy Commissioner Marty Rutherford took in the Division of Forestry is greatly appreciated. Their work allowed the division to develop the caliber of process and documentation required for the timber sale program which is now underway. I learned much about process from them and from the public. The division will continue to learn to listen to the public, produce better documentation and improve procedures.

Better documentation and improved processes helped give the credibility needed to have the 1987 lawsuit known as *Yakutat Fishermen versus DNR* withdrawn without the state paying any money to the plaintiffs. Timber rights conveyed to the University of Alaska had been protested by a number of plaintiffs, which included commercial fishermen, environmentalists and a municipality. The state and the university had spent an estimated $1 million on attorneys and consultants with no progress in the defense. In the settlement, the university is allowed to harvest at least 230 million board feet of Yakataga timber and the state agreed to not harvest at Cape Suckling for at least 20 years and to provide special protections for wildlife habitat on the university harvest.

Better documentation and improved procedures contributed substantially to success in the courts during 1994. Other components of the successes included the good fortune of having superior counsel and people in the forest products industry and academia who provided invaluable advice and documentation. One lawsuit filed against the division's forest management program sought relief because of plans to sell too little of the dead and dying timber on the Kenai Peninsula and another lawsuit sought relief because of plans to sell the same timber. The division has received summary judgment in its favor from both the State Superior Court and State Supreme Court on the former complaint.

The latter complaint has not been heard in court except that the plaintiffs have now taken 10 timber sales to court asking for a stay. Each time the court has denied the stay, allowed the sale to take place, and told the plaintiffs that they are unlikely to prevail on the merits of their complaint. Affidavits, provided upon as little as 24-hours notice by many friends of the division, were essential to our defense.

Court is the wrong place to settle resource issues. Everyone won in the Yakataga out-of-court settlement and those who needed it received conclusive evidence that environmental protection concerns will allow timber harvest in Alaska as long as all parties see strong provisions for habitat protection and a fair and open process. While opposed by some of the leading environmental activists in Alaska, the complaint against Kenai Peninsula timber sales is a costly process breakdown. It is also a personal disappointment. I sincerely believe that continued hard work at opening the process and listening to the concerns of people who are active in resource decisions will allow the division to do a better job and stay out of court.

continued

The Eighteenth Alaska Legislature deserves thanks from the Division of Forestry. Capital funds were appropriated for forest practices effectiveness research and monitoring. An ongoing record of how well forest practices and the law are protecting fish habitat and water quality is essential to resource protection and the timber industry.

Questions about some aspects of the Alaska Forest Resources and Practices Act were answered in the field. The use of the variation process to harvest trees from some riparian buffers on private land was examined by the commissioners of the departments of Natural Resources and Fish and Game in the field. The commissioners endorsed keeping the decision-making on the ground and concurred with the decisions and approach they saw. Some of the questions were answered in part by reaching consensus among the agencies on procedures for responding to and elevating disagreements. A record of Forest Resources and Practices Act actions begins on page 26.

An overview of the Alaska Forest Resources and Practices Act was published in the September 1994 edition of the *Western Forester.* Reprints are available at the Juneau and Anchorage offices.

The Board of Forestry advised and assisted the Division of Forestry throughout the year, met three times and reported to the governor and the legislature. The board is an independent forum for forest practices regulations, a facilitator in the resolution of resource conflicts and a technically-experienced body for the providing advice to the division. Information on the Board of Forestry can be found on page 29.

Budget realities have and will continue to lead us to examine programs for cost-effectiveness. The timber sale program will absorb budget reductions, with areas that are least cost-effective being cut first. The Tok timber sale forester position was held vacant during 1994 and there is no expectation that it will be filled. Personal use and those commercial timber sale programs that are not cost-effective will be reduced as the operating budget is cut even though the timber sale program as a whole brings a strong net return to the state.

Division of Forestry personnel work hard; they work safely and they work professionally. Some of the accomplishments noted here required all-night work on maps and documentation. Fire suppression personnel fought fires throughout the West and represented Alaska very well, without regard to the time clock and camp conditions. Forestry personnel contributed their own time to represent the division at a variety of conventions, write journal articles and explain forestry issues at every forum.

1994 was my first full calendar year at the Department of Natural Resources. I continue to appreciate the opportunities for personal growth and hard work. On days when internal structures present challenges to making any sort of headway I remind myself that Forestry is responsible to the public and that the public deserves progress and production. Please let me know of your concerns and ideas.

Thank you.

Tom Boutin
Alaska State Forester

Highlights of 1994

Forest Management

- The Division of Forestry planted 404,190 seedlings on 768 acres of state land.
- The division contracted for aerial photographs of 1.8 million acres in the Tanana Valley—the first time the division has contracted for aerial photographs in over 20 years. The photos are used for forest management and to prepare timber sales.
- Thirty million acres of Alaskan forests were mapped to compile the annual forest condition report. This report was provided to land managers statewide.
- The division, U.S. Forest Service and residents of Moose Pass began a project to identify and mitigate the effects of bark beetles near that Kenai Peninsula community.
- As part of ongoing efforts to address spruce beetle damage on the Kenai Peninsula, the division sold 12 salvage sales for a total volume of 20 million board feet. Revenues paid to the state for reforestation and from stumpage fees totaled one million dollars.
- The division processed 195 forest practices notifications of timber harvest and 60 renewals of harvest on 77,061 acres, and conducted 217 field inspections.

Timber Production

- The harvest of 9.4 million board feet of timber on state lands added $783,997 to state revenues—the greatest revenue for annual sales since 1984.
- The number of personal use fuelwood permits increased from 553 in 1993 to 907 in 1994, and personal use house log sales increased from nine to 16.
- The number of beach log salvage sales more than doubled this year—from 15 to 33.
- The division issued 41 commercial saw log and 13 commercial fuelwood contracts. It also registered 72 log brands.

Fire Protection

- In cooperation with federal agencies, the division provided fire protection for 134 million acres of private, municipal and state land.
- Emergency fire fighters collected more than $9 million in state and federal wages.
- The division supported record fire fighting efforts in the western states, supplying, along with BLM and the Forest Service, 83 20-person fire fighting crews (1,660 Alaskan hires) and 166 managers. The Alaska Interagency Incident Command Team had assignments in Idaho and Oregon.
- The division provided $1.5 million in supplies and equipment to the western states for fire fighting.
- The Division of Forestry administered 20 federal Rural Community Fire Protection Grants totaling $77,000.
- The division supplied personnel, aircraft and equipment to the Koyukuk flood recovery effort, in response to a request from the Department of Military & Veterans' Affairs and the governor's declaration of emergency.

Cooperative Assistance Programs

- Alaska hosted the international conference of the Society of American Foresters and the Canadian Institute of Forestry, attended by 1,700 people from 60 countries. Welcoming addresses were given by Interior Region Forester and Alaska SAF Chair Les Fortune, and State Forester Tom Boutin.
- Urban & Community Forestry Grants totaling $26,365 (federal funds) were made to seven communities. The grants were matched with $31,427 in local funds and services. In addition, a Small Business Administration grant helped plant trees in six communities. The $38,327 grant was matched by $44,087 in local funds.
- The division sponsored Alaska's first Urban & Community Forestry conference, which was attended by 100 people.
- The division held 21 Project Learning Tree workshops, attended by over 200 teachers and resource professionals in 11 communities. The U.S. Forest Service, Alaska Forest Association, Alaska Cooperative Extension and Department of Education supported this environmental education program.
- A full-time Stewardship Forester was assigned to the Kenai Peninsula.
- Forest Stewardship Program foresters assisted private forest landowners to prepare 31 stewardship plans covering 2,189 acres.

Resource Management

Forest Regeneration

Science & Technology Foundation Funds Reforestation Research

The Alaska Science and Technology Foundation awarded a $267,000 grant to Dr. Mike Newton of Oregon State University for reforestation research in Alaska. The grant will fund a 12-year project to examine successful reforestation methods, using different seedling sizes and levels of competition from other vegetation at the planting site. The divisions of Forestry and Agriculture are cooperating to produce large two- and three-year-old seedlings for the project. Planting sites will be located on Fort Richardson and on native corporation lands near Fairbanks and Ninilchik.

Pre-harvest Site Preparation Promotes Natural Regeneration

To take advantage of the excellent cone production in the fall of 1994, the division did pre-logging site preparations on about 900 acres of state land south of Soldotna. Eight small timber sale operations were scheduled so they would begin after the seeds fell.

Mineral soils were exposed on about ten percent of the sites to allow the seeds to germinate and the seedlings to grow with a minimum of competition from vegetation. The objectives were to reduce costs by obtaining natural regeneration and to capture the genetic diversity and natural adaptation of the forest. Most of the spruce seed parent trees were dead after the 1994 beetle flight.

Regeneration Surveys Complete

Forestry's Fairbanks Area Office completed surveys on more than 200 harvested acres to determine if regeneration efforts have been successful in areas that have been planted or stocked by natural regeneration. The survey was done in May before green-up, when the best results are gained.

Volunteers Plant Seedlings

The divisions of Forestry and Parks, and Sierra Club volunteers planted white spruce seedlings at the Johnson Lake Campground on the Kenai Peninsula on Saturday, September 24. Parks selected this area because trees had been damaged by campground users and spruce bark beetles. The *Anchorage Daily News* purchased the seedlings from the Division of Agriculture and donated them to the project.

In June, Forestry's Big Lake Office burned 25 acres on the Matanuska Valley Moose Range to prepare for tree planting. The trees were then planted by prisoners and the division's student intern crew under the supervision of Forestry staff.

The Division of Forestry and the Institute of Northern Forestry placed seed traps in a Kenai Peninsula forest to assess the magnitude of white spruce and birch seed fall. Foresters retrieved the traps after an early snowfall and counted the seeds. (Tom Liebscher)

Reforestation in Interior Alaska includes both natural regeneration and planting of seedlings. This tract, located next to the Bonanza Creek experimental forest 20 miles west of Fairbanks, was logged in the late 1970s before the 1983 Rosie Creek fire burned much of the surrounding area. These trees, being inspected by Fairbanks Area Forester Pete Buenau, were planted as seedlings in the mid-1980s following scarification and show the exceptional growth that white spruce are capable of achieving. (Dean Brown)

Reforestation on State Land - 1994

Areas	Seedlings Planted	Acres Planted	Acres Scarified
Kenai/Kodiak	8,000	16	0
Mat-Su	17,690	32	62
Haines	21,000	70	0
Tok	17,500	27	15
Fairbanks	320,000	530	50
Delta	20,000	100	0
Total	**404,190**	**768**	**127**

Timber Development

The harvest of 9.4 million board feet of timber on state lands added $783,997 to state revenues in 1994—the greatest revenue for annual sales since 1984.

Cape Yakataga/Cape Suckling Settlement Agreement Reached

The Cape Yakataga/Cape Suckling timber trade agreement was approved and signed on December 2. In the agreement the University of Alaska traded rights to harvest 309 million board feet at Cape Suckling for rights to harvest at least 230 million board feet east of the Duktoth River. The university also agreed to:

- fund $250,000 in fisheries, forestry and wildlife research in the region;
- fund a $50,000 study and finance up to $450,000 for a hut-to-hut trail and cabin system; and
- provide for the training and employment of local residents and contractors in timber harvesting.

As part of the agreement, plaintiffs in the *Yakutat Fishermen's Association, et al. versus Brady* agreed to withdraw from the suit, not appeal the timber conveyance nor litigate the Yakataga area plan, protect the agreement from suits and not challenge permits required for university timber harvests in the area. DNR agreed to not have a timber sale in the area for at least 20 years and until after the area plan is amended. DNR also agreed to some land entitlement and classification requests on the City and Borough of Yakutat road system. The agreement contains many habitat provisions specific to particular units. The Habitat Division of the Department of Fish & Game was instrumental in bringing about this agreement.

This 41-acre salvage sale of 110,000 cubic feet of white spruce (450,000 board feet) was harvested by a Fairbanks company. The sale was located in the Tanana Valley State Forest, 30 miles west of Fairbanks, and consisted of an even-aged, 150-year-old stand of spruce and birch. More than one-third of the spruce were dead or broken. White spruce seedlings were planted soon after the harvest was completed. (Dean Brown)

Forest Inventory

Two large forest inventory projects, funded by capital project appropriations by the legislature, made substantial progress in 1994.

Aeromap of Anchorage, on contract with the Division of Forestry provided aerial photography of 1,800,000 acres in the Tanana Valley. Photos are color infrared at a scale of 1:16,000 (4 inches equals one mile) with sufficient overlap to provide stereo coverage. The photos are already being used by the Interior Region in forest management planning and sale layout. The Fairbanks Area Office is exploring means to develop electronic images of the photos for integration with its forest information system.

Plot sampling of hardwoods and mixed spruce and hardwoods continued in the fall. Sixty-two cluster plots were measured by seasonal forest technicians and staff foresters. The plots add to the growing database of forest information available for projecting volume and growth of Tanana Valley State Forest resources.

Publications produced in 1994, with assistance from the division's inventory forester, include the Haines State Forest Resource Management Area Forest Inventory and Alaska Forest Insect & Disease Survey Maps.

Other GIS and inventory projects completed in 1994 include an analysis for the University of Alaska Yakataga Timber Settlement, automation of the 1993 and 1994 forest insect and disease aerial surveys, and development of ArcView databases of forest information for distribution to Forestry area offices.

Log Brands

Seventy-two log brands were issued in 1994. Twenty-four of 52 existing brands were renewed and 48 new brands were registered. This turnover in brand registrations continued a trend toward an increased number of small company and family operators.

Winter Harvesting in the Interior

In the Fairbanks area, 75 percent of the timber harvesting is done during the winter. Despite cold temperatures and limited daylight, operators often work 24-hour days. Although deep snow can make access difficult, once winter trails are established they provide a good surface for transporting timber.

A good example of successful winter harvesting is sale NC-761, located in the Tanana Valley State Forest along Goldstream Valley, west of Fairbanks. This sale was sold in May, 1993 at a record price for interior timber of $203 per thousand board feet. The entire 3.9-million board foot sale was harvested in the late fall and early winter of 1994. The 238 acres harvested will be replanted with white spruce seedlings in 1995, some of which were grown at the state nursery in Palmer.

Of the total sale value of $784,000, the state received $561,000 in stumpage payments.The remaining $223,000 was for road and bridge construction needed to reach the sale area.

Timber sale NC-761 sold in the Tanana Valley State Forest for a record price of $203 per thousand board feet. The harvest of 3.9 million board feet was completed in the fall of 1994. (Gary Reabold, Gary Hopkins)

Owls Roost in Wood Products Warehouse

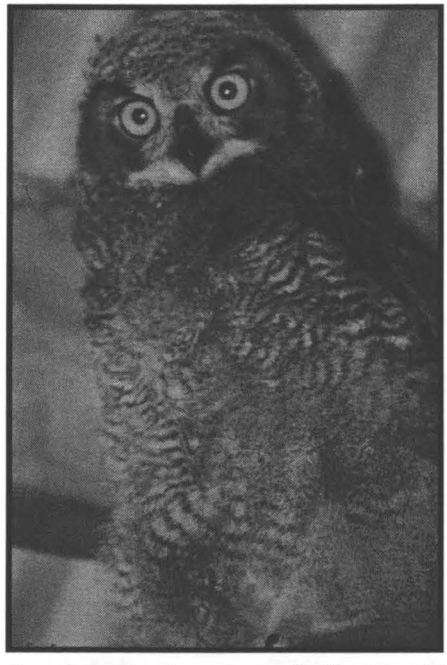
A pair of great horned owls living in the warehouse of Northland Wood Products have proved far more effective at scaring off ravens and squirrels than the plastic fakes employees hung around the building.

For the fifth summer, owls chose the Fairbanks business as their nesting ground. For the second year in a row they've chosen to hatch their young in a nest above a planer.

Planer foreman Marty Shillington shut down the machine for three weeks this year to encourage the mother bird to stay with the nest. For his efforts, Shillington was rewarded with the birth of one healthy baby owl and some talon marks on his neck and back.

The birds roosted in an old nest above the planer in late April and hatched their young a few weeks later. Shillington often sneaked up for a look at the tiny owlet while the mother was away. While working he sometimes heard her click her beak as a warning that he was too close to the nest.

In mid-May, however, Shillington was about 20 feet from the nest when he jumped up on the planer to shift some wood. Without warning, the mother owl swooped from her perch on the beams above him, knocked him flat,



Great horned owl roosting in the Northland Wood Products warehouse in Fairbanks. (Jim Brown)

then flew away. "It felt like a well-thrown basketball right between the shoulder blades with a little prickle," he said. "I didn't respect her space enough."

Northland Wood managers want the owls to stay because they kill ravens and squirrels, which shred wood, rip up protective covers, and destroy insulation. The owls generally stay in the warehouse until July when they fly to the woods near the business.

(from *Alaska Timber Times,* July 1994)

Timber Sold and Cut on State Land
1980 ~ 1994

Year	Annual Sales Volume (MBF)		Annual Cut Volume (MBF)		Cut Value
1980	4,949		47,547		$1,254,500
1981	18,402		53,678		$1,491,554
1982	24,154		35,198		$488,512
1983	72,145		35,511		$402,774
1984	21,087		28,044		$833,793
1985	20,178		12,864		$192,109
1986	10,469		18,995		$233,862
1987	27,588		25,884		$379,540
1988	27,475		25,177		$515,980
1989	21,600		22,711		$514,632
1990	35,783		18,603		$477,580
1991	10,156		16,241		$236,205
1992	9,969	(24,105 ccf)	26,802	(63,702 ccf)	$1,090,164*
1993	27,293	(65,206 ccf)	9,383	(23,240 ccf)	$342,581
1994	27,695	(66,467 ccf)	27,463	(65,911 ccf)	$783,997

* Includes a back payment of $413,665.

Timber Sold and Cut on State Land by Region
Calendar Year 1994

Following are the volumes of timber cut and sold in board feet and in cubic feet. The combined volume is tallied in the table at the top of this page.

Volume Sold

	Sawtimber		Other Products[1]		Total Volume	
	MBF	CCF	MBF	CCF	MBF	CCF
Coastal Region	13,445	170	1,223	1,440	14,668	1,610
Interior Region	986	18,010	769	7,432	1,755	25,442
Totals	**14,431**	**18,180**	**1,992**	**8,872**	**16,423**	**27,052**

Volume Cut

	Sawtimber		Other Products[1]		Total Volume	
	MBF	CCF	MBF	CCF	MBF	CCF
Coastal Region	6,822	0	36	252	6,858	252
Interior Region	1,287	26,303	1,437	16,359	2,724	42,662
Totals	**8,109**	**26,303**	**1,473**	**16,611**	**9,582**	**42,914**

[1]*Other products include pulp logs, fuel wood, house logs, etc.*

Commercial and Personal Use Contracts Issued
Calendar Year 1994

Region	Commercial Use			Personal Use		
	Fuelwood Sales	Saw Log Sales	Beach Log Salvage	Fuelwood Permits	House Log Sales	Saw Log Sales
Coastal						
Anchorage/Mat-Su	0	3	0	82	6	11
Kenai/Kodiak	2	11	0	5	3	0
Haines	0	9	24	0	0	3
Juneau	0	0	9	0	0	0
Totals	**2**	**23**	**33**	**87**	**9**	**14**
Interior						
Fairbanks	5	8	0	680	5	0
Delta	2	6	0	66	0	0
Tok	4	1	0	67	1	0
Valdez/Copper River	0	2	0	10	2	1
Southwest (McGrath)	0	3	0	0	3	2
Totals	**11**	**20**	**0**	**823**	**11**	**3**
GRAND TOTAL	**13**	**43**	**33**	**910**	**20**	**17**

Average Sawtimber Stumpage by Species
Calendar Year 1994

	Aspen	Birch	Hemlock	Sitka Spruce	White Spruce
MBF	--	--	$15.92	$206.35	$34.0
CCF	$2.91	$7.85	--	--	$11.07

Timber Measurments

MBF = thousand board feet

MMBF = million board feet

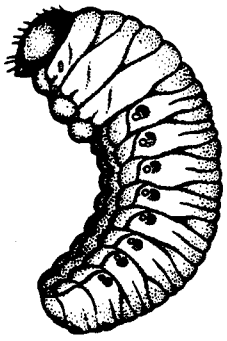
CCF = hundred cubic feet

Board foot is the unit used to measure lumber. One board foot equals one foot square by one inch thick. In log scale, one board foot is the amount of wood fiber that, if sawn, is estimated to produce one foot of lumber.

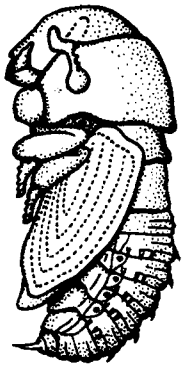
Cubic foot is the unit used to measure volume of wood, regardless of the intended end product.

Forest Health Management

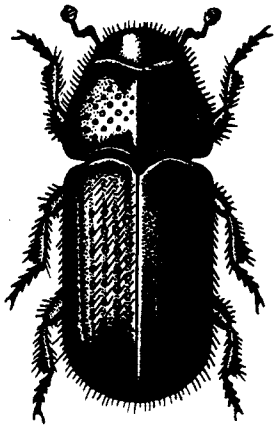
Spruce bark beetle



larva



pupa



adult

Insect Detection Aerial Surveys

Summaries of acres infested by pests, as determined by aerial surveys, should be reviewed with the understanding that the number of acres given are an estimate based on the area surveyed during a particular year (see table on page 12). Also, aerial surveys do not give a picture of cumulative pest damage because only visible, *new* pest activity can be seen and mapped each year. Figures should be compared with other information, such as previous years' condition reports and on-the-ground survey information, for the most reliable picture of the stage of the infestation, damage trends and damage severity (percent of damage). For example, aerial surveys of spruce beetle activity measure visible signs, such as red foliage, resulting from beetle attacks the previous year; current year beetle activity won't be visible from the air until the next year. On-the-ground information about individual pests or damage in a specific area is available from entomologists at the Division of Forestry (907-762-2107) or the U.S. Forest Service (907-271-2575).

Forest Insects

Although forest insect and disease damage levels remained static in 1994 relative to 1993, the year was characterized by dramatic declines in some insect populations, offset by dramatic increases in others.

Spruce beetles, the most important agent of change affecting Alaskan spruce ecosystems, showed a slight decline of 80,000 acres in 1994. The areas with the most significant decline were near Haines in southeast Alaska, and in the upper Copper River Valley, Nulato River area and parts of the Kuskokwim River in interior Alaska.

Other areas of the state, however, experienced notable increases in spruce beetle activity. These included the east end of Lake Iliamna and the mid-Copper River Valley from Chitina south to Spirit Mountain. What appears to be one of the most rapidly expanding populations was seen near the headwaters of the North Fork of the Kuskokwim River near Lake Minchumina.

On the Kenai Peninsula there was no net increase in spruce beetle activity. Populations remained static in the Kachemak Bay area where no significant increase in new infestations was noted from the 1993 surveys.

Approximately 11,500 acres of Sitka spruce mortality was noted along the south side of the bay, based on aerial surveys. However, ground assessments completed during July and August near China Poot Lake and McKean flats indicated several spots of new beetle attacks that will not be visible in aerial surveys until next year. The western Kenai Peninsula infestation continued for the sixth consecutive year with a few areas of new beetle activity noted north of Tustumena Lake and on the south end of the peninsula between Anchor Point and Homer.

The total acreage of spruce beetle activity in southeast Alaska declined dramatically in 1994. However, two new areas of activity were identified—one on the north side of the Taku River opposite the mouth of the Wright River, and another in the Yakutat Foreland area south of Russell Fjord. On the Taku River all of the stands with spruce beetle activity also experienced light-to-moderate defoliation by black-headed budworm.

Spruce beetle activity in lower Glacier Bay National Park now totals less than 500 acres. Ongoing spruce beetle activity near Haines impacted about 3,600 acres, down from the approximate 20,000 acres observed in 1993.

Engraver beetle infestations increased sharply in 1994, primarily in the Yukon Flats region and in several nearby river drainages such as the Porcupine, Chandalar and, most notably, in the Christian River drainage.

Hardwood defoliator populations declined from 113,000 acres of defoliation mapped in 1993 to 24,000 acres this year. Most of the decline was due to the crash of large aspen tortrix populations in the Yukon Flats and the continued decline of the willow leaf miner complex in the same general area. Spruce forests throughout the state showed an increase in defoliation levels (446,000 acres). White spruce forests in interior Alaska showed an increase of nearly 200,000 acres of defoliation by the spruce budworm. The most significant increase occurred in the Tanana area where 150,000 acres were affected. Other areas of notable activity were the Nenana Ridge/Goldstream Valley near Fairbanks and near Big Delta, where 22,000 acres of defoliated spruce were observed.

In southeast Alaska, the black-headed budworm outbreak impacted vast areas for the fourth consecutive year. More than 193,000

acres of defoliation by black-headed budworm was noted in 1994, down approximately 65,000 acres from 1993. Activity was again concentrated primarily north of Frederick Sound. Budworm defoliation has been most common in highly productive, old-growth stands, at elevations less than 1,000 feet. Substantial budworm defoliation is expected again in 1995.

Hemlock sawfly populations in southeast Alaska declined significantly in 1994. Sawfly activity was noted on approximately 3,400 acres (concentrated primarily in southern southeast Alaska), down from 19,000 acres in 1993. Areas with both budworm and sawfly defoliation comprised about 5,400 acres, down from 12,000 acres in 1993. Top-kill and some mortality was evident among western hemlock in several heavily defoliated areas. After a population crash in 1993, spruce needle aphid activity increased in several locales, including Sitka. Aphids continue to weaken spruce that were severely defoliated in the previous outbreak.

Ips engravers were especially active in young, dense stands of Sitka spruce in and around Haines during the summer of 1994.

Forest Diseases

The most important diseases of Alaskan forests in 1994, based on both ecological and economic considerations, were yellow cedar decline, wood decay of live trees and hemlock dwarf mistletoe. All three alter the structure, composition and succession of the forest.

Heart rot and butt rot fungi caused significant cull in all tree species in Alaska, particularly in coastal forests where about one-third of the gross volume is defective. Decay in living hardwoods is considerable throughout the state. Hemlock dwarf mistletoe continued to cause growth loss, top-kill and mortality in old-growth forests of southeast Alaska. The impact in young-growth stands depends on the presence of large infected residuals left after harvesting. On the positive side, heart rot forms tree cavities and dwarf mistletoe creates witches brooms, both of which benefit wildlife.

More than 550,000 acres of yellow cedar decline were mapped in an extensive area in southeast Alaska. About 10,000 acres were mapped on a combination of state land and small parcels of privately-owned land. Snags of yellow cedar accumulate on sites of decline and substantially alter forest composition as yellow cedar trees die, giving way to other tree species.

Foliar diseases of conifers are usually of little ecological significance and were generally at moderate levels throughout Alaska in 1994. The fungus *Rhizosphaera pini*, however, was found at high levels for the second consecutive year in southeast Alaska. An uncommon disease of second-year needles on Sitka spruce, caused by the fungus *Chrysomyxa weirii*, occurred at the most damaging levels ever recorded in southeast Alaska.

Hemlock canker disease subsided in 1994. This disease had killed western hemlock along roads of Prince of Wales, Kuiu and Chichagof Islands during the four previous years. Canker and foliar fungi caused large but unmeasured damage to hardwood species in the interior.

The most important diseases of Alaskan forests in 1994 were yellow cedar decline, wood decay of live trees and hemlock dwarf mistletoe.

Steve Clautice, Assistant Regional Forester for the Fairbanks Area, points out budworm damage in the Nanana Ridge area, west of Fairbanks. (Dean Brown)

1994 Forest Insect Activity and Diseases by Land Ownership and Acreage

The following figures are from the publication, "Forest Insect and Disease Conditions in Alaska - 1994," prepared by the U.S. Forest Service, State and Private Forestry, Forest Health Management, Region 10, Alaska. The table does not include many of the most destructive diseases, e.g., wood decays and dwarf mistletoe because those losses are not detectable in aerial surveys.

Pest/Damage[1]	State/Private	Nat'l Forest	Other Federal	Native	Total Acres
Spruce beetle	375,940[2]	12,790	191,040	60,150	**639,920[3]**
Engravers	2,840	— —	13,580	5,300	**21,720**
Spruce budworm	158,630	— —	11,400	62,920	**232,950**
Black-headed budworm affects hemlock, Sitka spruce	27,170	156,710	3,110	7,240	**194,230**
Hemlock sawfly	— —	3,170	— —	250	**3,420**
Black-headed budworm and hemlock sawfly combined	3,350	2,050	— —	— —	**5,400**
Larch sawfly	310	— —	— —	— —	**310**
Large aspen tortrix	9,840	— —	— —	— —	**9,840**
Spruce needle aphid	1,810	150	— —	— —	**1,960**
Spear-marked black moth	1,040	— —	360	— —	**1,400**
Cottonwood defoliation	380	470	100	2,270	**3,220**
Alder defoliation	450	— —	50	— —	**500**
Willow defoliation	1,580	470	3,630	3,330	**9,010**
Alaska yellow cedar decline[4]	10,430	550,380	— —	17,670	**578,480**
Blowdown	390	2,870	— —	— —	**3,260**
Flood damage (spruce)	620	— —	— —	— —	**620**
Flood damage (birch)	250	— —	— —	— —	**250**
Total acres by ownership	**595,030**	**729,060**	**223,270**	**159,130**	**1,706,490**

[1]Acreage entries for pests with economic importance (e.g., spruce beetle, spruce budworm) are estimates of total new pest activity statewide. Figures should be compared with other information, such as previous years' condition reports and on-the-ground survey information, for the most reliable picture of the cumulative number of infested acres, the stage of the infestation, damage trends and damage severity (percent of damage). For example, aerial surveys of spruce beetle activity measure visible signs, such as red foliage, resulting from beetle attacks the previous year; current year beetle attacks won't be visible from the air as red needles until the next year. On-the-ground information relative to individual pests or damage is available from Division of Forestry (907-762-2107) or Forest Service entomologists (907-271-2575).

[2]Combined total of spruce beetle activity on state-owned and small, private forested lands. A separate breakdown for state-owned acreage only is not available. Computerized data bases have been started in some areas of the state (e.g., western Kenai Peninsula, Tanana Valley State Forest, Haines State Forest) where planning efforts have begun. However, a computerized tracking system for comparisons on state, federal and private lands is still being developed. It is estimated that 1994 spruce beetle activity mapped on state-owned forested areas could be as much as 60 to 70 percent of this total (over 225,000 acres).

[3]Total new statewide spruce beetle activity decreased overall by 80,000 acres from 1993 totals.

[4]Totals for yellow cedar decline are not restricted to acreages with a high concentration of dying trees for this year, but also include stands that have long-dead, recently-dead and some healthy trees.

Forest Health Evaluation, Monitoring and Mapping

The Division of Forestry continues to assist the U.S. Forest Service (USFS) in preparing the annual statewide aerial detection survey of forest insects and diseases.

Approximately 30 million acres of Alaskan forests were flown and sketch-mapped during the summer of 1994 to compile the annual forest conditions report, which the USFS will publish in early 1995. The report will be distributed to native corporations, municipalities, foresters and other forest landowners and resource managers throughout the state.

In addition, Forestry and the USFS will publish a compendium of maps from the statewide aerial surveys in a separate publication in early 1995. For the second consecutive year the division's inventory and forest health protection units collaborated with USFS entomologists to publish this computerized Geographic Information System (GIS) map product of forest insect and disease sketch maps from the statewide aerial detection surveys. Contained in the publication are computerized GIS reproductions of the manual USGS quadrangle sketch maps (converted to 1:500,000 scale) from the pest survey, along with brief information about the surveys and survey results.

The GIS map publication is produced separately from the annual Forest Insect & Disease Conditions report, which gives a more detailed narrative of the statewide survey results. This report is a statewide assessment of forest pest activity and trends for federal, state and private resource managers and landowners.

The Division of Forestry updates its GIS data base from the annual survey and now has a complete data base of statewide pest activity from 1989 through 1994. More extensive computer databases are available for specific regions of the state, e.g., the western Kenai Peninsula. Forestry has released several forest health specialty maps from its archival GIS storage system which have a variety of uses including fire, forest pest, land ownership and forest vegetation mapping.

Forest Health Research

The Division of Forestry and the U.S. Forest Service are working together to develop practical methods to reduce beetle infestations using natural spruce beetle behavioral chemicals. The inaccessibility of most of Alaska's spruce forests, plus the tendency for widespread blow-down in this shallow-rooted species, make the use of these chemicals especially attractive. Researchers also hope to be able to use these chemicals to control population buildups in spruce right-of-way material and logging slash. So far, behavioral pheromones, especially the spruce beetle anti-aggregation pheromone MCH, show the most promise.

Cooperative studies continued to develop more efficient pheromone formulations to monitor and manipulate bark beetle populations. Field research completed near Clam Gulch on the Kenai Peninsula showed promising results. MCH was used in a bubble cap formulation to effectively reduce new spruce beetle attacks over small areas (one-half acre forest plots) compared to untreated control plots in the same area. Results from similar area testing in southeast Alaska near Haines were inconclusive.

MCH has the potential for preventing beetle damage in high-value trees, such as those near homes and public buildings and in campgrounds. Two studies conducted near Clam Gulch and Homer using MCH bubble caps to protect individual mature spruce trees from attack were promising but not conclusive.

Differences in how these pheromone compounds elute and dissipate into the environment under varying climatic conditions may explain inconsistent results in previous studies. Results from identical testing in the Lower 48 suggest that modifications to the chemical release devices are needed in order to be successful in Alaska's cooler climate. Efforts are underway to develop a basic model that describes field dispersal of bark beetle behavioral chemicals (e.g., MCH) in typical western habitats, under various temperature and wind conditions.

The division plans to continue testing MCH on the Kenai Peninsula during the summer of 1995. Variations in pheromone formulation, bubble cap placement and experimental plot design will be field tested.

Forest Health Initiative

On the Kenai Peninsula, the number one agent affecting forest resources is the spruce bark beetle. Since 1990, the spruce beetle epidemic has grown to unprecedented proportions. According to a 1992 published report, nearly one-half of all forest land on the Kenai Peninsula has been affected by beetles. The infestation has increased substantially in recent years and will likely maintain, if not increase, its magnitude. Because of this extensive beetle-caused mortality, the goals and objectives of the division on the Kenai are directed primarily toward dealing with the health of the forest.

Forests can be considered healthy when there is an appropriate balance between growth and mortality. Having the resilience to react and overcome various stressors is a key indicator of health. In many areas of the peninsula, the mortality caused by the beetles exceeds growth. Forest stands with 80 percent and greater spruce mortality are not uncommon.

Twelve salvage sales, totaling 20 million board feet, will provide over $1 million in direct receipts to the general fund and in reforestation costs on state-owned land.

In order to achieve sustainability, managers must focus on the condition of the forest and work toward maintaining soil productivity, gene conservation, biodiversity, landscape patterns and an array of ecological processes. The natural disturbance regimes provide the basic blueprint for sustaining pattern and process across the landscape. Management practices are sought that reflect (rather than duplicate) these landscape patterns and ecosystem processes.

The division acknowledges that the understanding of ecological processes is continuously refined. Therefore, the strategy of adaptive management is imperative as actions take place on state forest lands. This means that the division uses the best available knowledge to prescribe practices, monitor results and adjust practices as needed to meet objectives.

The division's goals are to:

- maintain the structural and functional integrity of the forest as an ecosystem;
- meet the diverse needs of the human community; and
- commit the technological, financial and human resources needed to reach the goals.

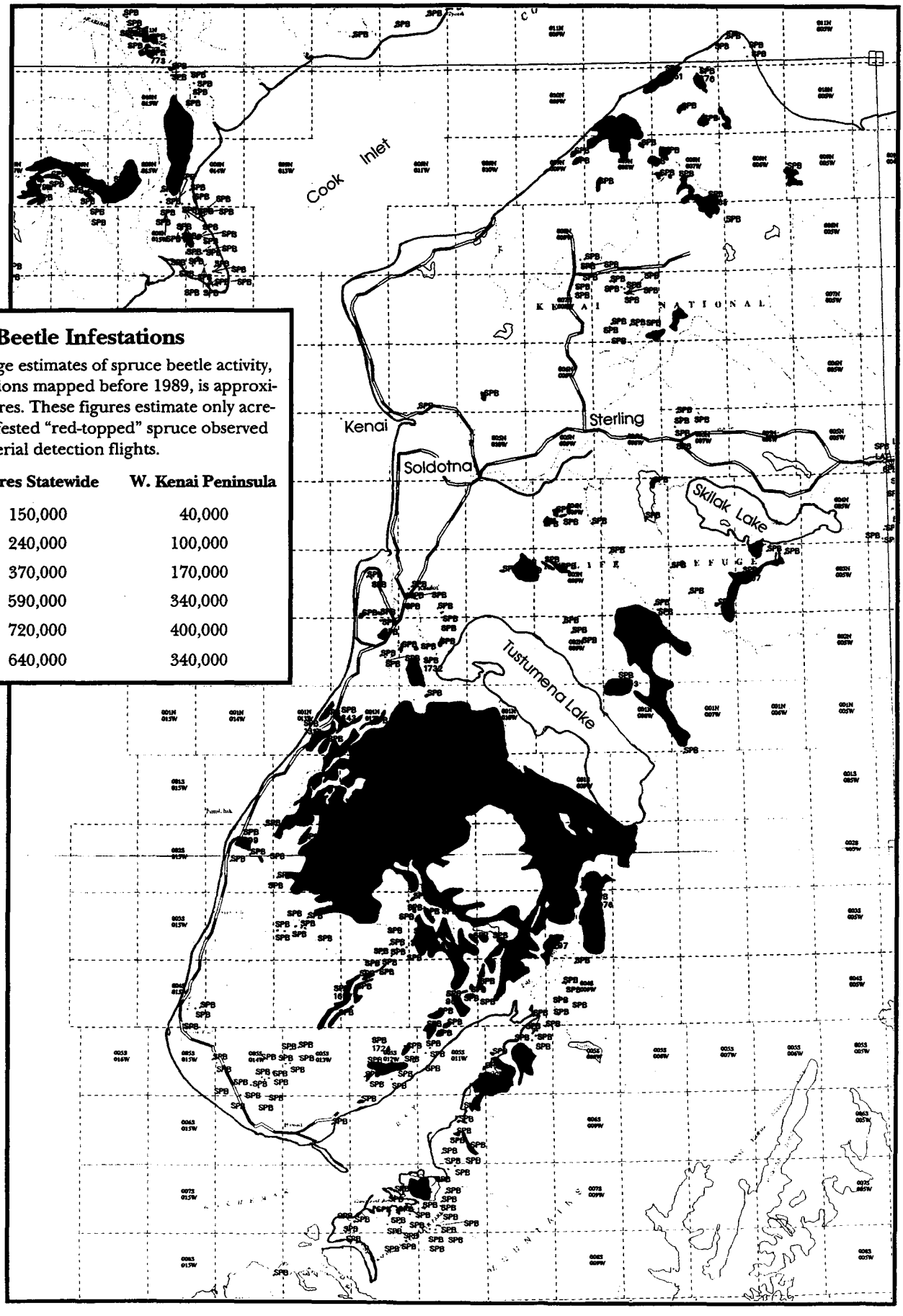
Management actions proposed in the Forest Health Initiative follow the strategy of adaptive management to meet the goals outlined above. Interagency and interdisciplinary cooperation, along with public participation during the decision-making process, is also necessary.

The Forest Health Initiative on the Kenai Peninsula has taken major steps forward in addressing the spruce beetle epidemic. Forestry has led the way in reviewing state lands where the spruce beetle is causing heavy mortality. Forestry staff, along with habitat biologists from the Department of Fish & Game, have conducted on-site field reviews of infested areas to determine appropriate actions. The U.S. Forest Service has made Tom Liebscher available to the Division of Forestry through the Interagency Personnel Act. Tom has provided valuable services to the division by making site-specific silvicultural prescriptions on the Kenai Peninsula.

In situations where the ecosystems have demonstrated that they are not resilient to the infestation, treatment options, consisting primarily of salvage harvest and reforestation, are being proposed to achieve sustainability and maintain biodiversity. Treatment prescriptions include proposals to enhance wildlife habitat for species dependent on early successional forests, while retaining, where possible, late successional forest habitat characteristics. Wildlife linkage zones, or travel corridors, and high value, unique habitats are being maintained. Fish habitat and water quality are being protected through "leave areas" and buffers that exceed those required by law. In addition, strict compliance with the Forest Resources and Practices Act and Regulations will minimize the impacts of building roads. Maintaining traditional recreational uses has also been addressed in the forest land use planning process.

As a result of this concerted effort, twelve salvage sales have been sold for a total volume of approximately 20 million board feet. Stumpage revenue to the state general fund will total $501,317. More importantly, costs paid by the purchaser for reforestation of harvested areas will total $507,914. Together, this provides over one million dollars in direct receipts or in improvements to state-owned land. In addition, the total economic benefits of these sales on the Kenai Peninsula economy is estimated at between $10 million and $16 million.

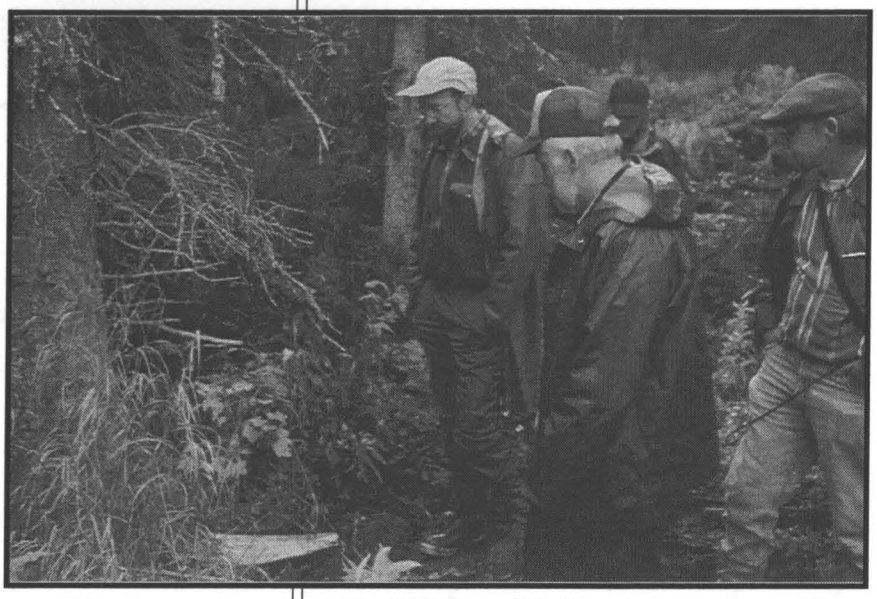
Areas Infested by Spruce Bark Beetles on the Kenai Peninsula



Spruce Bark Beetle Infestations

Cumulative acreage estimates of spruce beetle activity, including infestations mapped before 1989, is approximately 800,000 acres. These figures estimate only acreage of recently infested "red-topped" spruce observed during summer aerial detection flights.

Survey Year	Acres Statewide	W. Kenai Peninsula
1989	150,000	40,000
1990	240,000	100,000
1991	370,000	170,000
1992	590,000	340,000
1993	720,000	400,000
1994	640,000	340,000



Tom Liebscher, a U.S. Forest Service employee working for the Division of Forestry, shows spruce beetle activity and resulting changes occurring in the forest ecosystem to members of the Kenai Peninsula media. (Jim Peterson, Mike Wiedmer)

Southcentral Interagency Forest Ecology Group

Specialists in wildlife biology, forestry, forest entomology, forest health and forest ecology met in Anchorage in December to discuss current and future data needs, and gaps in knowledge in forest management in Southcentral Alaska (the Kenai Peninsula and Mat-Su Valley). The group plans to coordinate management of the Southcentral Alaska forest ecosystem by their respective agencies. Resource managers from Forestry, Fish and Game's Habitat and Wildlife divisions, the U.S. Fish & Wildlife Service, the Chugach National Forest and State & Private Forestry are participating. The group reviewed a draft interagency agreement and began forming objectives to address in ongoing cooperative research and applied forest ecology studies.

Moose Pass Cooperative Forest Health Project

The Division of Forestry initiated the Moose Pass Cooperative Forest Health Project in early 1994 to identify and begin treatments to reduce or mitigate the effects of a spruce bark beetle epidemic near that community. This cooperative project between the state and the U.S. Forest Service (USFS) Chugach National Forest, is funded by the USFS, State & Private Forestry.

The project area covers Moose Pass and areas along Upper and Lower Trail lakes, Kenai Lake, and the Seward Highway from Tern Lake to Lawing (near Seward). The area being considered for treatment totals 12,000 acres. Major landowners are the USFS and the state. The area also includes private lands and parcels managed by the Kenai Peninsula Borough and Mental Health Trust Authority.

A team of agency resource specialists and a working group of community representatives, environmental groups and affected agencies identified issues critical to the preparation of an environmental analysis and treatment alternatives.

The emphasis is on improving forest health and reforesting areas that have been heavily impacted by the beetle. In addition, projects for improving or maintaining fish and wildlife habitat, increasing recreational opportunities and reducing fuel buildup associated with the infestation will be considered.

Completion of the environmental analysis alternatives for federal lands is expected in early 1995. The analysis will also identify actions that could be taken on state, borough and private lands to be addressed during the public and agency review process, which Forestry will continue in 1995. Three salvage sales are in the Five-Year Harvest Schedule and are proposed for offering in 1995.

Cooperative Forestry

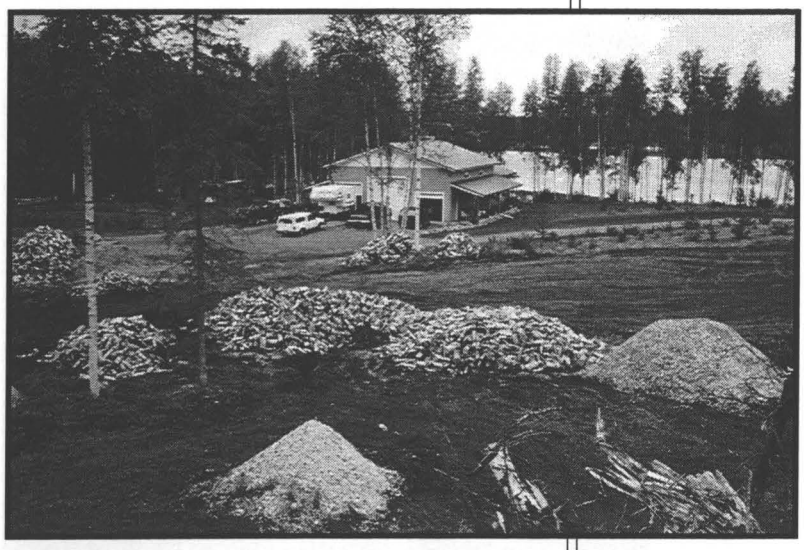
The National Tree Program was initiated in 1991 because of a notable decline in the number and health of trees in communities and on private land in rural areas. The program encourages federal and state governments to work in partnership with local governments, businesses, volunteers and landowners to plant and care for trees and forests in communities and rural areas nationwide.

Healthy, well-managed trees and forests provide many environmental, social and economic benefits including:

- improved air and water quality;
- reduced soil erosion;
- valuable wood products and associated jobs, which strengthen local economies;
- energy conservation provided by summer shade and winter wind protection;
- wildlife habitat and plant diversity;
- recreation and scenic areas that contribute to physical and psychological health;
- improved quality of life in neighborhoods and business districts, which increases community pride and property values.

The Division of Forestry administers two programs that actively support this effort. The Forest Stewardship Program provides tree planting and forest improvement technical and financial assistance to private forest landowners. The Urban & Community Forestry Program supports retaining, planting and caring for trees in communities.

The U.S. Forest Service provides national guidance and funding for these cooperative programs through the State Forester's Office in each state.



A Forest Stewardship Plan encompasses all forest resources and can become a landowner's overall property management plan. Active forest managment may also provide tangible assets such as sawlogs, chips and firewood. (Glenn Holt)

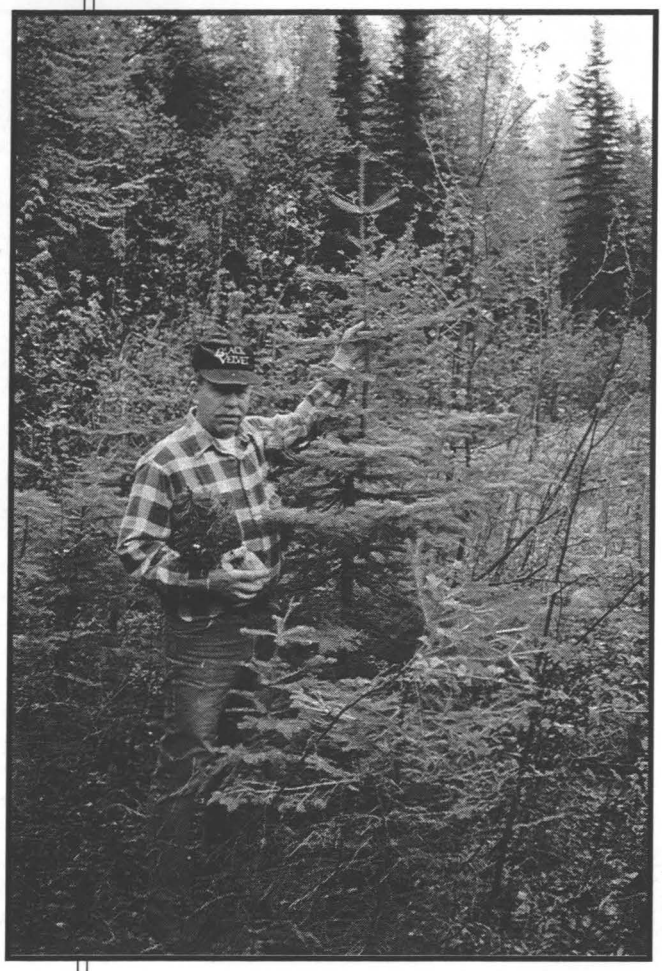
Forest Stewardship Program

The Forest Stewardship program is a federally-funded program administered by the Division of Forestry. The principle goals are to help nonindustrial, private forest owners to develop 10-year forest plans and to support implementation of approved management practices.

A frequent management objective of private forest landowners is protecting their forest from spruce bark beetles. Other common objectives included wildlife habitat improvement and tree planting.

Following are highlights of the Forest Stewardship Program (FSP) for 1994:

- A Stewardship Forester was assigned full-time to the Kenai Peninsula.
- The first National Stewardship Conference was held at the National Arbor Day Foundation conference center in Nebraska City, Nebraska. Alaska's FSP sent two landowners as participants—Alan Kingsbury from Talkeetna and Don Kratzer from Nenana.
- A visit from the president of the National Woodland Owners Association resulted in formation of a private landowners Woodland Interest Group in Alaska.
- Landowner stewardship workshops were held in Wasilla and near Talkeetna.
- The division staffed a FSP booth at the Alaska Federation of Natives conference.
- Presentations were given at the Alaska Agriculture Symposium and the BIA Service Providers Conference.
- A request to authorize cost-share assistance for the use of trap trees for spruce bark beetle control was favorably received by the U.S. Forest Service.



A forest steward who has completed a Stewardship Plan can received a cost-share grant for projects like thinning and pruning to improve the forest stand, reduce bark beetle problems and fire fuel loads. Here, a forest steward checks the growth of trees he planted as seedlings. (Glenn Holt)

Division of Forestry personnel prepared 31 forest stewardship plans, covering 2,189 acres, for individual landowners. Since the program began in 1991, a total of 68 stewardship plans have been written for 5,521 acres. Most participating landowners are located in the Mat-Su Valley, the Tanana Valley and on the Kenai Peninsula.

Financial assistance for management practices is available through the Stewardship Incentive Program (SIP). Nine categories of practices are available, which range from tree planting to recreation and wildlife improvements. In 1994, 14 SIP practices were completed for 96 acres. Thinning, pruning and tree planting are common cost-share practices. SIP payments come from the federal government and are administered by the USDA Agricultural Stabilization and Conservation Service.

In addition to stewardship planning and SIP assistance, stewardship foresters responded to numerous public requests for information. Services included answering questions about tree planting, interviews on call-in radio programs, presentations to schools and inspections for bark beetles and other forest pests.

The Forest Stewardship Program offers planning assistance to Alaska native corporations to develop stewardship plans. A grant is provided to the corporation, which then prepares the plan using either its own staff or a private consultant. Doyon Corporation, with the assistance of Tanana Chiefs Conference, has prepared a detailed Stewardship Plan for its Tanana Management Unit. Grants have also been awarded to four other native corporations to begin stewardship planning. The division will continue to promote forest stewardship and provide assistance to ANCSA corporations in 1995.

The Stewardship Program receives guidance from the Alaska Stewardship Coordinating Committee. The committee, comprised of representatives from a broad range of land use interests, met three times in 1994 for all-day sessions. The division is highly appreciative of the time and effort given by the committee. Forest Stewardship Committee members are listed on page 45.

ALASKA Urban & Community FORESTRY

Urban and community forests consist of the trees, vegetation and other forest resources where people live. The Urban & Community Forestry Program helps local governments and community members expand and care for this valuable resource. The program:

- provides information and training in proper techniques for retaining, planting and caring for community trees;
- supports volunteer efforts to plant and maintain trees;
- helps local governments to develop and fund effective, ongoing community forest management programs;
- encourages the private sector to support and fund community forestry efforts;
- supports research and trials of appropriate tree and shrub varieties in Alaska.

The Alaska Urban & Community Forest Council, a 15-member citizen advisory group, provides support and advice on development and delivery of the program. Members are from all regions of the state and from a variety of professions and fields of interest. A list of members is on page 45.

1994 Highlights

- Alaska became the 50th state to have a **TREE CITY USA** when Eielson Air Force Base was certified by the state forester and the National Arbor Day Foundation.
- Alaska's first Urban and Community Forestry conference was held in Anchorage in April. The event featured lectures by Dr. Alex Shigo, known as the world's foremost tree biologist, and sessions by local experts. Nearly 100 people participated in the conference. In addition, 100 people attended an evening presentation sponsored by the Alaska Botanical Garden. Dr. Shigo also taught a one-day class on pruning trees near utility lines, which was attended by 26 employees of utility companies.
- A Juneau fifth grader won the National Arbor Day poster contest.
- The first urban tree inventory in the state was initiated with a $10,000 grant to the Municipality of Anchorage.
- The first local community forestry group in Alaska organized as Ketchikan Urban Forest, Inc. It has nonprofit status and members are actively working on local projects.
- Staff spoke to community school and master gardener classes, at the Alaska Nursery and Greenhouse conference and at Cooperative Extension Week courses.
- Staff produced and distributed *Community Trees and Forests Source Book: A directory of resources for planting and caring for trees in your community.*

Members of the Alaska Urban & Community Forest Council get hands-on experience in proper tree planting techniques at the Plant Materials Center in Palmer. (Patricia Joyner)

National Arbor Day Poster Contest winner Jennifer Baxter, of Glacier Valley School in Juneau, meets Governor Hickel. Joining Jennifer were (l to r) State Forester Tom Boutin; Senator Suzanne Little and Thom Pence, Urban & Community Forest Council members; Diana Gifford, her teacher; Kriss Gress, her art teacher; Jerry Schoenburger, her principal; Nancy Hakari, her mother; Governor Hickel; Mrs. File her grandmother; Jennifer; Mr. File, her grandfather; Chuck Hakari, her step-father; and her brother Jake.

Community Grants

The division awards federal grants to encourage and support demonstration projects and to develop ongoing community forestry programs. In 1994, a total of $26,365 in Urban and Community Forestry grants were matched by $31,427 in donations and in-kind services from communities. Grants were made to the following:

- Municipality of Anchorage
- Mat-Su Trails Council for the Finger Lake School Nature Trail,
- Glennallen School PTA
- City and Borough of Juneau
- Kenai Peninsula Global ReLeaf
- Ketchikan Urban Forest Group, Inc.
- Colony High School Forest, Mat-Su Borough

The division also administers the Small Business Administration National Tree Planting Grants. A total of $38,327 was awarded to the following communities:

- Alaska Court System, Anchorage
- Mizelle Park, Anchorage
- Grandview Gardens Cultural Center, Anchorage
- City and Borough of Juneau
- Colony High School, Mat-Su Borough
- Weeks Field Community Assn., Fairbanks

These grants will be used to hire small businesses to plant trees on public lands in 1995. Communities matched these grants with $44,087 in donations and in-kind services.

Alaskan Student Wins National Arbor Day Poster Contest

Jennifer Baxter from Glacier Valley School in Juneau won the 1994 National Arbor Day Poster Contest. This was the first year that Alaska participated in this contest held for fifth graders nationwide. Her poster was selected from 34 state winners.

The contest theme was "Trees are Terrific... Up Close and Personal." The curriculum kit, sent to participating classrooms introduced the students to the complexity of forest communities and focused on tree identification, planting the right tree in the right place and the importance of diversity in the urban and rural forest.

Forestry and the Urban & Community Forest Council sponsored the contest, offered prizes and selected the state's winning entry. Jennifer was congratulated by Governor Hickel and State Forester Tom Boutin who presented her with a savings bond and book about trees. She and her mother were guests at the National Arbor Day Foundation Awards banquet in Nebraska City, where Jenny was awarded a $500 savings bond. Her poster is being distributed nationwide as the official Arbor Day poster for 1995.

Eielson Air Force Base Becomes Tree City USA

Eielson Air Force Base became Alaska's first Tree City USA. Alaska had been the only state without a town recognized as a Tree City USA by the National Arbor Day Foundation. The program recognizes communities that effectively manage their public trees.

The standards require an official tree board or department; a community tree ordinance that establishes public policy for tree planting, maintenance and removal; a community forestry annual budget of at least $2 per capita; and an annual Arbor Day observation and proclamation.

Deputy State Forester Dean Brown presented the award to Colonel Ronald E. Keyes, Installation Commander, on April 5 in a ceremony held on the base. Three members of the Alaska Urban & Community Forest Council also attended.

Forestry Outreach

Tanana Valley State Forest Citizens' Advisory Committee

Forestry issues in the Tanana Valley continue to generate public interest. The Tanana Valley State Forest (TVSF) Citizens' Advisory Committee (CAC) was actively involved in these issues throughout the year. The CAC decided at its first meeting in 1994 to hold a minimum of six meetings per year with at least one outside of Fairbanks, in an effort to improve public participation and increase the committee's visibility. The CAC met eight times, including once in Nenana, and sponsored two field trips. Many members of the public attended the meetings and participated by teleconference, as did legislators and members of the Board of Forestry.

Items discussed during the year included logging legislation, insect infestations, the TVSF Management Plan Review, marten habitat concerns, riparian standards, tourism in the forest, FPA enforcement budgets, adding seats to the committee, firewood demand and the Five-Year Timber Sale Schedules for the three area offices associated with the TVSF.

Field trips were the highlights of the year's activities. In June, members and guests visited timber sales and reforestation projects in the Nenana Ridge area. In November, the group toured the Left Fork sale area by dog team to observe recent timber sale operations and changing stand conditions.

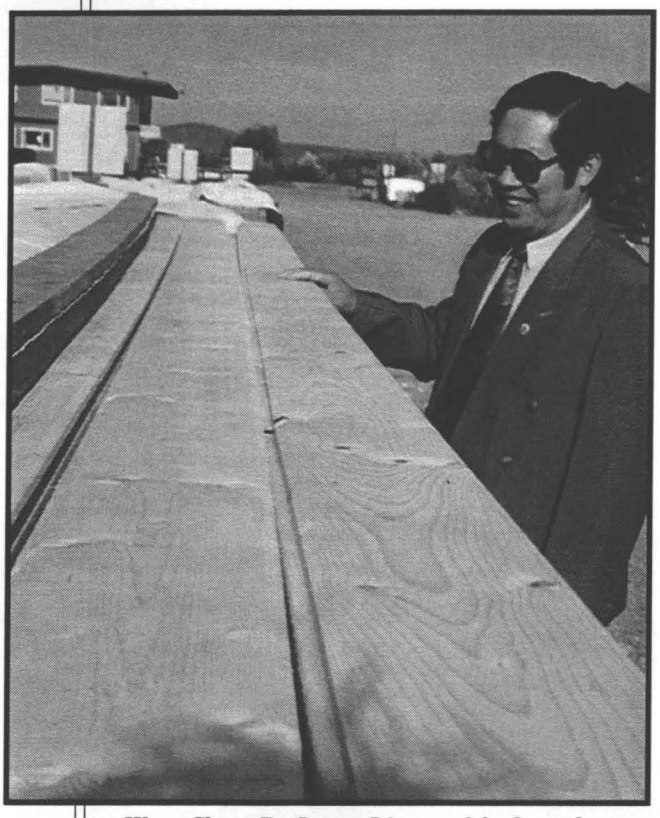
Committee composition shifted as two members resigned and four terms expired at year's end. A record number of applicants volunteered for these positions. The year ended with members looking forward to new appointments by the State Forester and to continuing to advise Forestry on the management plan review. The division is working with members of the CAC, an interagency planning team and public volunteers in informal working groups to develop plan alternatives. Completion of the plan is scheduled for the fall of 1995. A list of committee members is on page 45.

Captain Florence Saunders (right) presents Sitka spruce seedlings to Deputy Director Dean Brown (center) and State Forester Tom Boutin. (Federal Express)

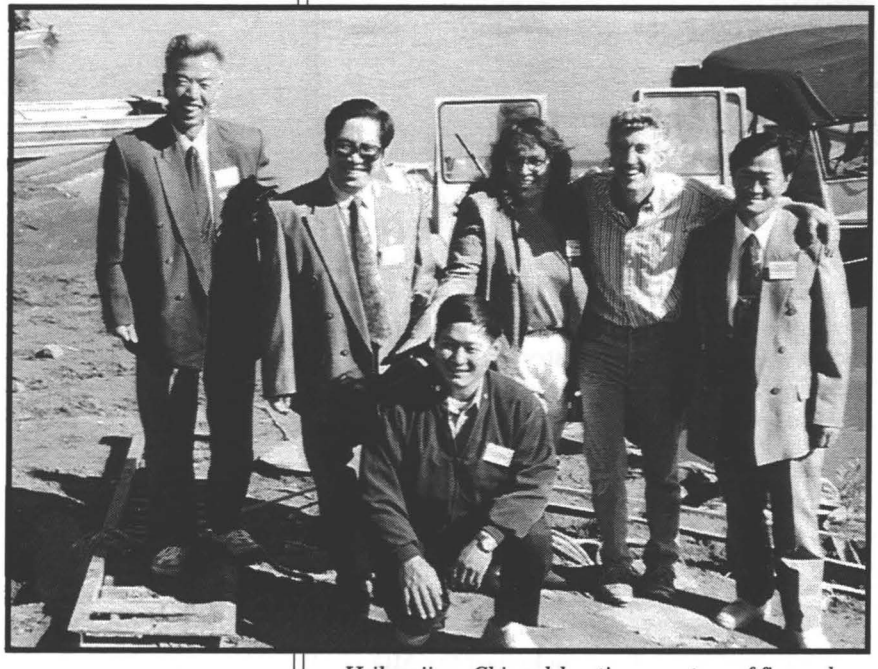
Seedlings Commemorate Amelia Earhart Flight

Alaska was the last state to receive seedlings of its state tree in the fiftieth year celebration of Amelia Earhart's pioneering flight around the world. Sponsored by the 99s, the women's international pilots association, the presentation to the Division of Forestry symbolized "planting a seed for the future" and "breaking new ground."

Federal Express Captain Florence Saunders, the first and only female captain of the largest cargo plane in the world, the MD-11, delivered the seedlings. State Forester (and pilot) Tom Boutin and Deputy State Forester Dean Brown (pilot and 99s member) received the seedlings and toured the cockpit of the MD-11. The Sitka spruce seedlings were planted by Forestry employees and are thriving.



Wang Chang Fu, Deputy Director of the General Bureau of Forest Industry, Heilongjiang Province, China, inspecting lumber at Northland Wood Products in Fairbanks. (Dean Brown)



Heilongjian, China delegation on a tour of fire and timber programs in McGrath. Left to right: Wang Bingshu; Wang Chang Fu, delegation head; Yu Jinglin; Dean Brown; Tom Sheets, proprietor of Takusko House; Chen Chongli. (Bill Beebe)

Chinese Delegations Visit Alaska

The division hosted two forestry delegations from Heilongjiang Province, China in 1994. In early July a technical delegation for wildland fire and forest management toured Forestry operations. The delegation was headed by Wang Chang Fu, Deputy Director of the General Bureau of Forest Industry. Members were Chen Chongli, Director, Longxiang Forest Bureau; Wang Bingshu, Chief, Forest Management, Dailing Forest Bureau; and Yu Jinglin, interpreter. There was an excellent exchange of ideas and technology options. The Chinese are very interested in obtaining fire technology such as converting air tanker planes to retardant planes, and initiating private sector operations, such as the local wooden bowl manufacturing.

A second visit was organized by the Department of Commerce & Economic Development, Office of International Trade on September 26-28. The delegation explored business opportunities and discussed a proposed work plan for the Heilongjiang and Alaska Forest Economy, Trade and Technology Cooperation Commission.

The group included three officials of the provincial forestry bureau and a representative from the provincial Office of Foreign Affairs, who served as interpreter for the group. Their itinerary included a tour of the Kenai Peninsula to look at and discuss forest pest and timber management issues, and a meeting with the state forester, DCED Commissioner and Northern Forum representatives. In addition, the group attended evening banquets hosted by Koncor Forest Products and the Chinese Community of Anchorage.

Partnership to Coordinate Forest Research

Foresters from several agencies began meeting in 1993 to discuss the need for a partnership to fund and direct forestry research and to provide for sustainable ecosystem management of the forests in interior and southcentral Alaska. The discussion was prompted by cutbacks in funds for research at the state and federal levels. It was also encouraged by Senator Stevens who asked for a unified proposal for funding from those interested in forestry research.

This led to the development, in 1994, of a Memorandum of Agreement (MOA) by several agencies, including the Division of Forestry, U.S. Forest Service, University of Alaska and the Tanana Chiefs Conference. The MOA described the partnership and its benefits, and funding needs and options. Senator Stevens responded to the MOA by submitting a request for $7.5 million to the Senate Finance Committee.

Members of the partnership held a two-day meeting in Fairbanks in December to clarify goals and prioritize research needs. The group is developing a forest management manual that will synthesize forestry research and field management guidelines. Members are seeking funding for the manual and have applied for a grant from the Alaska Science and Technology Foundation. The grant would allow work to begin on the first three chapters, which will cover forest regeneration methods, transportation guidelines and forest pest management. The partnership is being chaired by Earl Stephens, who is also chair of the Alaska Reforestation Council.

Project Learning Tree

Since its introduction in the early 1970s, Project Learning Tree has been one of the most widely used environmental education programs in the United States. Hands-on, interdisciplinary activities help students investigate environmental issues and encourage them to make informed, responsible decisions based on knowledge about our complex environment.

PLT focuses on developing critical and creative thinking skills. The program does not try to teach children **what** to think about the environment; rather, it offers tools to help them learn **how** to think about the environment. Both local and global issues are covered; activities deal with land, air and water, as well as trees and forests. The curriculum seeks to instill in students the confidence and commitment to take responsible action on behalf of the environment.

PLT is used in all 50 states and U.S. territories, Canada, Japan, Mexico, Sweden, Finland and Brazil. Each year about 60,000 educators in the U.S. alone attend workshops to learn how to use the program with young people. In some states PLT activities are correlated to the state science or environmental education standards. There are also correlations between PLT activities and some science texts, and with scouting activities.

During 1994, facilitators in Alaska introduced 209 teachers, youth group leaders and resource professionals to the revised pre-kindergarten through grade eight activity guide. Thirty leaders either attended a training session or participated in on-the-job training by facilitating workshops. Twenty-one workshops were held in 11 Alaskan communities. Foresters from the U.S. Forest Service and the Alaska Cooperative Extension presented a number of the workshops, in addition to those led by division staff. The other sponsors of PLT in Alaska are the Department of Education and the Alaska Forest Association.

PLT ALASKA

GOALS:

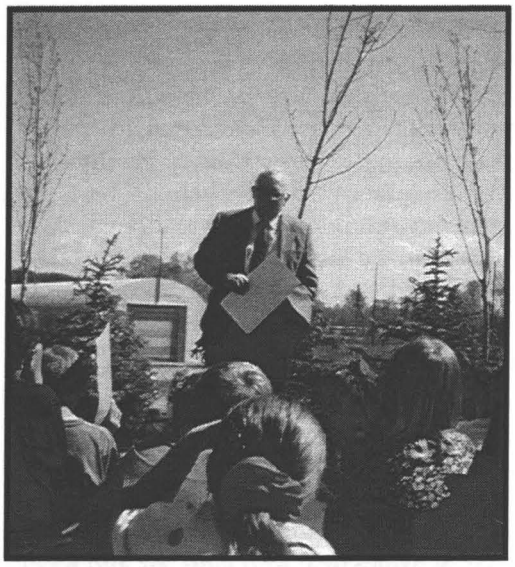
CREATE awareness, appreciation, understanding, skills and commitment to address local and global environmental issues.

PROVIDE a framework for students to apply scientific processes and higher order thinking skills to resolve environmental problems.

INCREASE appreciation and tolerance of diverse viewpoints on environmental issues by developing attitudes and actions based on analysis and evaluation of available information.

STIMULATE creativity, originality, and flexibility to resolve environmental problems and issues.

ENCOURAGE students to become responsible, productive and participating members of society.



Kenai Peninsula Borough Mayor Don Gilman celebrating Arbor Day at a tree planting ceremony at the borough building. A grant from the Urban & Community Forestry Program provided the trees. (Ole Andersson)

Deputy Director of Forestry Martha Welbourn (second from left) speaks at an Arbor Day celebration at the Alaska Aviation Heritage Museum in Anchorage. The event was sponsored by the Alaska Native Plant Society. (Scott Christy)

Arbor Day Celebrations

Alaska celebrates Arbor Day on the third Monday in May. This year, ceremonies and tree planting celebrations took place across the state, including the following:

• Ten communities or schools received Urban & Community Forestry (UCF) grants for planting trees. The schools were Colony Middle School in Palmer, Denali and Susitna elementary schools in Anchorage, Girdwood and Skagway elementary schools, and Woodriver Elementary in Fairbanks. The cities of Kaltag, Klawock, North Pole and Whittier also received grants.

• Mat-Su Area forest technicians and the stewardship forester held a three-hour Arbor Day program on Saturday at Landscape Supply. The foresters answered questions and provided information on tree planting to people who had participated in Landscape Supply's tree swap program, swapping their old Christmas tree for two seedlings. Landscape Supply provided 700 seedlings for the event. Smokey Bear also attended and gave away fire prevention materials.

• Forestry, the Alaska Native Plant Society and the Alaska Aviation Heritage Museum held a tree planting ceremony at the museum. The tree was the first of several to be planted in a cooperative effort to display and interpret native plants for visitors to the museum on the shores of Lake Hood in Anchorage.

• The Urban & Community Forestry Coordinator spoke at the Anchorage Mayor's Arbor Day Ceremony at Government Hill School.

• The Haines Area Forester attended a celebration in Skagway and presented an award to the second place winner in Alaska's Arbor Day Poster Contest. He also gave Sitka spruce seedlings to the students.

• In Soldotna, trees purchased with an Urban & Community Forestry grant were planted at the Kenai Peninsula Borough building in an event organized by Global ReLeaf. Elementary students participated in the ceremony and were given a seedling to plant at home.

• Forestry staff in Fairbanks participated in several tree planting celebrations at parks, schools and on the UAF campus. Students and local officials were on hand to discuss the history of Arbor Day and tree care.

• Wasilla held a ceremony on May 21 to kick off its large tree planting project along the Parks Highway, paid for by a Small Business Administration grant.

Educational Programs for Students

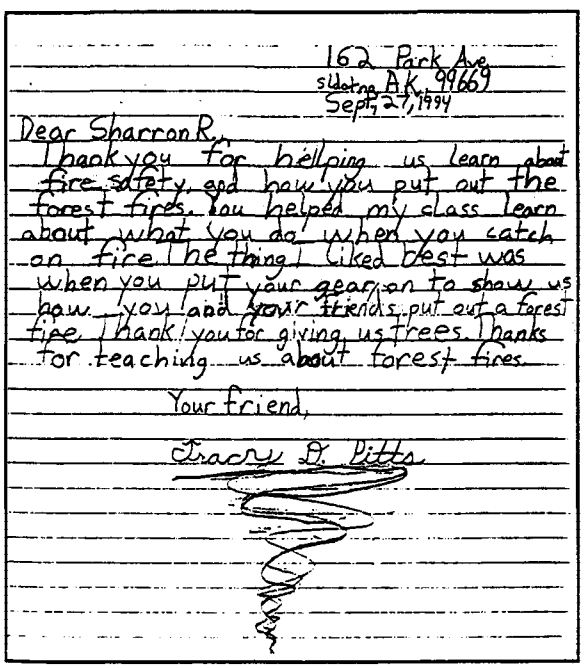
The Division of Forestry provided many educational programs and presentations for students this year, including the following:

- Anchorage/Mat-Su Area staff participated in the Girl Scouts Mat-Su Roundup for 74 girls aged 8 to 16, and made a presentation at Birchwood Elementary School for 92 kindergarten through third grade students.
- Students from the McGrath School visited the Southwest Area Forestry Office for Career Day. The visit allowed students to see the work place and talk to staff about the variety of job opportunities available in the field of forestry.
- In Juneau, the state forester taught mapping and forestry concepts to 75 Juneau third graders on an over night camp-out at the Echo Cove Bible Camp.
- Fairbanks foresters demonstrated forestry practices at Fairbanks Outdoor Days, a resource-oriented field day sponsored each spring by several resource agencies. The demand for this program has grown in recent years and is now offered at three schools on different days. It reached about 800 sixth grade students this year.
- Delta Area Forestry staff held two outdoor classrooms for 150 seventh and fourth graders. The students were divided into groups and given tree measuring equipment. They then went into the woods and, with the help of a forestry technician, measured heights and diameters and to determine tree age and volume of their forestry plot.
- In September, two third grade classes from Soldotna Elementary School visited the Kenai/Kodiak Area Office in Soldotna. Wade Wahrenbrock and Sharon Kilbourn-Roesch served as guides for the students, parent chaperones and teachers.

Wade showed them the arboretum where a variety of trees from around the world are being tested for hardiness. He also showed them a tree killed by spruce bark beetles and a larva and adult beetle preserved in alcohol. A boring tool helped the students discover the age of a tree without cutting it down.

Sharon talked to the students about the weather station, which keeps track of moisture in the air and groundcover, helping firefighters determine when fire danger is high. She also discussed outdoor fire safety and demonstrated fire fighting equipment.

The students and teachers expressed their appreciation for the tour by sending Forestry a packet of letters, some of which are included on this page.

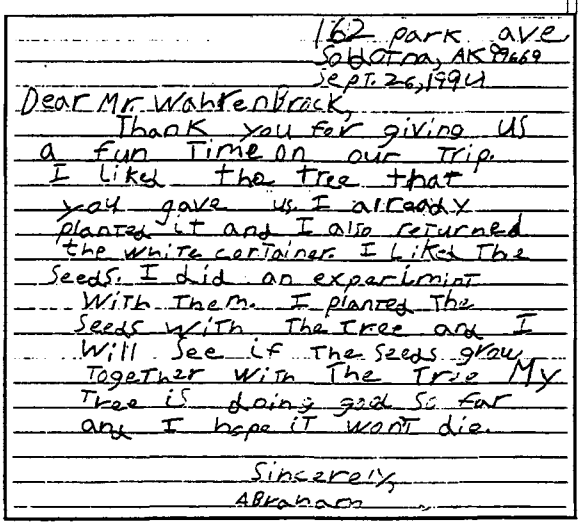


162 Park Ave
Soldotna AK 99669
Sept. 27, 1994

Dear SharronR,
Thank you for hellping us learn about fire safety. and how you put out the forest fires. You helped my class learn about what you do when you catch on fire. The thing I liked best was when you put your gear on to show us how you and your friends put out a forest fire. Thank! you for giving us trees. Thanks for teaching us about forest fires.

Your friend,

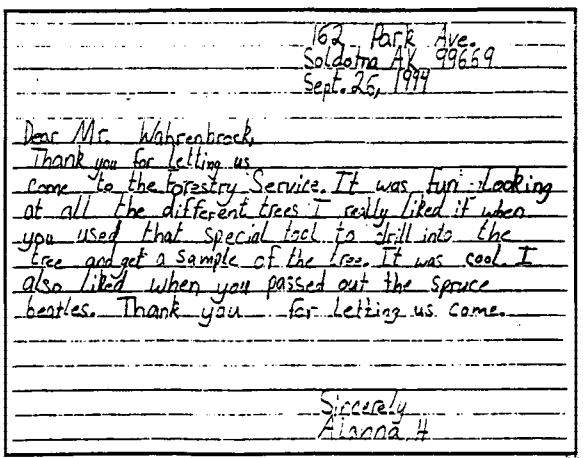
Tracy D. Pitts



162 park ave
Soldotna, AK 99669
Sept. 26, 1994

Dear Mr. Wahrenbrack,
Thank you for giving us a fun Time on our Trip. I liked the Tree that you gave us. I already planted it and I also returned the white container. I liked the Seeds. I did an experiment With them. I planted the Seeds with the Tree and I Will See if the Seeds grow Together With the Tree. My Tree is doing good So far and I hope it wont die.

Sincerely,
Abranam



162 Park Ave.
Soldotna AK 99669
Sept. 26, 1994

Dear Mr. Wahrenbrock,
Thank you for letting us come to the forestry Service. It was fun looking at all the different trees I really liked it when you used that special tool to drill into the tree and get a sample of the tree. It was cool I also liked when you passed out the Spruce beetles. Thank you for letting us come.

Sincerely
Alanna H.

Forest Resources & Practices

The Division of Forestry administers the Forest Resources and Practices Act (FPA) by reviewing notifications of timber harvest, conducting forest inspections, encouraging compliance, and taking appropriate enforcement action when necessary. An important aspect of the program is educating forest landowners, harvest operators and the public about requirements of the act and responsible forest practices.

The forest practices notification and review process is not the typical permitting process in which a permit is required before an activity is begun. Rather, timber operators submit harvesting plans (notifications) to the Division of Forestry for review. The division then coordinates review of notifications with the departments of Environmental Conservation (DEC) and Fish and Game (DF&G). When the review is completed (within 30 days after notification) the operator may begin harvest operations. Operators generally submit notifications well in advance of when they anticipate beginning operations.

Some operations receive more than one field inspection due to the location or relative importance of the site. At times, areas for which notifications have been submitted are not harvested within the one-year notification period. These areas require a renewal notice the following year before operations begin.

FPA Compliance and Enforcement

Accomplishments in 1994 ranged from standard review of FPA notifications to the initiation of a state-funded research program and adoption of procedures for variations and decision elevations.

Routine implementation: The number of notifications and renewals for plans of operation, and the acreage under notification in the Coastal Region declined somewhat in 1994. Notifications and renewals in that region comprise about 95 percent of the statewide activity. However, activity in the interior is increasing and acreage under notification rose to 18 percent of the statewide total.

In the few cases where additional action is needed, directives are used to resolve compliance problems. Only six directives were issued on 255 notifications and renewals, a sharp decline from previous years and an indication of the high level of voluntary compliance. Once a directive is issued most operators quickly rectify the problems identified.

Procedures adopted: DNR and DF&G jointly developed procedures for reviewing variation requests and elevations of FPA decisions. The procedures are designed to prevent delays to operators while ensuring a thorough review of controversial decisions. The procedures were signed by the division director in August and will be reviewed in 1995.

Material site regulations: DNR adopted regulations (11 AAC 97) governing operation of material sites in connection with forestry activities. Regulations were also adopted that avoid duplicative requirements under the FPA and Mining Reclamation Act.

Variations and elevations: The number of variation requests was similar to the number in 1993 but the number of trees requested decreased by one-third. Only two elevations (appeals of field decisions to a higher level of authority) occurred. In the first, concerning removal of three hazard trees at Cube Cove, the division director confirmed that the trees were hazardous and removal was proper. The second elevation concerned ten trees along Beach River on Montague Island. DNR and DF&G disagreed on whether the trees could be removed without causing significant harm to fish habitat and water quality. Following the director-level elevation nine trees were approved for harvest and one was denied. The commissioner confirmed the director's decision.

FPA forester hired: Bruce Johnson was hired as the FPA Forester in Juneau early in the year. He bolstered the division staff available for field inspections, coordinated development and review of the FPA research program and organized training for Coastal Region staff involved in FPA implementation.

Forest Resources & Practices Act Administrative Activities on Private Land

	Harvest Plan Notifications			Harvest Plan Renewals			Active Harvest Acreage			Number of Inspections			Number of Variations		
Coastal Region	1992	1993	1994	1992	1993	1994	1992	1993	1994	1992	1993	1994	1992	1993	1994
Ketchikan	71	118	114	31	54	27	21,002	23,427	26,466	102	84	94	26	24	20
Juneau	46	27	10	5	3	5	16,969	5,342	6,572	32	14	25	11	15	14
Haines	0	8	0	0	0	1	0	824	100	0	8	1	0	0	0
Anc/Mat-Su	20	22	38	13	17	10	9,455	9,727	20,405	37	32	32	1	2	5
Kenai/Kod	25	33	24	7	9	13	33,453	41,879	9,781	25	44	53	0	3	2
Reg. Total	**162**	**208**	**186**	**56**	**83**	**56**	**80,879**	**81,199**	**63,324**	**196**	**182**	**205**	**38**	**44**	**41**
Interior Region															
Fairbanks	1	1	1	0	0	0	322	227	23	2	2	1	0	0	0
Delta	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tok	1	3	3	0	1	3	1,125	4,351	9,637	3	1	3	0	0	0
Copper Rv	2	0	5	0	0	1	3,625	0	4,077	1	0	8	0	0	0
McGrath	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Reg. Total	**4**	**4**	**9**	**0**	**1**	**4**	**5,072**	**4,578**	**13,737**	**6**	**3**	**12**	**0**	**0**	**0**
State Total	**166**	**212**	**195**	**56**	**84**	**60**	**85,951**	**85,777**	**77,061**	**202**	**185**	**217**	**38**	**44**	**41**

	Number of Trees Reviewed			Insects: Acres Reviewed			Regeneration: Acres Reviewed			FPA Violation Admin. Actions		
Coastal Region	1992	1993	1994	1992	1993	1994	1992	1993	1994	1992	1993	1994
Ketchikan	727	926	605	0	0	0	0	0	0	6	7	2
Juneau	617	2,655	1,055	0	0	0	0	0	0	0	0	1
Haines	0	0	0	0	0	0	0	0	0	0	0	0
Anc/Mat-Su	7	9	364	0	0	0	320	640	0	1	2	1
Kenai/Kod	0	406	618	1,850	2,800	2,450	800	650	900	2	4	3
Reg. Total	**1,351**	**3,996**	**2,642**	**1,850**	**2,800**	**2,450**	**1,120**	**1,290**	**900**	**9**	**13**	**7**
Interior Region												
Fairbanks	0	0	0	0	0	0	0	0	0	0	0	0
Delta	0	0	0	0	0	0	0	0	0	0	0	0
Tok	0	0	0	0	0	0	0	0	0	0	0	1
Copper Rv	0	0	0	0	0	0	0	0	0	0	0	1
McGrath	0	0	0	0	0	0	0	0	0	0	0	0
Reg. Total	0	0	0	0	0	0	0	0	0	0	0	2
State Total	**1,351**	**3,996**	**2,642**	**1,850**	**2,800**	**2,450**	**1,120**	**1,290**	**900**	**9**	**13**	**9**

Foresters measure the depth of a pool during the Michaels Creek study on Shee Atika land at Cube Cove on Admiralty Island. Riparian vegetation was retained in this area, which had been harvested. (Bruce Johnson)

Best Management Practices Protect Water Quality

Monitoring the impacts of forest activities on water quality and protected water uses is an important aspect of meeting state water quality standards. The state controls nonpoint source pollution related to forest activities under the Federal Water Pollution Control Act through Best Management Practices (BMP). These are contained in the regulations implementing the 1990 revisions to the FPA. During 1994, the division monitored operator compliance with BMPs by conducting a total of 205 inspections of forest operations in the Coastal Region.

The 1994 legislature approved $266,200 in capital funds for FPA research and monitoring of BPM implementation and effectiveness. Nine research projects on buffer stability and stream monitoring have been identified for funding in the Coastal and Northern regions. Field activity on these projects will begin in 1995.

Two voluntary monitoring projects funded by the forest industry continued in 1994. The first is an assessment of the fish habitat and channel conditions of forested streams. This was the third year that Pentec Environmental, Inc. has surveyed streams to provide this assessment to Sealaska Corporation and the Alaska Forest Association. This project's objective is to identify monitoring parameters for habitat conditions that can be quantitatively evaluated and are objective and repeatable.

The other monitoring project is being done for Atikon, Inc. Its purpose is to gather baseline data to use in monitoring the effect of selective logging within a streamside riparian zone on water quality and downstream biological conditions.

Alaska Board of Forestry

The nine-member Board of Forestry advises the state on forestry issues and regulations. Board members, who serve three-year terms, are appointed by the governor to represent a wide range of interests and to bring a broad perspective to forestry issues.

The first Board of Forestry meeting of 1994 was in Juneau on March 16. The agenda included an explanation of the board's responsibilities under the Forest Resources and Practices Act (FPA), AS 41.17.047. These responsibilities include holding at least three meetings annually—one each in southeast, southcentral and interior Alaska. The board is also required to submit an annual report to the governor and legislature on the effectiveness of the FPA, its regulations, needed changes, research and monitoring. The report contains information from Forestry and the departments of Fish and Game (DF&G) and Environmental Conservation (DEC).

Division of Governmental Coordination representatives spoke on how the FPA applies to federal timber sales. Sealaska Corporation Vice President Rick Harris and Gary Gunstrom of the Alaska Working Group on Cooperative Forestry/Fisheries Research spoke about research and monitoring.

The board adopted a motion, based on the reports provided, stating that the FPA is accomplishing its intended purpose of perpetuating and protecting Alaska's forest resources and protecting water quality and salmon habitat from the impacts of timber harvesting. The board did not recommend any changes to the act. The board did recommend that the resource agencies that enforce the act be adequately funded to maintain a strong field presence and to monitor the effectiveness of Best Management Practices contained in FPA regulations.

The second board meeting was held in Anchorage on September 23, to coincide with the 1994 Convention of the Society of American Foresters and the Canadian Institute of Forestry. Key topics discussed were forest practices research, hazard trees and reforestation. Edward McHenry of Copper Country Alliance spoke on native corporation timber sales in the lower Copper River basin and wildlife habitat enhancement potential. The Alaska Department of Fish and Game provided information on the Endangered Species Act as it relates to the Queen Charlotte goshawk and Alexander Archipelago gray wolf.

The board held its third meeting in Fairbanks on December 9, to coincide with the Tanana Valley State Forest Citizens Advisory Committee meeting. The board received reports from the Habitat Division of DF&G and the Environmental Quality Division of DEC. The Division of Forestry reported on the Cape Suckling/Cape Yakataga Agreement, the upcoming requirement for regeneration compliance surveys on private land, and the Mental Health Trust Land settlement.

Members passed a motion recommending that Forestry, DF&G and DEC develop a joint budget proposal to fund agency FPA staff at 1991 levels and to provide funds for monitoring, education and research programs.

In July, the Governor's Office on Boards and Commissions reappointed board members Steve Planchon and Bill Thomas to the environmental and commercial fishermen seats, respectively. Steve Planchon, however, resigned in December when he accepted the position of Executive Director of the Mental Health Trust Unit for DNR. A list of board members is on page 45.

Fire Management

Wildland fire suppression in Alaska is the responsibility of the Division of Forestry, the Bureau of Land Management's Alaska Fire Service and the U.S. Forest Service. Each agency protects specific geographic areas under cooperative agreements. Without these agreements the state would need to spend an estimated additional seven million dollars each year to provide comparable protection for state land.

Alaska is the only state with an interagency fire plan. The plan classifies the state's land base into fire protection levels based on major natural fire breaks and the objectives of land managers. This allows firefighters to be sent to the highest priority areas, those where communities and valuable resources are located. It also gives options for lower cost strategies in remote and unsettled areas.

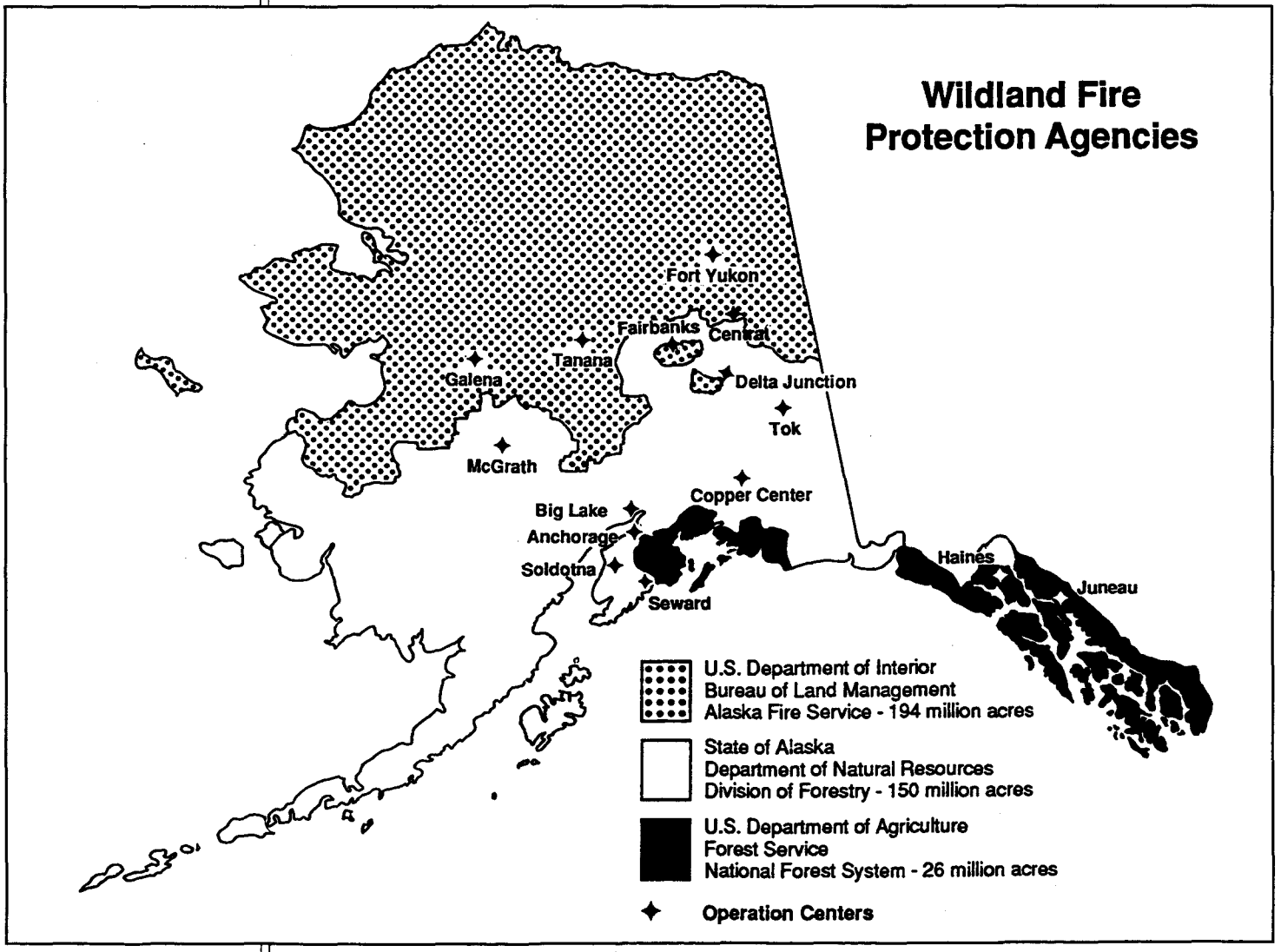
Fire Protection Levels

Critical Protection: Areas where life and property are present receive immediate and aggressive suppression efforts.

Full Protection: Areas with high value resources where fire may adversely impact resource management objectives also receive immediate suppression efforts.

Modified Action: Areas with high value resources where land managers may consider the trade-off of acres burned versus suppression costs. Fires are attacked immediately but land managers guide the suppression effort.

Limited Action: Areas where fire is beneficial or benign, or fire fighting costs are greater than fire damage. Fires are monitored but no suppression action is taken except to prevent the fire from burning onto higher value land.



1994 Fire Season

A total of 643 fires burned 265,722 acres in 1994. The Division of Forestry experienced a higher than normal number of fires but the number of acres burned was below normal.

Weather patterns were normal for most of Alaska and the fire activity reflected the weather conditions. The eastern interior, Mat-Su Valley and Kenai Peninsula remained dry due to a series of weak high pressure ridges that persisted through mid-September. Except for the Hajdukovich Creek fire near Delta, initial attack was able to control all fires within these areas.

The fire season began early with the first fire reported on March 19 on Kodiak Island. This 200-acre fire was started by children and was fought by initial attack personnel from the Kenai/Kodiak Area Office and the U.S. Coast Guard. The U.S. Forest Service reported the season's second fire on March 20 in the Tongass National Forest.

By the end of May a total of 155 fires had burned 1,420 acres statewide. The Fairbanks area was the most active with 43 acres burned by 69 wildfires. There were 24 fires in the Kenai/Kodiak area and 27 in the Mat-Su in April and May. The remaining 33 fires were scattered through the rest of the state.

Fire occurrences increased during June and July. Suppression forces were stretched to the limit by 322 fires on 238,000 acres. Forestry and the Alaska Fire Service brought in 56 overhead personnel and 27 smoke jumpers from the Lower 48 to assist in initial attack.

On June 13, a lightning-caused fire in the Southwest Area near McGrath resulted in the season's first project fire. The division initiated an aggressive initial attack with air tankers, helitack crews and smoke jumpers. High temperatures and the low moisture in fuels allowed the fire to burn more than 1,000 acres of forest an hour. All personnel were evacuated to safe areas and a Class II overhead team was ordered on June 14. The fire burned aggressively for several weeks and was not contained until September 22. It burned more than 43,000 acres on multiple ownerships, including 22,800 acres of state land, 8,100 acres of BLM land and 12,300 acres of Native corporation land.

In mid-June a dry lightning storm in the Delta area touched off a blaze that would become one of the most difficult fires to control in Alaska's history—the Hajdukovich Creek fire. Forestry deployed helitack crews, air tankers and smoke jumpers. Dozers and all-terrain vehicles were also used since the fire was accessible by road. By the end of the first shift the fire had escaped initial attack grown to 1,400 acres, necessitating the call for a Class II team. Because hazardous materials left from military chemical warfare testing were suspected to be within the fire boundaries, firefighters could not work in the area. Control efforts were very difficult because of safety concerns. On October 4, the fire was contained at 22,400 acres, burning 10,500 acres of state land and 11,900 acres of military land.

Nearly 25,000 acres were burned in August by 112 new fires. The AFS Upper Yukon Zone had 13 fires that burned more than 10,000 acres. Over 13,400 acres were burned by 31 fires on state protected land in the Tok, Copper River and Kenai/Kodiak areas.

The division remained busy in September with 34 new fires, mostly in the Copper River area. In October eight fires burned just over 1,000 acres. An escaped agricultural burn near Delta accounted for most of this acreage.

The Division of Forestry had a total of 446 wildfires covering 90,827 acres on land under its protection—69 percent of the total wildfires and 34 percent of the acres burned in Alaska. Lightning-caused fires accounted for 94 percent of the acres burned, but larger numbers of fires were caused by campfires, land clearing, debris burning and various slash disposal activities.

The Alaska Fire Service had a total of 151 wildfires on 174,882 acres of land under its protection. This accounted for 24 percent of the total wildfires and 66 percent of the acres burned in the state. Lightning was responsible for 91 percent of the fires and 99 percent of the acres burned.

The U.S. Forest Service had 46 wildfires on 13 acres of land under its protection—seven percent of the total wildfires and less than one percent of the acres burned in Alaska. Campfires accounted for 74 percent of the wildfires and 84 percent of the acres burned.

1994 statistics

Fires by protection area:

Division of Forestry	69%
Alaska Fire Service	24%
U.S. Forest Service	7%

Human-caused fires by protection area:

Division of Forestry	84%
Alaska Fire Service	9%
U.S. Forest Service	100%

1994 Fire Statistics

Fires statewide: 643

Acres burned: 265,721.6

Fire Activity by Landowner

Landowner	Number	Acres
State	122	52,960.3
Borough/City	30	6.5
Private	242	1,127.8
Bureau of Land Mgmt.	75	93,675.4
National Park Service	15	10,331.6
Fish & Wildlife Service	59	74,879.5
Bureau of Indian Affairs	4	410.2
Native Claims Act Lands	55	20,393.2
Military	7	11,914.2
Forest Service	34	22.9
Total	**643**	**265,721.6**

1994 Fires by Cause on State Protected Land

Cause	Number	Acres
Lightning	73	85,274.1
Smoking	24	16.3
Campfires	85	4,126.6
Trash/debris	28	64.6
Land clearing	75	1,059.2
Children	50	206.5
Fireworks	22	11.1
Equipment use	12	11.8
Incendiary/arson	16	7.1
Structures	18	3.5
Other	43	46.0
Total	**446**	**90,826.8**

Emergency Firefighter Wages

Year	State	Federal	Total
1986	$2,515,750	$2,832,208	$5,347,958
1986[1]	561,770	—	561,770
1987	646,674	5,352,799	5,999,473
1987[2]	643,932	—	643,932
1988	4,474,107	5,146,861	9,620,968
1988[3]	907,865	—	907,865
1989	1,805,955	2,276,175	4,082,130
1990	7,398,211	5,765,547	13,163,758
1991	5,344,384	3,741,521	9,085,905
1992	786,747	612,048	1,398,795
1993	3,699,629	580,866	4,280,495
1994	5,952,942	3,654,245	9,607,187
Total	**$39,427,047**	**$39,824,203**	**$79,251,250**

[1] Special appropriation due to Fair Labor Standards Act.

[2] U.S. Dept. of Labor ruling required payment at time-and-one-half when week exceeded 40 hours. Amount shown was paid in 1990.

[3] U.S. Dept. of Labor ruling required payment at time-and-one-half when week exceeded 40 hours. Amount shown was paid in 1991.

Emergency Out-of-State Crew Use

Number of 20-person crews sent outside of Alaska to fight fires.*

Year	Crews
1985	39
1986	22
1987	59
1988	54
1989	61
1990	7
1991	0
1992	5
1993	0
1994	83

*Wages are paid by other states or suppression agencies.

1994 Fires by Area and Protection Level

State Protected Areas

Area	Critical		Full		Modified		Limited		Total	
	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres
Tok	13	3.0	17	192.4	3	9,260.3	11	10,349.0	44	19,804.7
Delta	19	54.6	12	4,416.4	0	7,143.0	0	0	31	11,614.0
Fairbanks	119	37.9	7	20.0	0	0	4	485.0	130	542.9
Val/Copper River	6	0.6	17	24.8	2	0.4	4	465.7	29	491.5
Anch/Mat-Su	85	25.1	8	7.6	2	3.5	0	0	95	36.2
Kenai/Kodiak	51	210.0	8	2.1	5	3.7	5	3,602.2	69	3,818.0
Southwest	0	0	10	43,430.8	13	802.9	18	10,272.0	41	54,505.7
Haines	0	0	3	0.5	3	1.3	1	12.0	7	13.8
Totals	**293**	**331.2**	**82**	**48,094.6**	**28**	**17,215.1**	**43**	**25,185.9**	**446**	**90,826.8**

U.S. Forest Service Protected Areas

Area	Critical		Full		Modified		Limited		Total	
	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres
Totals	**11**	**1.7**	**15**	**2.1**	**11**	**4.1**	**9**	**4.8**	**46**	**12.7**

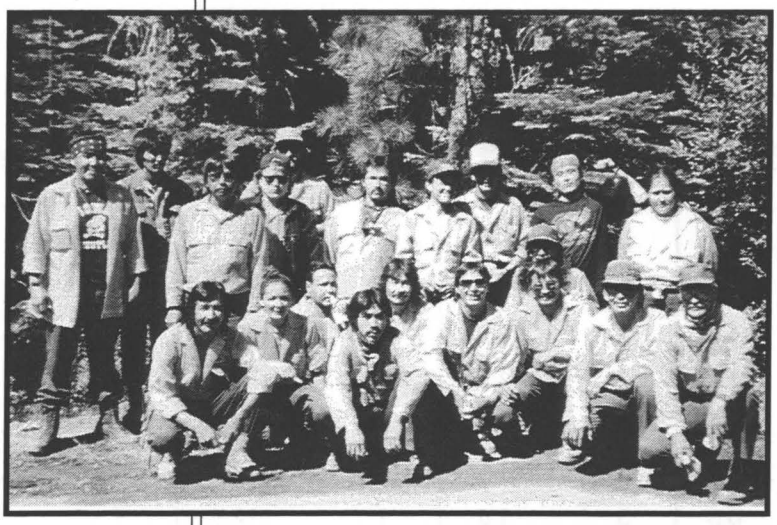
BLM Alaska Fire Service Protected Areas

Area	Critical		Full		Modified		Limited		Unplanned		Total	
	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres
Galena	0	0	15	86.7	25	8,169.9	23	44,439.4	0	0	63	52,696.0
Tanana	1	0.1	10	71.0	7	8,874.2	19	40,807.2	2	11,905.5	39	61,658.0
Up. Yukon	1	0.1	10	1,090.8	11	9,627.3	22	49,804.5	5	5.4	49	60,528.1
Totals	**2**	**0.2**	**35**	**1,248.5**	**43**	**26,671.4**	**64**	**135,051.1**	**7**	**11,910.9**	**151**	**174,882.1**

Statewide Totals by Protection Level

Critical		Full		Modified		Limited		Unplanned		Total	
No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres
306	333.1	132	49,345.2	82	43,890.6	116	160,241.8	7	11,910.9	643	265,721.6

Alaska Emergency Firefighter Crews



Nondalton Crew (Andy Alexandrou)

Sleetmute Crew (Andy Alexandrou)

Upper Kalskag Crew (Andy Alexandrou)

Alaska Assists Lower 48

The National Interagency Coordination Center (NICC) in Boise, Idaho first requested resources from Alaska in late June to fight fires in the western states. By July 15, the Division of Forestry had 20 dispatchers and aviation personnel working in Arizona, Colorado, New Mexico and Utah.

As the hot weather moved into the Pacific Northwest, so did the fire activity and NICC continued to request assistance. As personnel completed their 21-day assignments and returned to Alaska, the division authorized sending additional personnel to Washington, Oregon and California. Orders for crews began arriving on July 25, and between July 26 and July 30 Alaska sent 53 Type II Emergency Fire Fighting (EFF) crews to the Pacific Northwest. An additional 25 EFF crews went to Idaho and Montana during August. The division provided 119 personnel to Idaho, Montana, Wyoming, Washington and Oregon during August and September.

All costs of assistance were paid by the federal government, which brought substantial income to rural village crews.

The division also provided fire fighting supplies worth more than $1 million, and pumps, chain saws and radios worth over $250,000, from its warehouse. This is the sixth year of the past eight that the division has sent supplies and equipment to the Lower 48.

Resources provided to the Lower 48 by the Division of Forestry:

Overhead personnel	147
Type II village crews (20 people)	29
Type I hot shot crews (20 people)	1
Air tankers	2
Helicopters	1

Resources provided to the Lower 48 by Alaska combined agencies:*

Overhead personnel	498
Type II village crews (20 people)	82
Type I crew (20 people)	1
Hot shot crews (20 people)	2
Air tankers	4
Helicopters	6
Smoke jumper airplanes	3
Lead planes	2

* Division of Forestry, BLM's Alaska Fire Service, U.S. Forest Service, National Park Service, Bureau of Indian Affairs, U.S. Fish & Wildlife Service, National Weather Service

Koyukuk Flood Assistance

On September 4, the Division of Forestry was asked to organize the logistics and field operations to support Koyukuk flood relief efforts. The division responded with over $1 million in equipment and supplies, and over 200 personnel with expertise in incident management, field operations, warehousing, logistics, procurement, finance and aviation.

The flood was declared a state disaster by the governor and a national disaster by the president. The systems set up by the division were later used by two out-of-state Type I Incident Management Teams and the private contractor H.C. Price in continuing relief efforts.

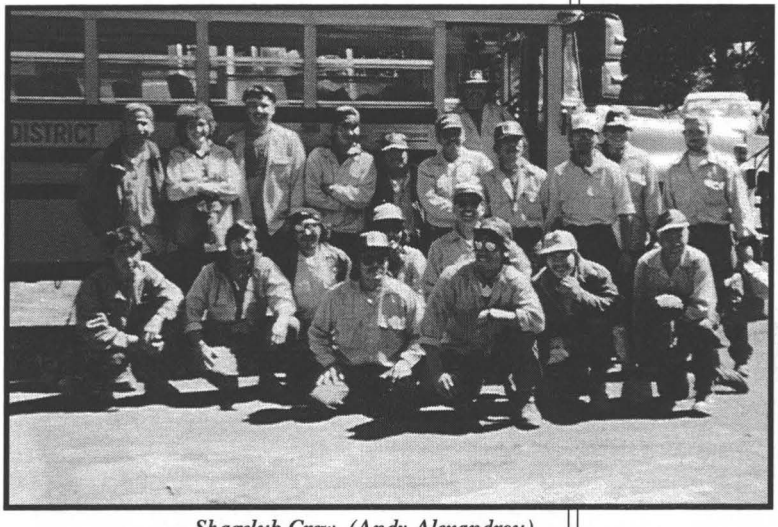
FEPP Review

Access to the Federal Excess Personal Property Program (FEPP) provides extensive equipment to Alaska for use in wildland fire fighting. Forestry has participated in this program since 1971 and has acquired $2.3 million of federal excess equipment for the fire program. Although Alaska does not own the property, the savings to the state equal the value of the property. The U.S. Forest Service is encouraging greater participation in the program because of the closure and reduction of military bases.

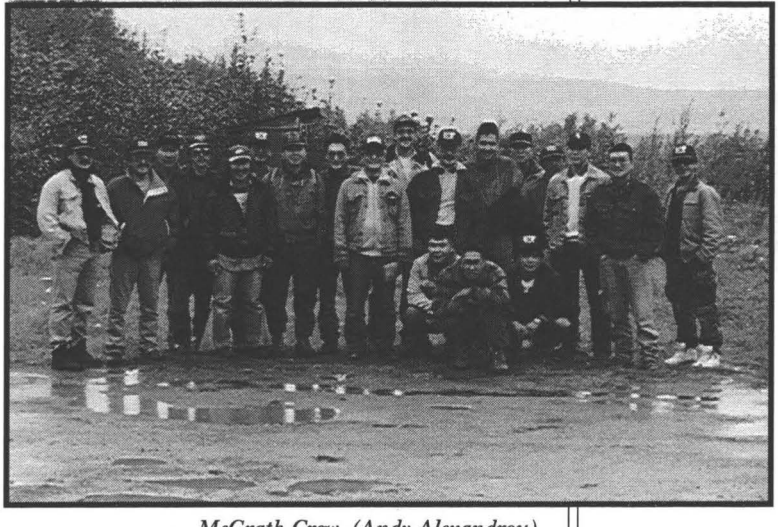
Francis Russ, the federal program administrator from Washington, D.C. and Larry Bowman of the Olympic National Forest, spent a week in July touring Forestry facilities and examining the FEPP program. Francis provided training and program assistance to area foresters, fire management officers and warehouse personnel. The reviewers commended Forestry on the program and offered specific recommendations for further improvement. This gave Forestry an excellent opportunity to discuss program direction and advance specific issues for resolution.

Alaska Emergency Firefighter Crews

Lower Kalskag Crew (Andy Alexandrou)



Shageluk Crew (Andy Alexandrou)



McGrath Crew (Andy Alexandrou)

Fire Prevention and Protection

Smokey's 50th Anniversary

Fifty years ago when our national forests were in a crisis, Smokey Bear became a national symbol with his message of "Only **You** Can Prevent Forest Fires." His message got through. Today, Smokey Bear is an internationally recognized symbol that is vital to the preservation of one of our nation's most valuable resources, our forests.

To celebrate Smokey Bear's continuing dedication as a guardian of the forest and his 50th anniversary, the Division of Forestry and the U.S. Forest Service, State and Private Forestry, sponsored "Smokey and the Iditarod." Jeff King, winner of the 1993 Iditarod and race record holder, championed Smokey's message. Jeff is the fire chief of the McKinley Volunteer Fire Department and fire prevention is a cause he strongly supports.

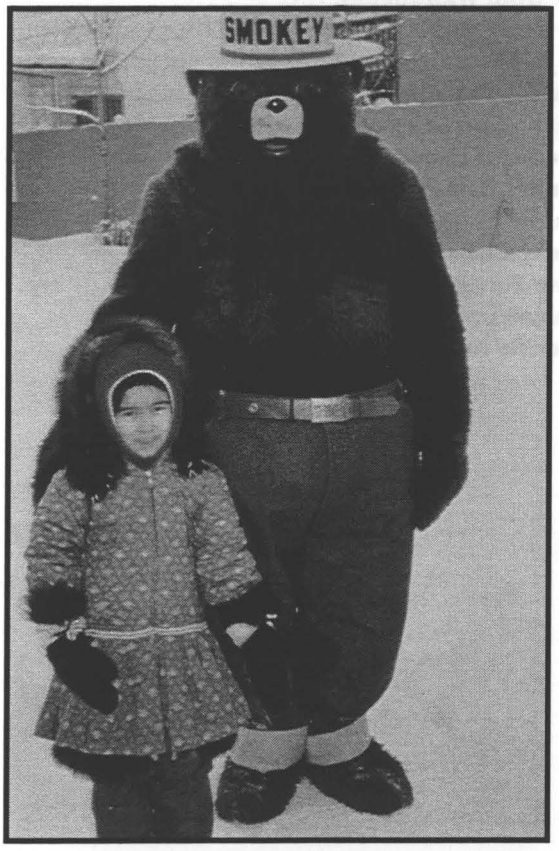
Another statewide event that occurred during the celebration was the National Council of State Garden Clubs' Smokey Bear poster contest. State winners came from Mountain Village, Two Moon Bay and Wasilla. Smokey also participated in the Yukon Quest, Fur Rendezvous, Special Olympics, state fairs and school programs throughout the state during this year-long celebration of his fiftieth birthday.

School Fire Prevention Programs

Forestry made an all-out effort in May to educate school children about the importance of fire prevention, capitalizing on Smokey Bear's 50th birthday.

- Fairbanks staff made presentations at 53 schools, to more than 7,000 students in kindergarten through third grade. Each student was given a white spruce seedling to plant.
- In Delta, 70 students toured the Forestry office, saw a movie about Smokey Bear and heard a fire prevention talk.
- Smokey and friends took the fire prevention message to 1,000 elementary students in 14 schools on the Kenai Peninsula. Four groups also visited Forestry's Kenai office, where they learned about outdoor fire safety and inspected a fire engine.
- Kenai/Kodiak Area foresters sent packets to 130 teachers in 12 schools with information on the increase in child-caused fires and posters with the "Don't Play with Fire" message.
- Kindergarten through 6th grade students on the Kenai Peninsula participated in a poster contest with a theme of "Keeping Kenai Green for Future Generations."

Smokey Bear (Rich Abramson, Kenai/Kodiak Area) celebrates his 50th birthday with second graders at Sears Elementary School in Kenai. (Sharon K. Roesch)



(right) Smokey and a friend in Fairbanks for the beginning of the Yukon Quest Sled Dog Race. Smokey visited many towns throughout the state in 1994 to celebrate his fiftieth birthday. (Bud Rotroff)

Grants For Rural Communities

The Division of Forestry awards and administers Rural Community Fire Protection (RCFP) grants from the U.S. Forest Service. Volunteer fire departments serving communities with populations under 10,000 may apply for grants of up to $5,000 on a 50/50 cost share basis. Grants may be used to organize, train and equip local fire departments.

The division received 44 applications requesting a total of $156,096. It approved 20 grants to fund training and to purchase pumps, radios, protective clothing, fire extinguishers, smoke detectors, fire tools and other supplies. Nine of the grantees had never before received an RCFP grant.

In addition to the grants, the division issued fire stores and equipment valued at over $150,000 to volunteer fire departments.

Fire Department	Grant Amount
Brevig Mission	$5,000
Moose Pass	3,817
Kenai	3,875
Skagway	2,500
Edna Bay	2,285
Upper Kalskag	5,000
Alakanuk	3,000
St. Paul	5,000
Egegik	5,000
Newhalen	2,852
Cantwell	600
Rural Deltana	5,000
Ouzinkie	5,000
Woman's Bay	3,312
Seward	5,000
Metlakatla	3,640
Unalaska	4,717
Butte	5,000
Big Lake	5,000
Houston	1,402
TOTAL	**$77,000**

Sharon Kilbourn-Roesch and Smokey Bear (Don Anderson) of the Kenai/ Kodiak Area Office present a certificate to Dagnall Tracey for reporting a wildfire. (Sharon K. Roesch)

Canadian Forest Fire Danger Rating System

The Division of Forestry adopted the Canadian Forest Fire Danger Rating System (CFFDRS) in 1990 to replace the National Fire Danger Rating System (NFDRS). The Canadian system more closely follows the Alaskan fire regime than does the NFDRS, which was developed for Lower 48 fire conditions. The CFFDRS is used by fire managers to predict fire danger and behavior potential from a statewide perspective.

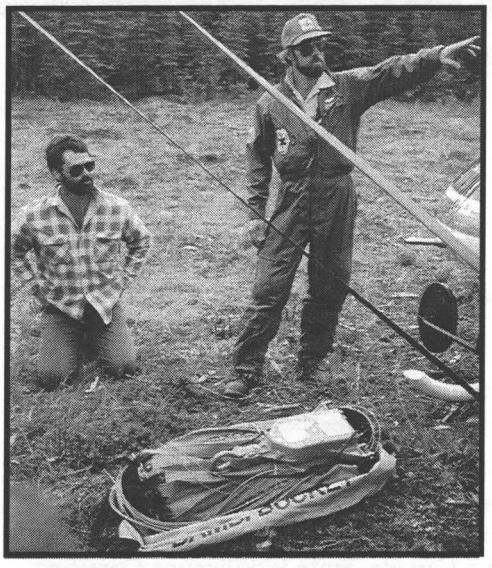
The division has received assistance in implementing CFFDRS from Canadian fire researchers. In response to an invitation from Forestry Canada, State Intelligence Coordinator Frank Cole and Tok Area Dispatch Coordinator Ray Kraemer attended a 30-day training program on the CFFDRS in Alberta, British Columbia, Northwest Territories and Yukon Territory in October. While in Canada, Frank and Ray became familiar with all aspects of the CFFDRS, from computer modeling to observing actual fires in several locations. The experience gained will enhance the division's use of CFFDRS and expedite final implementation of the program.

Prudent decisions by fire managers, supported by the CFFDRS, can mean the difference between a routine initial attack fire and a costly project fire. A U.S. Forest Service grant funded the division's participation in this training.

Alaska Participates in Interagency Air Attack Effort

During the 1994 fire season, the Division of Forestry became fully operational in the interagency air attack pool and contributed to suppression efforts both in Alaska and in the Lower 48. Forestry's contribution to the interagency pool included two air tankers, one lead plane, one pilot and one air tactical group supervisor.

Accomplishments for 1994 included 75 hours of flight time on lead planes directing retardant drops on 18 fires; 340 hours of flight time for the two air tankers, in Alaska and on assignment in Idaho, Oregon and Utah; and 53,000 gallons of retardant and water pumped from air tanker bases in Palmer, McGrath, Delta and Tanacross. Forestry's lead plane pilot received National Lead Plane Pilot Certification during assignments in New Mexico and California.



Vean Noble watches as Dale Anderegg leads interagency instruction on the use of the bambi bucket, which is used to carry water under a helicopter. Both work in the Kenai/Kodiak Area Office. (Judith Reese)

Fire Prevention Analysis

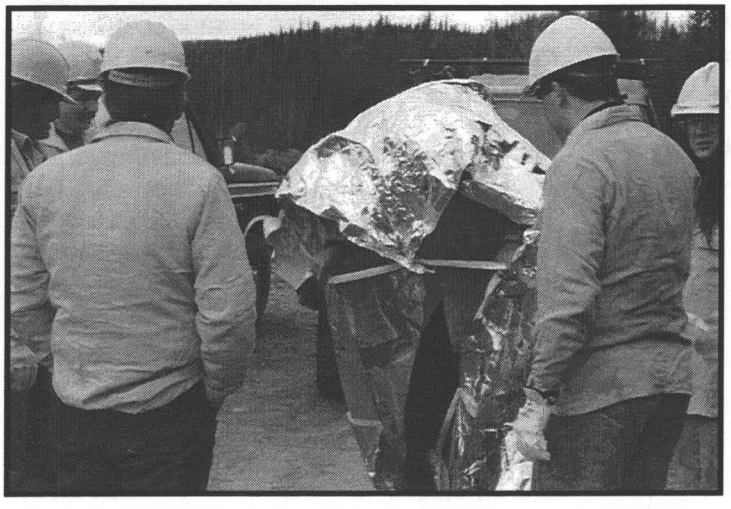
The Division of Forestry is leading the way in interagency fire prevention planning by initiating a statewide analysis of the risk, hazard and values of lands protected by the division. The U.S. Forest Service and Alaska Fire Service are following suit, and the plan, patterned after the National Park Service (NPS) fire prevention assessment and planning process, will be finalized in April, 1995.

Area offices participated by developing action plans for specific prevention activities on state protected lands such as informational signs, issuing burn permits, school presentations and outdoor weeks. Land managers will review the completed effort and pursue funding for the activities identified in the plan. It will be the division's first measurable, results oriented, interagency process for fire prevention.

The NPS in Boise, Idaho is providing training to complete the analysis. A prevention analysis planning course, the equivalent of Ignition Management, will be offered in Alaska this spring to teach the methodology behind the analysis process. The division would not have been able to complete this effort without the help of the NPS.

An advantage of the analysis is the ease with which it can be managed and updated. The plan will be used to obtain funding and organize the prevention work load. It is map-based, using GIS technology, which makes it graphic and easy to explain.

The statewide fire prevention analysis has the potential for greatly reducing suppression costs. The division's fire operations staff anticipates that other states will follow Alaska's example and use a similar approach to prevention planning.



Emergency firefighters learn fire safety and practice using a fire shelter at the Kenai/Kodiak Area Office. (Judith Reese)

Training

Alaska Hosts International Forestry Conference

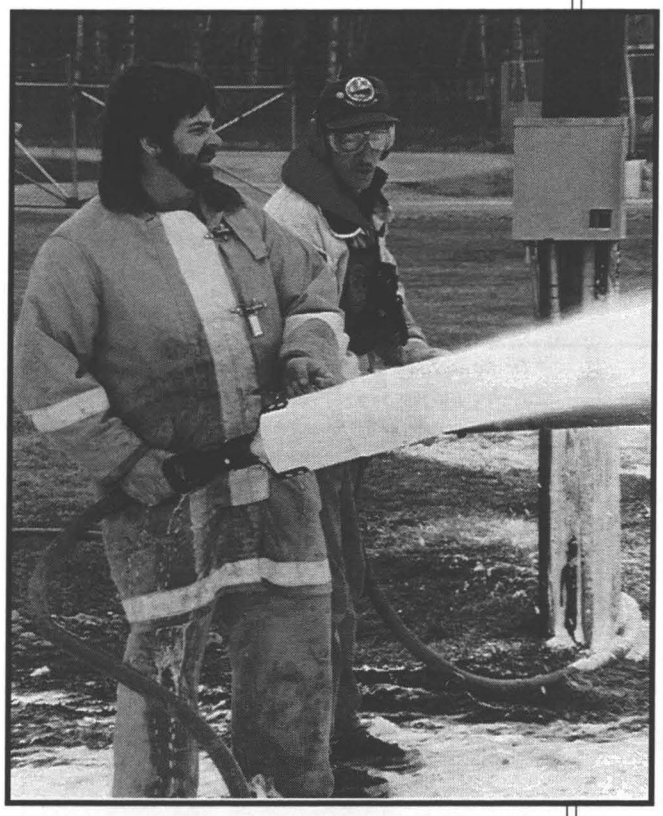
The Alaska Society of American Foresters hosted the joint annual meeting of the Society of American Foresters and the Canadian Institute of Forestry in September. Professional forest managers from more than 60 countries were among the 1,700 participants at the week-long event in Anchorage. Field trips before and after the conference provided attendees a glimpse of resource-related activities in interior, southcentral and southeast Alaska.

This was the first national annual meeting of the Society of American Foresters to be held in Alaska. It allowed staff access to professionals from many parts of the world. The theme, "Managing Forest to Meet Peoples' Needs," was timely and the speakers were excellent.

The Division of Forestry played a significant role in hosting the conference, along with other resource management agencies and the private sector. Division staff were very involved in arranging field trips and making presentations to the visiting foresters. The division sponsored a booth that focused on forest health, G.I.S. applications, forest products and cooperative programs. It also participated in a second interagency booth featuring the fire management program, which is truly unique in Alaska because of the vast acreage and ownership patterns.

Radio equipment on loan from the division allowed coordinators to handle the organizational problems that occur at events of this size, and provided a margin of safety during the field trips. Social and recreational activities such as an early morning fun run were also successful due to division staff efforts.

Although this was not a Division of Forestry function, the participation by the staff was an integral part of the convention's success. All who participated can be rightfully proud of the outcome and their efforts.



Daryl Schierholt (left) of the Kenny Lake Volunteer Fire Department, and George Coyle of the Big Lake Area Office, practice applying foam at Alaska's first Engine and Hydraulics Management class held in Palmer in the spring of 1994. (Cindy Forrest-Elkins)

Engine and Hydraulics Management

After Forestry staff participated in the Region 6 Engine Academy in Redmond, Oregon, they conducted the division's first Engine and Hydraulics Management courses in Palmer and Fairbanks, incorporating information learned in the academy.

The primary purpose of this course is to allow the division and cooperator fire departments to share strategy, technology and tactics on use of engines to protect structures from wildland fires. Several field stations were used to give participants as much hands-on experience as possible. Forestry and cooperator fire department personnel worked side by side in simulated wildland-urban interface settings. Field stations included structure protection, fire extinguishers, foam and hydrants. The division has high expectations for this course and hopes, with further development, to conduct its own Engine Academy.

Training in 1994*

Type	Courses	Participants	Instructors
Emergency firefighter	10	296	33
Wildfire for fire departments	17	262	32
Initial attack	16	250	19
Extended attack	2	8	1
Fire management	37	278	6
First aid and safety	9	97	1
Project Learning Tree	21	209	30
Human resource develop.	6	88	3
Totals	**118**	**1,488**	**125**

** Chart includes training sponsored by the division and training attended by division personnel. It includes Emergency Firefighter crews and participants from other agencies and cooperator fire departments.*

Ron Hebert, EFF Ramp Manager in Fairbanks, with a Beaver provided to the division through the Federal Excess Personal Property Program. (Dean Brown)

Jim Lewandoski, North Zone Fire Management Officer, with contracted pilot, Andrew Emde of Larry's Air Service. (Dean Brown)

Working Effectively with Boards and Committees

Nine Forestry employees and three members of the Alaska Urban & Community Forest Advisory Council attended an intensive three-day workshop sponsored by the U.S. Forest Service in December. The workshop was entitled "Building Capacity for Cooperative Action: Enhancing the Effectiveness of Networks, Coalitions, Boards, and Committees." It provided useful and practical methods for working more efficiently and effectively with the many public and professional committees, councils and boards with which Forestry interacts. Attendees were from Anchorage, Fairbanks, Juneau and Ketchikan.

Cooperator Fire Departments

The Division of Forestry trained 17 cooperator fire departments in the Wildland Interface Fire Fighter Course in 1994. This course was developed in partnership with wildland and structural fire service agencies who saw a need to prepare all firefighters, both wildland and structural, to work together in the wildland-urban interface. In the past year, the division saw a 400 percent increase in this type of training offered to cooperator fire departments, a positive step in developing fruitful and cooperative efforts.

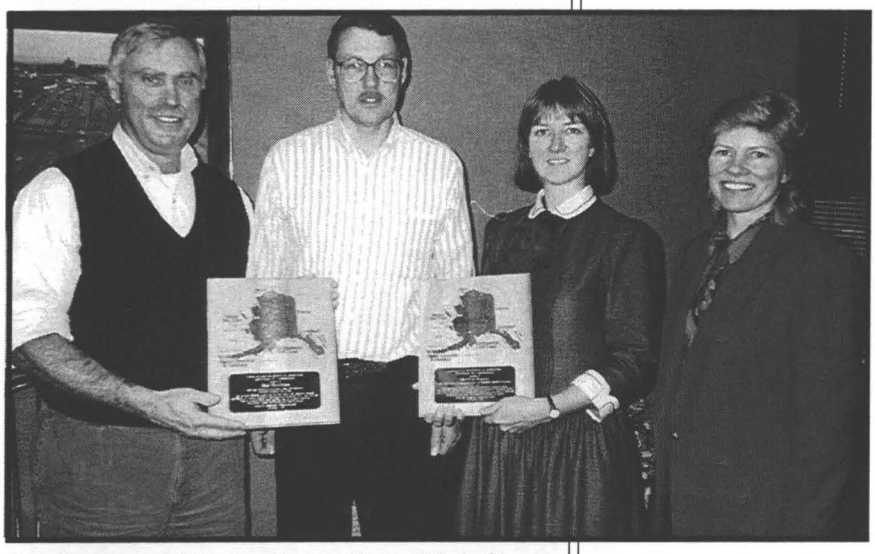
Aviation Management and Safety

The Division of Forestry, in cooperation with the U.S. Forest Service and the Office of Aircraft Services in Boise, Idaho, sponsored the first Interagency Aviation Management and Safety course held in Alaska. This course, once offered only at the National Advanced Resource Technology Center in Marana, Arizona, is now available for regional presentation. This unique opportunity provided state and federal aviation managers from state, regional and area levels the opportunity to become more knowledgeable about aviation safety, procurement of aviation services, planning projects using aviation assets, and accident/incident reporting procedures. The practical information presented helped aviation managers with the management of daily operations. Broad attendance was encouraged, which resulted in 52 staff from state and federal agencies statewide attending.

Staff Recognition

Dan Ketchum and Patricia Joyner Recognized by U.S. Forest Service

Chad Converse of the U.S. Forest Service, presented plaques from State and Private Forestry Director Paul Forward to Urban & Community Forestry Program staff Dan Ketchum and Patricia Joyner. The presentation was made at the Alaska Urban & Community Forest Council meeting in November. Dan and Patricia were commended for accomplishments in 1994, which included holding Alaska's first statewide urban & community forestry conference, an Alaskan student winning the national Arbor Day poster contest, Eielson Air Force Base becoming Alaska's first Tree City U.S.A., work with communities and production of publications and materials that increased awareness of urban and community forestry in Alaska.



Dan Ketchum and Patricia Joyner, Alaska Urban & Community Forestry Program coordinators, receive plaques from Chad Converse of the U.S. Forest Service, State and Private Forestry. Linda Cyra-Korsgaard, Chair of the Alaska Urban & Community Forest Council is on the right. (Dean Brown)

Frenchie Malotte, First Alaskan to Chair Northwest Fire Council

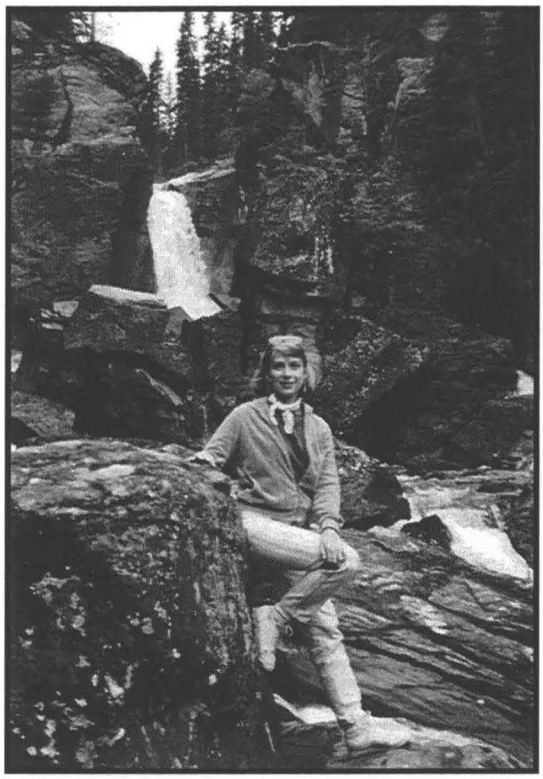
Chief of Fire Management Frenchie Malotte was elected chairman of the Northwest Fire Council for 1995 in November. The council comprises representatives from Alaska, British Columbia, Oregon, Washington and the Yukon Territory. It meets annually and serves as a clearing house for wildland fire management and research information. The 1995 meeting will be held in Alaska and co-hosted by the Division of Forestry, the U.S. Forest Service and the Bureau of Land Management.

Frenchie Malotte (right) Forestry's Fire Chief, discusses strategy on the Hajdukovich Fire with Les Fortune (center) Interior Regional Forester, and Al Edgren, Delta Area Forester. (Dean Brown)

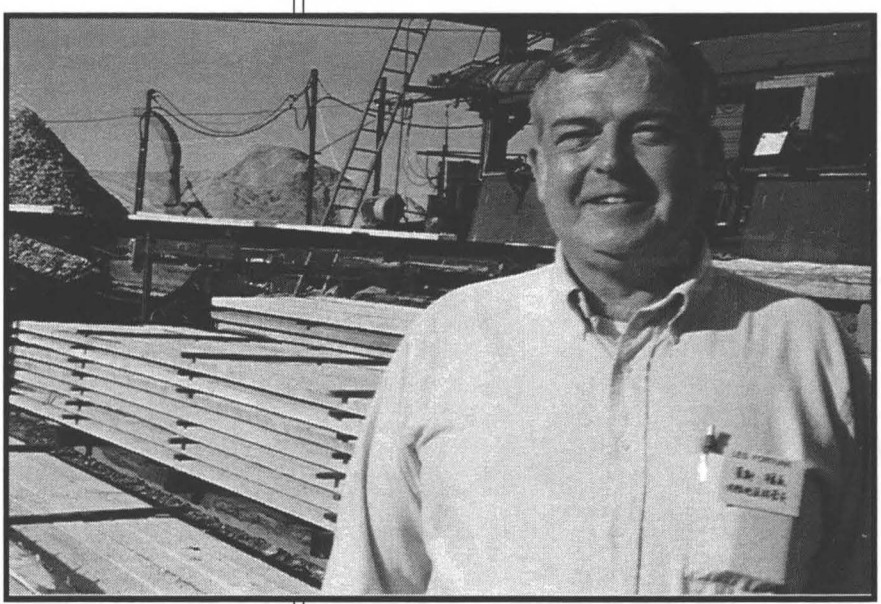
Pete Buenau Commended by U.S. Forest Service

Fairbanks Area Forester Pete Buenau was commended by the U.S. Forest Service's Fire and Aviation Management Director for his participation in the National Study of Type I/ II Helicopters to Support Large Fire Suppression. The Division of Forestry was thanked for making Pete available for the study.

Pete assisted in analyzing information and developing models to assess possible economic efficiencies when using type II helicopters on large fires in Alaska. The U.S. Forest Service stated that without Pete's participation and knowledge of Alaska, the report would not have been of such outstanding quality. The U.S. Forest Service has implemented many recommendations made in the report.



Ruth Tadda at a riparian area near Chitina. (D. Bauman)



Northern Regional Forester Les Fortune at Northland Wood Products in Fairbanks during a tour with a Chinese delegation. (Dean Brown)

Ruth Tadda Authors Forest Practices Article

Ruth Tadda, secretary to the State Forester and liaison to the Board of Forestry, had an article on Alaska's forest practices published in the September issue of *Western Forester.* Entitled "Alaska has Stringent Riparian Protection Rules," it provided an historical perspective on the 1990 revision of the Alaska Forest Resources and Practices Act and the development of implementing regulations adopted in July, 1993. The article gave a good explanation of the riparian standards for harvest, stream typing criteria, key fish habitat components, and the decision and appeal process. Ruth is a member of the Cook Inlet Chapter of the Society of American Foresters.

Les Fortune Chairs SAF

Lester H. Fortune, Jr., *Les* to friends and colleagues, served as chair of the Alaska Society of American Foresters in 1994 and played a key role in the first national convention of the society to be held in Alaska. As chair of the host society, Les played a very important role in the high level of organization necessary for a successful convention.

Alaska members made up the convention organizing committee, and local volunteers from the six Alaska chapters provided the energy needed to get the job done. Les welcomed convention goers to Anchorage and Alaska to kick off the event and continued to keep a steady hand on things as a leading member of the committee.

The convention was one of the "best ever" according to the national staff and Les' presence and participation throughout the planning, production and presentation of the 1994 SAF National Convention was a significant factor. Les provided a fine representation of his abilities and the profession of forestry in Alaska and the Division of Forestry.

Appendix

Forestry Citizen Advisory Groups - 1994

Alaska Board of Forestry

Daryl McRoberts, non-governmental forestry, Juneau

Andy Miscovich, mining organization, Fairbanks

Larry Hartig, recreation organization, Anchorage

John Sturgeon, forest industry trade association, Anchorage

Ernesta Ballard, native corporation, Ketchikan

Stephan Planchon, environmental organization, Anchorage

Bill Thomas, commercial fisherman's organization, Haines

Rupert Andrews, non-governmental fish/ wildlife biologist, Juneau

Tomas H. Boutin, state forester, Juneau

Tanana Valley State Forest Citizens' Advisory Committee

Pete Shepherd, general public, Fairbanks

Dr. Edmond Packee, forestry profession, Fairbanks

John "Chris" Maisch, native community, Fairbanks

Ron Ricketts, business community, Fairbanks

Sylvia Ward, environmental protection, Fairbanks

Steve Adams, hunting, fishing, trapping; Fairbanks

Tyler Conkle, forest industry, Delta Junction

Robert Fox, outdoor recreation, Fairbanks

David Nester, private forest user, Fairbanks

Ron Rasmussen, forest industry, Fairbanks

James Barker, mining industry, Fairbanks

Forest Stewardship Coordinating Committee

Steve Bush, U.S Forest Service, Anchorage

Jim Carter, Soil & Water Conservation Board, Willow

Tom Ward, U.S. Soil Conservation Service, Anchorage

John Foss, U.S. Forest Service, Juneau

Tony Gasbarro, Alaska Cooperative Extension, Fairbanks

Max Huhndorf, Gana-A' Yoo, Ltd., Galena

Alan Kingsbury, landowner, Talkeetna

Jimmy LaVoie, Agricultural Stabilization & Conservation Service, Palmer

John Mohorcich, Kenai Peninsula Borough, Soldotna

Steve Planchon, The Nature Conservancy, Anchorage

Loisann Reeder, Susitna Valley Association, Anchorage

Ted Smith, Consulting Forester, Willow

Tony Urvina, Bureau of Indian Affiars, Juneau

Alaska Urban & Community Forest Council

Mark Malin, arborist, Fairbanks

Thom Pence, forester, Juneau

Susan Redwood, municipal planner, Anchorage

Linda Cyra-Korsgaard, landscape architect, Anchorage

Leah Spaulding, horticulture, Soldotna

Dennis Kennedy, construction, Fairbanks

Kenneth Suel, small community service, Chuathbaluk

Carol Sanner, community forestry and beautification, Girdwood

Ray Dinger, business, Delta Junction

Tony Gasbarro, Alaska Cooperative Extension, Fairbanks

Cathy Wright, member-at-large, Anchorage

Douglas Crevensten, member-at-large, Fairbanks

Ole Andersson, member-at-large, Soldotna

Melanie Fullman, member-at-large, Ketchikan

Suzanne Little, member-at-large, Soldotna

Fiscal Year 1994 Actuals[1]

Funding Sources	Forest Mgmt./Develop.[2]	Fire Suppression	Total
General Funds	$7,757.5	$5,649.1*	$13,406.6
Federal Receipts	1,099.3	4,413.7	5,513.0
GF/ Program Receipts	4.5	—	4.5
Interagency Receipts	562.4	4,602.9	5,165.3
Capital Improvement Receipts	284.2	—	284.2
Totals	**$9,707.9**	**$14,665.7**	**$24,373.6**

*$1,660 additional required by fire suppression.

Positions	Forest Mgmt./Develop.[3]	Fire Suppression
Permanent-Full Time	67	6
Permanent-Part Time	121	16
Non-Permanent	17	750
Staff Months	1,480	1,657

Resource Management	Northern Region	Southcentral Region	Southeast Region	Statewide	Total
Forest Practices Administration	—	$122.1	$333.6	$100.2	$555.9
Small Timber Sales	468.1	131.2	11.5	151.4	762.2
Forest Stewardship	41.0	171.4	171.3	187.9	571.6
Board of Forestry	—	—	—	5.7	5.7
Forest Health Initiative	—	—	—	115.5	115.5
Reforestation	286.6	37.0	52.4	—	376.0
Interior Timber Development	505.6	—	—	—	505.6
Haines State Forest	—	—	84.2	—	84.2
Subtotals	**$1,301.3**	**$461.7**	**$653.0**	**$560.7**	**$2,976.7**
Fire Management					
Pre-suppression	$1,525.2	$2,461.4	$21.7	$434.4	$4,442.7
Rural Community Fire Prot./Fed	—	—	—	327.6	327.6
Anchorage School District Interns	—	22.3	—	—	22.3
Subtotals	**$1,525.2**	**$2,483.7**	**$21.7**	**$762.0**	**$4,792.6**
Forest Administration					
Federal Coop. Forestry	—	—	—	$771.8	$771.8
Forest Administration	—	—	—	450.5	450.5
Unbudgeted RSAs	—	—	—	716.3	716.3
Program Receipts	—	—	—	—	—
Subtotals	—	—	—	**1,938.6**	**1,938.6**
TOTALS	**$2,826.0**	**$2,945.4**	**$674.7**	**$3,261.3**	**$9,707.9**

[1]All dollar figures are in thousands
[2]Includes the cost of fire pre-suppression (cost of being prepared to fight fires)
[3]Includes fire pre-suppression

Fiscal Year 1995 Budget [1]

Funding Sources	Forest Mgmt./Develop.[2]	Fire Suppression	Totals
General Funds	$7,794.4	—	$7,794.4
Federal Funds	1,415.1	5,328.8	6,743.9
Capital Improvement Receipts	241.0	—	241.0
Interagency Receipts	49.8	—	49.8
Other Funds	—	3,865.3	3,865.3
Totals	**$9,500.3**	**$9,194.1**	**$18,694.4**

Positions	Forest Mgmt./Develop.[3]	Fire Suppression
Permanent-Full Time	67	6
Permanent-Part Time	121	34
Non-Permanent	17	733
Totals	**205**	**773**
Staff Months	1,570	1,734

Renewable Resource Development & Sales	Northern Admin. Area	Southcentral Admin. Area	Southeast Admin. Area	Statewide	Totals
Resource Management	$1,149.6	$289.8	$302.2	$585.5	$2,327.1
HB 441 FPA Research Effectiveness	—	—	66.8	—	66.8
Forest Practices	—	148.4	455.2	142.3	745.9
Board of Forestry	—	—	—	9.2	9.2
Subtotals	**$1,149.6**	**$438.2**	**$824.2**	**$737.0**	**$3,149.0**
Wildland Fire Protection Services					
Pre-suppression	$1,512.3	$2,388.4	$29.5	$566.2	$4,496.4
Rural Community Fire Prot./Fed	—	—	—	77.0	77.0
Anchorage School District Interns	—	41.1	—	—	41.1
Subtotals	**$1,512.3**	**$2,429.5**	**$29.5**	**$643.2**	**$4,614.5**
Forest Administration					
Federal Coop. Forestry Assistance	—	—	—	$1,338.1	$1,338.1
Director's Office	—	—	—	398.7	398.7
Subtotals	**—**	**—**	**—**	**1,736.8**	**1,736.8**
TOTALS	**$2,661.9**	**$2,867.7**	**$786.9**	**$3,183.8**	**$9,500.3**

[1] All dollar figures are in thousands

[2] Includes the cost of fire pre-suppression (cost of being prepared to fight fires)

[3] Includes fire pre-suppression

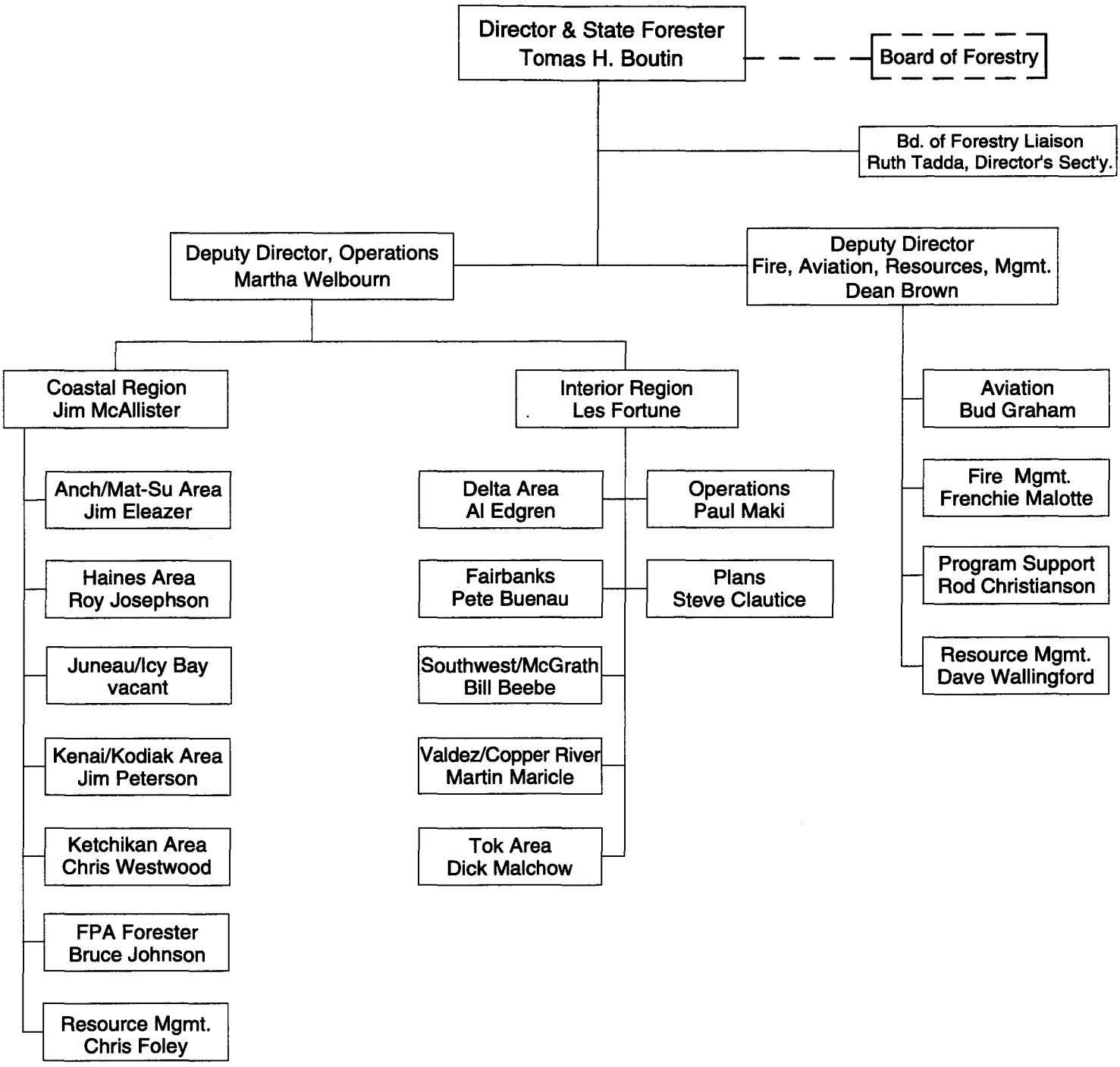
Fiscal Year 1995 Capital Budget Appropriations

(Conference Committee Senate Bill 383, Chapter 4, SLA94)

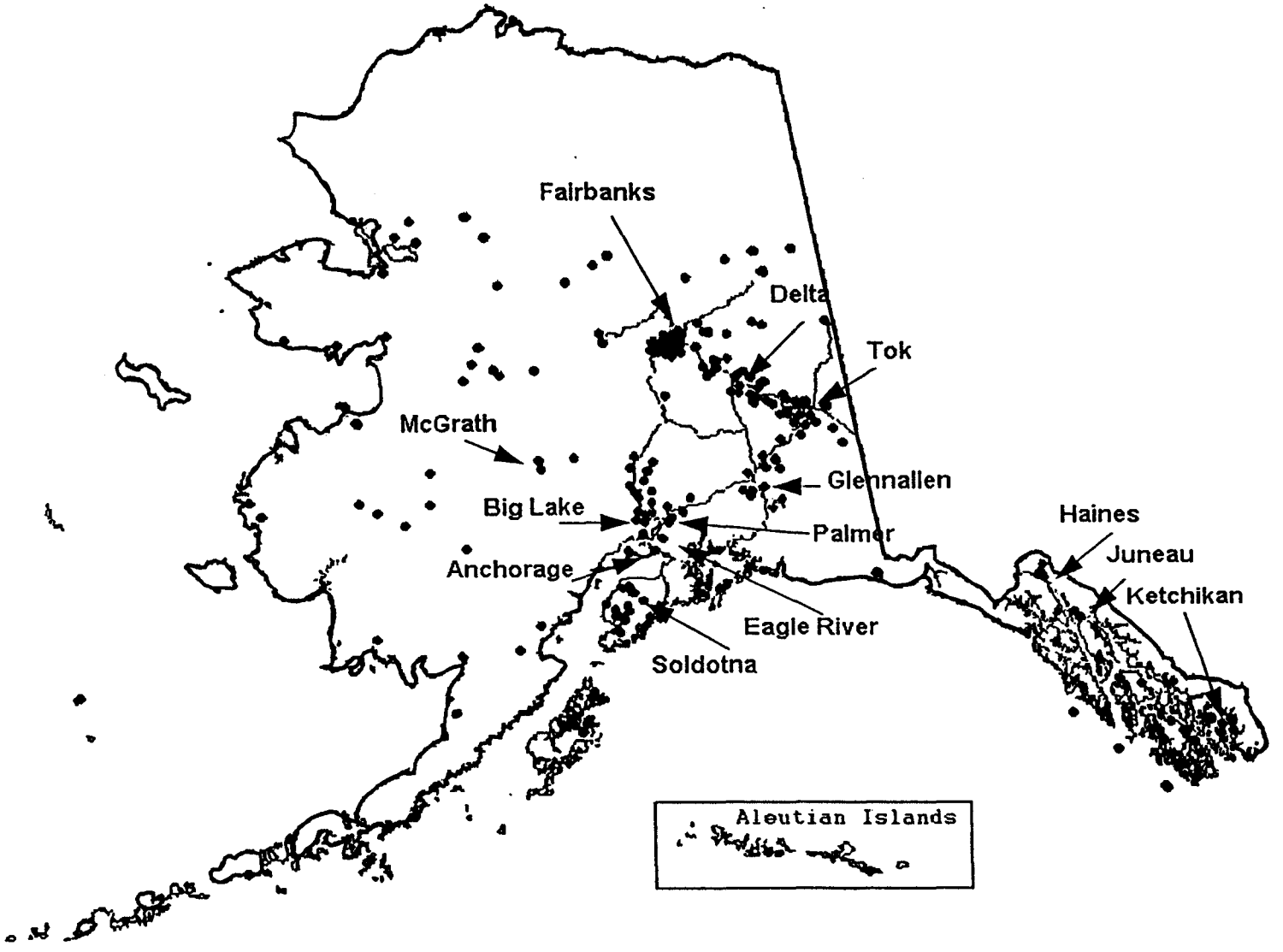
Project	Amount
1. Fire fighting equipment upgrade, replacement: Replacement of pumps, chain saws and other fire fighting equipment no longer worth repair.	$50,000
2. Forest resource inventory: Field plots in Tanana Valley State Forest and aerial photography contract.	$100,000
3. Forest Practices Act effectiveness research: Research and monitoring projects design completed and contract issued in FY '95. Field work on interior and coastal riparian areas to begin late FY '95 or early FY '96. Research to be completed in interior over a 3-year period and in coastal region over a 5-year period.	$200,000
TOTAL	**$350,000**

Division of Forestry Organization Chart

January 1995



Sites of Forestry Offices and Services



Division of Forestry Services:

- Forest Practices Inspections
- Forest Practices Notifications
- Emergency Fire Fighter Village Crews
- Rural Community Fire Protection Grants
- Urban & Community Forestry Grants
- Forest Stewardship Plans
- Commercial Timber Sales
- Beach Log Salvage Permits

Division of Forestry Directory

January 1995

State Forester's Office

400 Willoughby Ave., 3rd Floor
Juneau, Alaska 99801
465-3379 fax: 586-3113

Director & State Forester
Tomas H. Boutin

Anchorage Office
3601 C Street, Suite 1034
Anchorage, Alaska 99503-5937
762-2501 fax: 561-6659

Deputy Director of Fire, Aviation, Resources, Management
Dean Brown, 762-2508

Deputy Director of Operations
Martha Welbourn, 762-2123

Resource Management
Dave Wallingford, 762-2511

Aviation Supervisor
Bud Graham, 762-2509

Fire Management
Frenchie Malotte, 762-2505

Fire Operations
Joe Stam, Fairbanks, 356-5529

Statewide Program Support
Rodney "Chris" Christianson, 762-2502

Urban & Community Forestry Program
Dan Ketchum, 762-2125

Forest Health & Protection (Insects and Disease)
Roger Burnside, 762-2107

Forest Stewardship Program
Jeff Graham, Kenai, 262-4124

Fire Management Office - Anchorage
3601 C Street, Suite 1008
Anchorage, Alaska 99503-5937
762-2121 fax: 561-2707
John See, Fire Mgmt. Officer

Fire Management Office - Fairbanks
3700 Airport Way
Fairbanks, Alaska 99709
451-2680 fax: 451-2690
Jim Lewandoski, Fire Mgmt. Officer

Interior Region

Interior Region Office
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Fairbanks, Alaska 99709
451-2660 fax: 451-2690
Les Fortune, Regional Forester
451-2666

Fairbanks Area Office
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Fairbanks, Alaska 99709-4699
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Pete Buenau, Area Forester

Southwest Area Office
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McGrath, Alaska 99627
524-3010 fax: 524-3932
Bill Beebe, Area Forester

Valdez/Copper River Area Office
P.O. Box 185
(Mi. 110 Richardson Hwy.)
Glennallen, Alaska 99588
822-5534 fax: 822-5539
Martin Maricle, Area Forester

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(Mi. 267.5 Richardson Hwy.)
Delta Junction, Alaska 99737
895-4225 fax: 895-4934
Al Edgren, Area Forester

Tok Area Office
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Tok, Alaska 99780
883-5134 fax: 883-5135
Dick Malchow, Area Forester

Coastal Region

Coastal Region Office
400 Willoughby Ave., 3rd Floor
Juneau, Alaska 99801
465-2494 fax: 586-3113
Jim McAllister, Regional Forester
465-5401

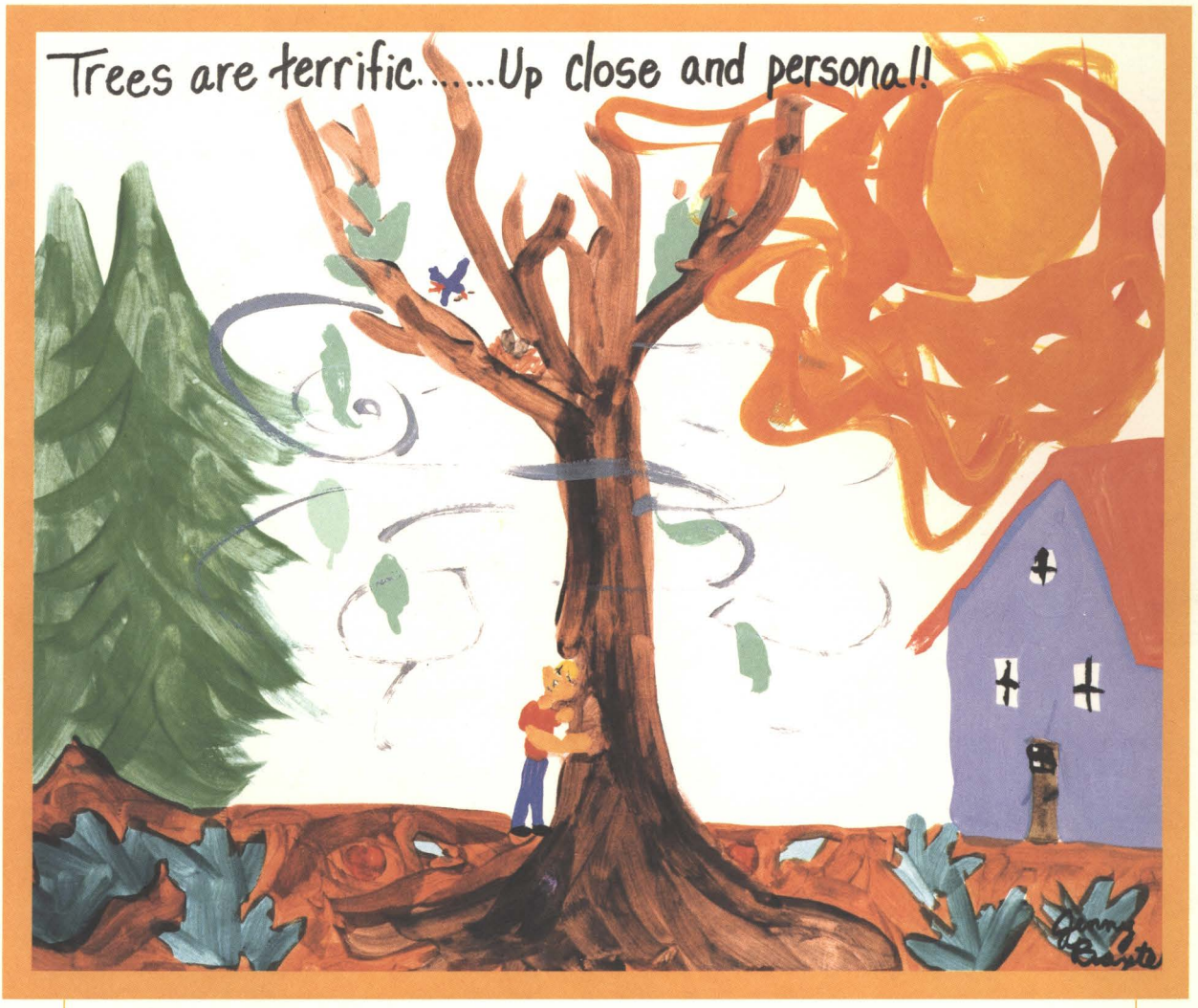
Anchorage/Mat-Su Area Office
P.O. Box 520455 (Mi. 8.2 Big Lake Rd.)
Big Lake, Alaska 99652
892-6027 fax: 892-7958
Jim Eleazer, Area Forester

Kenai-Kodiak Area Office
HC 1, Box 107 (Mi. 92.5 Sterling Hwy.)
Soldotna, Alaska 99669
262-4124 fax: 262-6390
Jim Peterson, Area Forester

Juneau/Icy Bay Area Office
400 Willoughby Ave., 3rd Floor
Juneau, Alaska 99801
465-2494 fax: 586-3113
vacant, Area Forester

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

Ketchikan Area Office
2030 Sea Level Dr., Suite 217
Ketchikan, Alaska 99901
225-3070 fax: 247-3070
Chris Westwood, Area Forester



JENNIFER BAXTER, A FIFTH GRADER AT GLACIER VIEW SCHOOL IN JUNEAU,
WON ALASKA'S FIRST ARBOR DAY POSTER CONTEST IN 1994,
AND WENT ON TO WIN THE NATIONAL CONTEST