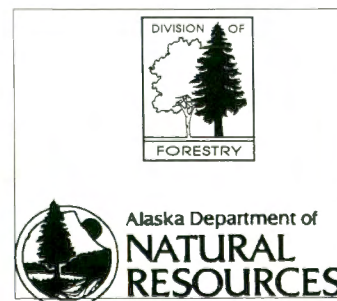
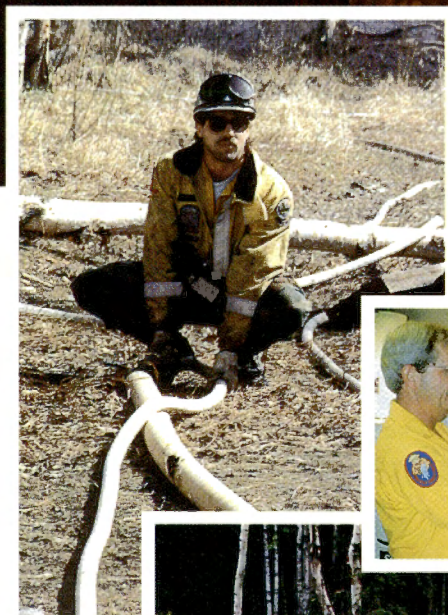
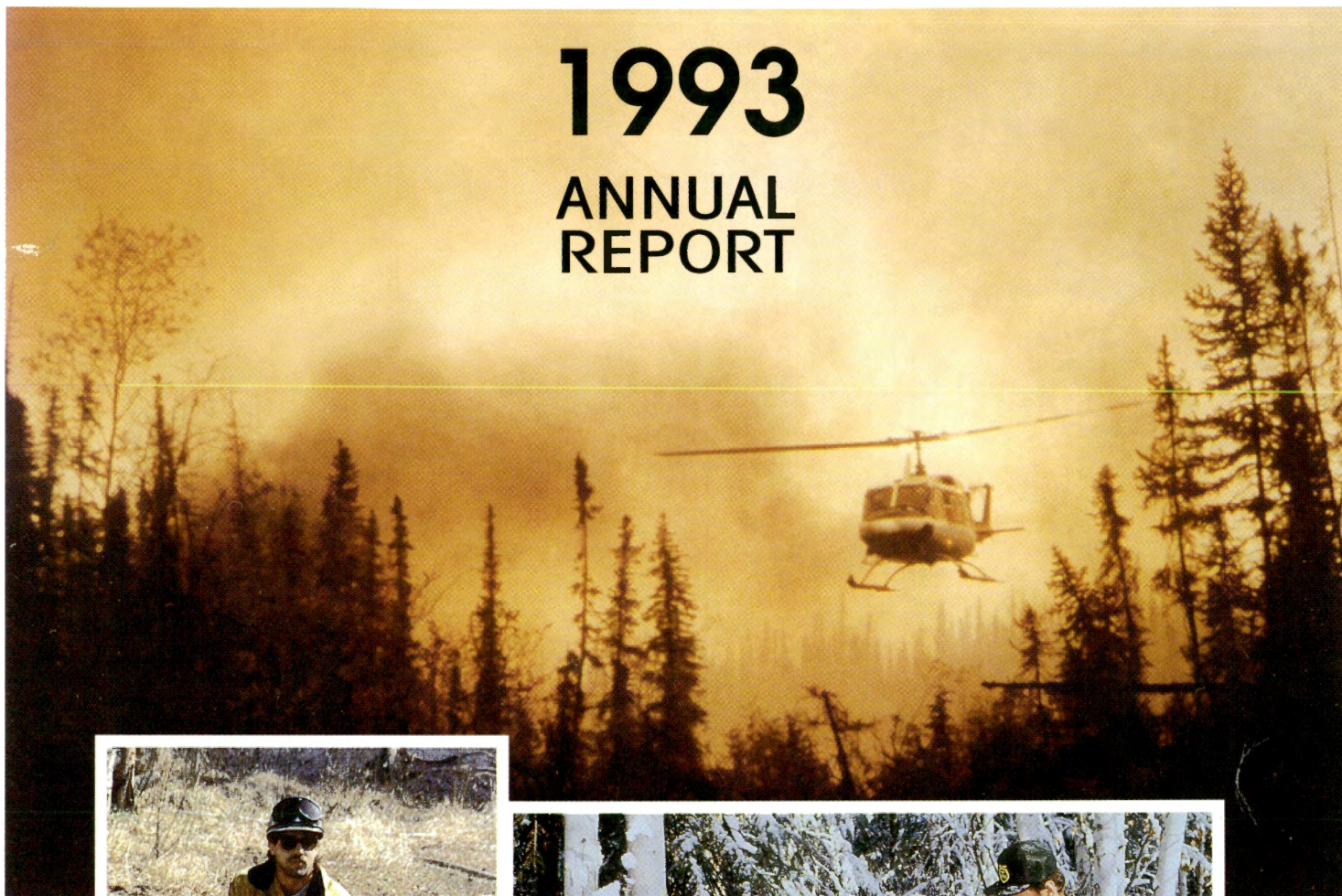


# Alaska Department of Natural Resources Division of Forestry

# 1993

## ANNUAL REPORT





**Alaska Department of Natural Resources**  
**Division of Forestry**

**1993**  
**Annual Report**

**State Forester's Office**  
**400 Willoughby Avenue**  
**Juneau, Alaska 99801**  
**(907) 465-2491**

# Division of Forestry

The Division of Forestry is one of eight divisions within the 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:

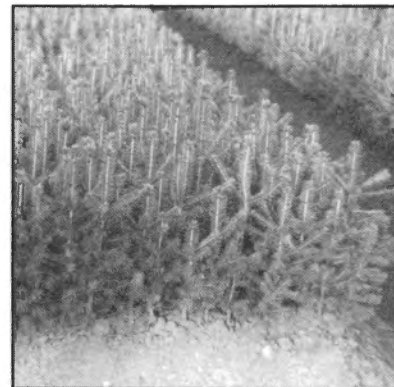
- protects water quality, fish and wildlife habitat and other forest values through appropriate forest practices and through administering the Forest Resources and Practices Act;
- manages a wildland fire program on public, private and municipal lands;
- encourages development of the timber industry 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 1993 the division employed 80 people full-time, 128 seasonally and about 750 as emergency firefighters.

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## Micheal William Peacock

The Division of Forestry lost a valued friend and employee when Mike Peacock was murdered on May 21, 1993 while on duty at the Icy Bay logging camp. Mike was well-known and respected within the Department of Natural Resources and the forestry community because of his many years as a forester in the state.

Mike spent his childhood in Montana, Oregon and Louisiana, the son of a Forest Service employee. He moved to Juneau with his family in 1967, where he graduated from high school. In 1974 Mike graduated from the University of Montana's forestry school. While in college he spent summers working at the Ketchikan Pulp Company's Thorne Bay logging camp and as an intern with Weyerhaeuser in Klamath Falls, Oregon. After college he worked as a logging engineer at several of the pulp company's remote sites on Prince of Wales Island.

In 1978 Mike went to work as a logging engineer for the Metlakatla Native Corporation on Annette Island near Ketchikan. A year later he was hired by the Division of Forestry and worked in the Matanuska Valley and Anchorage. He spent several years in an effort to develop a timber sales program in southcentral Alaska before moving to Juneau in 1987. He was assigned to the Icy Bay operation, site of the state's largest sales program, where he had worked off and on since 1979.

As the Juneau area forester, Mike spent much of his time defending the state's sales program and forest management in various legal challenges, audits and area planning efforts. Fellow employee and close friend Jim McAllister said that Mike set high standards for himself as a forester and expected the same from others. "He distinguished himself through every challenge with his exceptionally quick mind and huge capacity for work."

Mike was very active in serving his community and in activities outside his job. He was an Eagle Scout, a scout master and Sunday school teacher at his church. He was also working toward an accounting degree at the University of Alaska Southeast. Mike enjoyed jogging, hunting, fishing, downhill and cross-country skiing. He was also an experienced winter camper and fond of ski treks in the Yukon Territory. Last March he and Jim McAllister skied about 45 miles from Fraser to Atlin, B.C., where the temperatures dropped to 30° below zero at night.

In remembering Mike, Jim noted that there was a lot more to him than just being a great co-worker and partner in adventures. "He was a great friend, husband and father. He had a zest for life that was shared by few, a man of faith. These are the things that really measure a man's worth in this lifetime. Mike knew what was important. He is missed."



## Comments by Alaska State Forester Tomas H. Boutin

The 1993 Division of Forestry annual report summarizes performance of responsibilities during the calendar year and gives details on products and costs. Forestry had a modest reorganization in 1993 that re-established the former Northern Region as a larger Interior Region and added two areas to the Southeast Region, now called the Coastal Region. The reorganization resulted from a consensus process within the division and involved no personnel changes. A current organization chart is on page 37.

Forest Resources and Practices Act duties increased during the year and extensive regulations became effective. Guidance from the Board of Forestry and cooperation by other agencies are important in continuing to efficiently perform Forestry responsibilities. The strong and steady support provided by the industry and landowners is essential to the extensive protection found in the act. A section on the act begins on page 22.

The ongoing forest health initiative progressed to the proposition of timber sales and reforestation to respond to the spruce beetle epidemic on the Kenai Peninsula. The forest health initiative is described on page 17.

Both the forest health initiative and the overall timber program have benefited and will continue to benefit from dramatically increased log prices in Alaska. While it's too early to know if all sales and volume will make it to the offering stage, the planned timber sale volume for 1995, found in the future harvest schedules prepared in accord with AS 38.05.113, is 133 million board feet. Forestry has offered more than that amount in only one of the past 20 calendar years and has never offered that much without a large, long-term sale.

The 1995 volume planned for the Kenai/Kodiak Area is 77 million board feet. The harvest schedule included additional public involvement because of the planned volume increase and the spruce bark beetle epidemic. Kenai Peninsula Borough Mayor Don Gilman chaired a panel of borough residents who examined the harvest schedule, held public meetings and field trips, and submitted recommendations to Forestry. Every recommendation that had consensus was adopted. Recommendations that did not receive consensus were examined by Forestry, and sales were modified to respond to concerns expressed. Panel members worked very hard and their work is important to Forestry.

The public process is of paramount importance to being able to proceed with any timber sale program. The public needs to know that their comments can influence any outcomes and that their involvement precedes any decisions.

Field trips often achieve what other types of public meetings cannot. Inclusion of increased volumes of low value hardwood in harvest schedules for the Interior caused the public process to become somewhat polarized last summer. A number of Saturday field trips organized by the Boreal Forest Council to examine forestry issues served to bring accord, if not consensus. As on the Kenai Peninsula, Interior residents are willing to work hard on forestry issues.

My observation over the past 10 months has been that Forestry personnel also work very hard. They put in the extra time and effort required to explain plans and activities on public land and cope with real decreases in money and personnel.

An early start in the 1993 fire season resulted in more than the average number of fires, especially in the Haines Area. Overall, while 869 fires burned more than 713,000 acres, there were only two large project fires, both on federal land.

There were a few additional Forestry developments in 1993 that I would like to bring to your attention. The forest stewardship program, described on page 18 offers good forestry practices to owners of private land. The new technology developed for the Standard Creek Road bridge, described on page 6, has application throughout the state. Reforestation efforts using volunteer labor, as introduced on page 4, need to be expanded and Forestry will do that in 1994.

Finally, Forestry personnel will always remember our good friend and colleague Mike Peacock to whom this report is dedicated. Mike was murdered while on the job at Icy Bay. Mike and I laid out timber and worked in the rigging together in Southeast Alaska 20 years ago. Mike was a good logger and a highly regarded professional forester.

I very much appreciate the opportunities for personal growth and hard work offered by this job. I never forget that Forestry is responsible to the public. Please let me know your concerns and ideas. Thank you.

# Highlights of 1993

## Forest Management

- The newly-constructed Lawrence A. Dutton Forest Regeneration Center was officially dedicated.
- The forest regeneration center sowed 350,262 seedlings for reforestation.
- The Division of Forestry planted 414,855 seedlings on 870 acres of state land.
- The division processed 212 forest practices notifications and 84 renewals of timber harvest on 85,777 acres and conducted 182 field inspections.
- A pre-commercial thinning was completed on 465 acres near Haines—the first such project conducted by the state.



Tomas H. Boutin was appointed Alaska's State Forester in 1993.

## Timber Production

- Record-high prices were paid for a timber sale held in the Fairbanks Area and a salvage sale on Mitkof Island in Southeast.
- The harvest of 9.383 million board feet of timber on state lands added \$342,581 to state revenues.
- Forty commercial timber sale contracts, 21 commercial fuelwood sales and 553 personal use fuelwood permits were issued.
- The division registered 114 log brands, an increase from 74 the previous year. This was the third consecutive year of substantial increases.

## Fire Protection

- In cooperation with federal agencies, the division provided fire protection for 134 million acres of private, municipal and state land.
- The Department of Natural Resources signed a Cooperative Fire Protection Agreement with the Bureau of Land Management that will save the state an estimated \$6.7 million each year.
- Emergency fire fighters collected over \$4 million in state and federal wages.
- The division administered 22 federal Rural Community Fire Protection Grants totaling \$76,312.

## Cooperative Assistance and Educational Programs

- Federal Urban & Community Forestry Grants totaling \$40,000 were made to 11 communities. The grants were matched with \$76,000 in local funds and in-kind services.
- The division administered a \$64,000 grant from the Small Business Administration for tree planting in ten communities around the state.
- A statewide coordinator was hired for Project Learning Tree, a nationwide environmental education program that trains teachers to help students make wise decisions about the use, management and protection of forest resources. The position is funded by the U.S. Forest Service Natural Resource Conservation Education program.
- Forest Stewardship Program foresters prepared 30 stewardship plans for private forest landowners, covering 2,491 acres. Two ANCSA corporations, Elim and Gana-A' Yoo, also completed stewardship plans for their land.



# Resource Management

## Forest Regeneration

### Lawrence A. Dutton Forest Regeneration Center

Construction of the new Lawrence A. Dutton Forest Regeneration Center in Palmer was completed, with an open house and tour on June 28. The new facility is located on 12 acres at the University of Alaska Fairbanks Agricultural & Forestry Experiment Station's Matanuska Research Farm. It includes two greenhouses, which were moved from the former nursery site in Eagle River, and a new headhouse. The headhouse provides expanded work and storage space and has a walk-in seed freezer.

Management of the Forest Regeneration Center was transferred from the Division of Forestry to the Division of Agriculture on July 1, 1993.

### Haines Tree Thinning Project

The Haines Area completed a pre-commercial tree thinning project in 1993—the first such project of any size completed by the state. A contractor thinned 465 acres of 20-year-old second growth spruce and hemlock. Thinning allows for increased growth by reducing the competition for light, moisture and nutrients.



Student intern planting a white spruce tree on the Matanuska Valley Moose Range.

## Cooperative Reforestation Projects in the Mat-Su Area

When the Alaska Center for the Environment/Mat-Su learned of the division's tree planting plans for the Matanuska Valley Moose Range, it offered to organize volunteers to help with the project. Volunteers from ACE, local 4-H clubs and high school environmental awareness groups, and the division's student intern crew spent two days in June replanting three personal-use harvest units totaling 15 acres. Foresters from the Big Lake Office supervised.

The Department of Fish and Game also contributed to regeneration in the moose range by disc-trenching about 20 acres. In another cooperative venture, DWI offenders serving time at a camp near Palmer planted nearly 7,000 white spruce seedlings in September.

In cooperation with the University of Alaska Fairbanks, the Big Lake Office completed a five-year study on birch seed fall on sites near Trapper Creek, Willow and the Matanuska Valley Moose Range. The study was done to document the amount of seed fall, variations over the years and differences between locations. The information assists the timber sale program in determining the frequency of good birch seed years for natural regeneration.

## Spruce Cone Collection

In an effort to continue a successful reforestation program, the division collects seed from areas it intends to replant. In 1993 the Big Lake Office purchased 12.3 bushels of white spruce cones from local youth. The cones were gathered from active commercial timber sales near Houston and Willow.

On the Kenai Peninsula 70 bushels of spruce cones were collected, mostly in the Moose Pass area. Collectors were paid \$33 per bushel. These projects were featured in newspapers and on Anchorage television news programs.

## Reforestation Council Workshop

The Alaska Reforestation Council, Division of Forestry and U.S. Forest Service sponsored a three-day silviculture workshop on the Kenai Peninsula in October. The workshop focused on options for rehabilitating forests impacted by spruce bark beetles and the importance of education and good communication. The group of 48 participants from 15 organizations discussed a wide range of viewpoints and options.

### Seedlings Planted - 1993

white spruce	263,125
lodgepole pine	25,770
Siberian larch	21,082
Sitka spruce	12,600
paper birch	11,055
Siberian pea shrub	5,586
blue spruce	2,882
noble fir	1,256
Korean pine	1,200
Dahurian larch	1,082
silverberry	794
balsam fir	686
mountain hemlock	686
Siberian crab apple	490
Siberian fir	396
European birch	396
European larch	196
Pacific silver fir	196
Sakhalin fir	196
grand fir	196
hairy birch	196
ponderosa pine	196
<b>Total</b>	<b>350,262</b>

### Reforestation on State Land - 1993

Areas	Seedlings planted	Acres planted
Fairbanks	308,000	546
Mat-Su	33,855	55
Haines	26,000	77
Delta	21,000	148
Tok	18,000	30
Kenai	8,000	15
<b>Total</b>	<b>414,855</b>	<b>871</b>



Bill LaTocha, Division of Forestry, and Earl Stephens, Alaska Reforestation Council, inspect a lodgepole pine plantation near Tyonek. Chris Olson did much of the planting while working as a technician for Mike Peacock in the late 1970s.



## Timber Development

### Record High Sales

Timber prices reached unprecedented highs in the spring of 1993, resulting in an increase in timber harvesting on private lands and an active timber sale program. Interest in beach log salvage also rose dramatically. A substantial increase was noted in variation requests for trees in riparian areas, with many trees which had been of lower value being requested. Some corporations also began to consider logging areas previously harvested by helicopter.

The Southeast Region received a record high price for a salvage sale in April. The sale, on Mitkof Island, sold for \$500 per thousand board feet. The 141.2 MBF of blown-down spruce and hemlock brought \$4,010 to the University of Alaska and \$66,640 to the state's general fund.

The Fairbanks Area sold six timber sales at the May auction. The largest sale offered, MC-761, received a record price of \$82.45 per hundred cubic feet (CCF). This equates to \$203 per thousand board feet. The total volume of the sale was 9,615 CCF, approximately 3.9 million board feet.



A standard shovel logging operation near Prince of Wales Island.

### Standard Creek Road Bridge

Forestry's Fairbanks Area Office received a \$30,000 grant from the U. S. Forest Service in January, 1992 to replace the aged log stringer bridge on the Standard Creek Road where it crosses Goldstream Creek. The state matched the grant with Capital Improvement Project funds. The goals of the project were to allow continued access to over two hundred million board feet of timber in the lower Goldstream valley and to build an all-timber bridge engineered to use small dimensional local lumber.

The bridge was designed by the University of Alaska's Department of Engineering. The design objectives were to build a single span bridge that would support 150,000 pounds and to use locally-milled 2" by 8" white spruce. Approximately 12,000 board feet of locally harvested white spruce was used in the bridge. A lasting benefit of the project is a standardized set of blueprints for bridges with a typical span of 30 to 40 feet that are affordable and relatively easy to build.

The 64-foot-long bridge was set in place in the fall of 1993 after numerous delays due to poor weather and road conditions. The final phase of the Standard Creek Road realignment will be completed during the 1994 field season.

### Quartz Lake Road Extension

The Division of Forestry awarded a \$25,000 survey engineering and design contract to extend the Quartz Lake Road in the Interior Region. Delta Area foresters brushed the center line and worked with the Division of Parks to prepare the bid request. The road will eventually provide access to more than 300,000 acres of commercial forest lands in the Tanana Valley State Forest. It will also provide access to recreational property around Quartz Lake and improve the development potential for the Division of Parks. The Quartz Lake area receives 76,000 visitors annually. The extension is expected to be completed by the year 2000.

## Tanana State Forest Inventory

The division's forest inventory program conducted its first field sampling project since 1985. Fifty-three field sample points, representing 311,300 acres, were measured during the fall. The project was funded by the Tanana Valley Development and the Inventory CIPs for fiscal year 1994. The objective was to verify and improve estimates of timber volume and productivity on state lands within the Tanana Valley.

The first phase of the inventory concentrated on seedling/sapling stands of hardwood and hardwood/spruce mix, and hardwood/spruce saw timber. Preliminary results show an estimated 125,330 acres of forest land suitable for fiber production. Forty-three hundred acres of mature spruce/birch were sampled with an estimated volume of 12 million cubic feet of fiber. Sampling in other timber types is planned for 1994.

## Tok Area Timber Sale Database

The Tok Area Office created a database of information on the 79 timber sales that have occurred in the area since 1972. The database will enable the division to obtain information on timber sales including volume, costs, reforestation and administration.

## Mill Recovery Study

The Division of Forestry participated in a mill recovery study conducted by the U.S. Forest Service Pacific Northwest Research Station in Seward on October 6. The study was done to determine the highest value products that can be obtained from beetle-killed timber, based on the length of time the tree has been dead. It is known that the longer a tree is dead the less likely it is that a high value product can be manufactured. This study will help establish a correlation between wood quality and time.

A total of 406 logs taken from various locations on the Kenai Peninsula yielded 30,000 board feet of lumber. Staff from Forestry, the Kenai Peninsula Borough and the U.S. Forest Service participated in the study at the Seward Forest Products mill. Drying and planing were done later in October. The results of the study and final analysis will be available in early 1994.

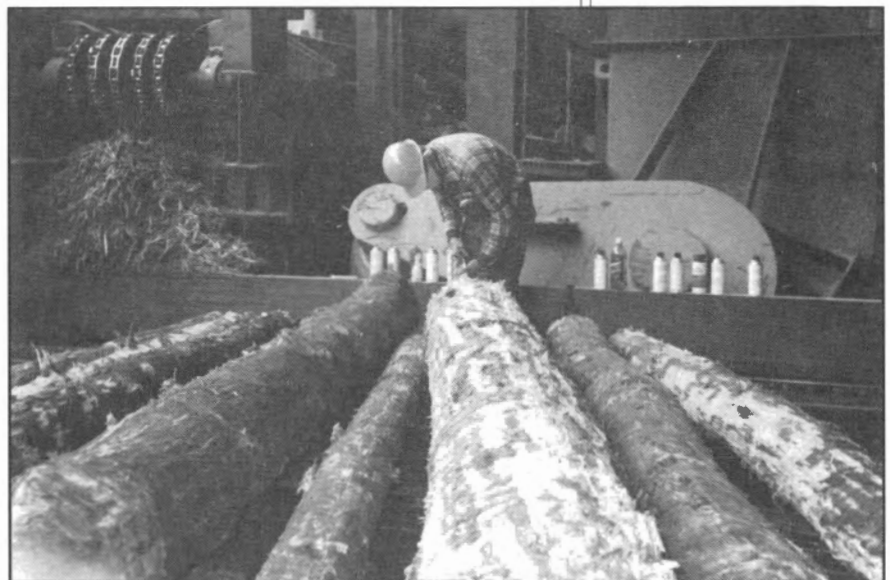
## Southwest Timber Development

The Southwest Area held two 50,000-board-foot sales near McGrath in late May at the request of local loggers. The Department of Fish & Game expedited its review to meet the needs of the operators, who could access the sale area from the Kuskokwim River only during high water. The over-mature white spruce were harvested for use in local businesses, which reduces the amount of timber that McGrath must import. The sale also created several summer-long jobs, so had a marked effect on the local economy.

The area forester is encouraging local operators to consider the zig-zag yarding system as a method to economically harvest the small-diameter material common in the area. As part of the effort, he arranged for U.S. Forest Service, State and Private Forestry staff to visit McGrath in May and provide a demonstration of the system.

## Panel Advises on Kenai Harvest

DNR Commissioner Noah named an advisory panel to review and make recommendation on Forestry's Kenai-Kodiak Area Five-Year Harvest Schedule. The panel, chaired by Kenai Peninsula Borough Mayor Don Gilman, held public meetings in Soldotna, Ninilchik, Moose Pass and Homer during the last three months of the year. The panel completed its work in December and planned to report its decisions to the commissioner in early 1994.



Results of a mill recovery study at the Seward Forest Products Mill will help determine the highest value products that can be obtained from trees killed by spruce bark beetles.



## Cut and Sold on State Lands 1959 ~ 1993

Year	Annual Sales Volume (MBF)	Annual Cut Volume (MBF)	Cut Value (\$)
1959-71	765,846	332,794	1,261,970
1972	23,110	50,591	401,133
1973	449,452	38,356	218,357
1974	21,146	51,241	376,450
1975	4,655	33,540	430,486
1976	2,358	41,714	73,043
1977	2,412	60,251	544,884
1978	6,932	30,301	638,806
1979	156,235	32,382	1,016,585
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

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.

\* Includes a back payment of \$413,665.

## Average Sawtimber Stumpage per MBF 1981 ~ 1993

Year	Aspen	Birch	Cottonwood	Hemlock	Sitka Spruce	White Spruce
1981	0	\$32.22	\$7.46	\$14.53	\$24.82	\$35.96
1982	0	\$27.27	\$10.00	\$10.92	\$28.24	\$25.65
1983	\$14.47	\$29.95	0	\$3.50	\$166.93	\$39.95
1984	\$10.60	\$26.70	0	0	\$32.72	\$20.20
1985	0	0	\$15.10	\$21.85	\$17.65	\$26.52
1986	\$20.13	\$30.00	\$15.10	\$9.22	\$19.44	\$25.00
1987	\$10.00	\$8.76	0	\$14.13	\$18.78	\$7.32
1988	\$2.03	0	\$9.42	\$3.00	\$97.80	\$21.11
1989	\$2.13	\$7.01	\$9.96	\$5.88	\$71.29	\$34.25
1990	0	\$6.86	\$10.00	\$3.67	\$46.95	\$17.14
1991	0	\$24.76	0	0	\$82.57	\$14.32
1992	0	0	0	\$3.59 (\$1.47 ccf)	\$66.42 (\$30.41 ccf)	\$34.17 (\$14.24 ccf)
1993	0	0	20.00 (\$8.13 ccf)	60.81 (\$28.02 ccf)	90.09 (\$41.51 ccf)	84.57 (\$34.72 ccf)

# Cut and Sold Report by Region

## Calendar Year 1993

### Volume Cut

Region	Sawtimber		Other Products <sup>1</sup>		Total Volume	
	MBF	CCF	MBF	CCF	MBF	CCF
Northern	3,729	10,287	1,234	3,173	4,963	13,460
Southcentral	515	1,170	455	1,123	970	2,293
Southeast	2,052	4,453	1,398	3,034	3,450	7,487
<b>Total</b>	<b>6,296</b>	<b>15,910</b>	<b>3,087</b>	<b>7,330</b>	<b>9,383</b>	<b>23,240</b>

### Volume Sold

Region	Sawtimber		Other Products <sup>1</sup>		Total Volume	
	MBF	CCF	MBF	CCF	MBF	CCF
Northern	12,803	31,587	4,405	11,612	17,208	43,199
Southcentral	812	1,881	208	455	1,020	2,336
Southeast	9,065	19,671	0	0	9,065	19,671
<b>Total</b>	<b>22,680</b>	<b>53,139</b>	<b>4,613</b>	<b>12,067</b>	<b>27,293</b>	<b>65,206</b>

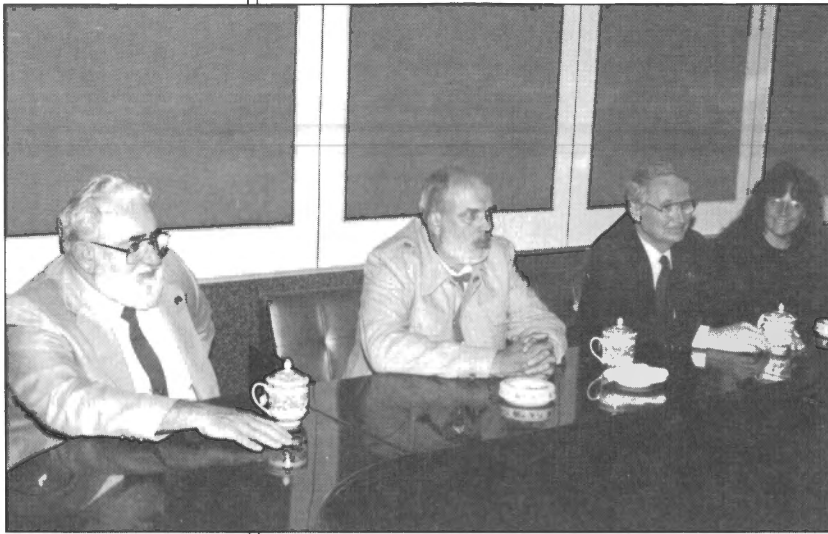
<sup>1</sup>Other products include pulp logs, fuel wood, house logs, etc.

## Contracts Issued by Type and Area

### Calendar Year 1993

Region	COMMERCIAL USE			PERSONAL USE		
	Fuel wood Sales	Saw log Sales	Beach log Salvage	Fuel wood Permits	House log Sales	Saw log Sales
<b>Northern Region</b>						
Fairbanks	9	19	0	346	9	20
Delta	6	7	0	86	0	0
Tok	4	2	0	62	0	0
<b>Total</b>	<b>19</b>	<b>28</b>	<b>0</b>	<b>494</b>	<b>9</b>	<b>0</b>
<b>Southcentral Region</b>						
Anchorage/Mat-Su	1	3	0	46	13	8
Kenai/Kodiak	0	0	0	5	1	1
Valdez/Copper River	1	1	0	8	3	0
Southwest (McGrath)	0	1	0	0	0	0
<b>Total</b>	<b>2</b>	<b>5</b>	<b>0</b>	<b>59</b>	<b>17</b>	<b>9</b>
<b>Southeast Region</b>						
<b>Total</b>	<b>0</b>	<b>7</b>	<b>15</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>GRAND TOTAL</b>	<b>21</b>	<b>40</b>	<b>15</b>	<b>553</b>	<b>26</b>	<b>9</b>





Alaskan visitors in China (left to right) Frank Seymour, Department of Commerce and Economic Development; Edmond Packee, University of Alaska Fairbanks; Max Hodel, Office of International Trade; and Dean Brown, Division of Forestry.

## Chinese Show Interest in Alaskan Wood Fiber

The Heilongjian/Alaska Forestry, Economic Trade and Technology Cooperative Commission met in China September 18 through 29, 1993. This third meeting of the commission, the first held in China, provided Alaskans a quality opportunity to glimpse the potential nature and magnitude of long-term cooperation, both technological and commercial, between Alaska and northeast China.

The Alaskan delegation was led by Max Hodel, Director of the Office of International Trade, and Vice Chair Dean Brown, Deputy State Forester. Accompanying members were Frank Seymour, marketing specialist with the Division of Economic Development; and Professor Edmond Packee with the University of Alaska Fairbanks.

Heilongjian, located in the far northeast part of China, has one quarter the total domestic wood supply of China, extensive wood processing facilities and major manufacturing and industrial activity. It covers 469,000 square kilometers and has a population of 35.2 million. Heilongjian is quite interested in Alaskan wood fiber, potential private industry joint ventures, and technological exchanges in the areas of fire and research. Agreements were made for a technical exchange in wildland fire fighting in 1994.

## Ruffed Grouse Habitat Improved

The National Ruffed Grouse Society granted the Division of Forestry \$11,800 in January to improve ruffed grouse habitat on the Delta Bison Range. Small patch cuts were made in over-mature aspen stands to encourage young aspen shoots, a food source for the birds. Seven sale units were also laid out in the area, providing firewood and sawtimber sales in addition to improved habitat. A biologist from the society visited the site in August and was very pleased with the work done by the division in cooperation with the Department of Fish & Game.

## ARCview Geographic Information Software

Management of the state's forest resources and its wildland fire protection program depends on extensive knowledge of land ownership, forest inventories, insects and disease, fire history, transportation systems, vegetation types and the history of state activities. Keeping track of this spatial information for the responsible stewardship of the state's forest resources is an expensive challenge. Development of new software and hardware at lower prices has recently made it possible to integrate the current spatial databases into the operations of area offices.

The division's computer committee considered and approved a project to deliver geographic information systems to the area offices. ARCview (ESRI) is the choice for enabling areas to display and analyze spatial data for use in forest management and fire programs. Database design and distribution will continue from Anchorage and Fairbanks. The division's computer committee will monitor the program for two years.

The division provides training and support to area offices by installing the software, familiarizing staff with it, and providing a one-day GIS course and phone support. Forestry personnel in Delta, Tok, Juneau and Haines were trained to use ARCview. The system allows staff to analyze forest management and fire programs and to make maps.

## Fire as a Resource Management Tool

Forestry conducted a 600-acre prescribed burn in the Susitna Valley in July to improve and increase the diversity of wildlife habitat. At the Department of Fish & Game's request, Forestry, BLM and the U.S. Forest Service cooperated in the carefully planned prescribed burn to create a winter foraging area for moose by developing early successional vegetation. Careful preparation and planning was required to take advantage of a narrow opportunity for correct temperatures, fuel conditions and winds to provide for a safe burning operation.

## Resource Training

### Road Design Training

The Fairbanks Area Office hosted a road design training course in December. Forestry staff provided one day of training on surveying, note-taking, drafting, hand design and practical considerations for constructing roads in interior Alaska. Alternatch provided two days of training on the use of "Lumberjack," computer-aided road design software that can reduce road design time by a minimum of 60 percent and improve the designs created.

### Ecosystem Management

A Regional Forester and an Assistant Attorney General attended a symposium entitled New Concepts in Ecosystem Management. The intensive classroom and field training was sponsored by the University of Washington and the U.S. Forest Service. A broad spectrum of professionals, from foresters to fish biologists, presented scientific information and an added perspective on potential effects of wood resource management. Direct impacts on Alaska's forest resource and anticipated trends were of particular benefit.

## Professional Timber Cruising

Atterbury Consultants, Inc. of Beaverton, Oregon conducted a three-day seminar, Professional Timber Cruising, in Ketchikan in March. The seminar covered the basics of timber cruising and the use of the Atterbury Super A.C.E. Cruise Program. A half-day field session allowed participants to perform actual timber cruising and to apply methods learned in the seminar. Two foresters from the division attended, along with foresters from industry and the federal government.

## Fairbanks Forestry Forum

The Alaska Cooperative Extension in Fairbanks sponsored a series of public forums on forestry issues in which the division participated. The first meeting, held in February, was entitled, "Tanana Valley Forests—Considering their Future." At the second meeting, held in April, fourteen people each made ten-minute presentations on the values they want maintained through management of interior forest lands.

In July, Larry Mayo of the Alaska Boreal Forest Council led a group that looked at various clearing and harvesting practices and discussed options and ecological effects. The forum also sponsored an eight-hour field trip to several forest sites west of Fairbanks, where Dr. Ed Packee of the University of Alaska Fairbanks presented information on management options for public forest lands. The final meeting, held in December, featured two members of the Attorney General's Office who presented information on resource management and development as described in the Alaska Constitution.



Inventory Forester Steve Phillips uses ARCview, a geographic information program, to read computerized maps of the state's forest resources.

# Forest Health & Protection

## Forest Insects

Forest insect and disease damage increased throughout Alaska in 1993. (See table on page 13). The entire state experienced an early and record warm spring and summer—the driest summer in almost 75 years. Insects responded with population increases and shortened life cycles.

Spruce bark beetle activity increased for the fifth consecutive year. Aerial surveys show that new and ongoing infestations now affect over 720,000 acres. Spruce beetle populations have increased dramatically in both size and intensity over the entire Kenai Peninsula and in the Copper River Basin. However, activity decreased along the Yukon River and on the west side of Cook Inlet.

Populations in Sitka spruce along Turnagain Arm have remained static, although an increase was noted along the Six Mile River and Hope Road, primarily near Walker Creek. Spruce beetle populations also increased in the Kachemak Bay area where more than 14,000 acres of Sitka spruce on the south side of the bay are infested.

Hardwood defoliator activity decreased from 150,000 acres in 1992 to 40,000 acres in 1993. A significant decline in the amount of defoliated willow accounts for much of this reduction. Spruce budworm defoliation in interior Alaska declined by more than 133,000 acres. However, almost 4,000 acres of budworm defoliation was detected near Lake Clark for the first time. Black-headed budworm populations continued to decline in Prince William Sound and the Turnagain Pass/Portage area.

In southeast Alaska, coastal spruce/hemlock forests are experiencing the largest black-headed budworm epidemic in the past 40 years. For the third consecutive year vast areas were impacted by budworm defoliation, with over 250,000 acres noted in 1993. The activity was concentrated between Petersburg and Juneau. Increases in defoliated acreage are expected to continue in 1994.

Hemlock sawfly populations in Southeast also increased, impacting about 19,000 acres, a three-fold increase over 1992. The most spectacular defoliation observed in the spruce/hemlock forests of Southeast in 1993 was on 12,000 acres impacted by both black-headed budworm and hemlock sawfly.

Spruce beetle activity continued at two locations in southeast Alaska in 1993. The outbreak near Haines continued to expand with activity noted on about 20,000 acres. Surveys in 1992 showed that 14,000 acres in the Haines area were infested. Salvage operations are ongoing on portions of the Haines State Forest. Spruce beetle activity in Glacier Bay National Park declined and now totals approximately 3,000 acres.

## Forest Diseases

Yellow cedar decline, wood decay of live trees and hemlock dwarf mistletoe were the most significant diseases of Alaskan forests. All three have economic impacts and alter ecological conditions, including forest structure, composition and succession. On the positive side, tree cavities formed by heart rot, and witches broom created by dwarf mistletoe provide wildlife habitat.

More than 500,000 acres of cedar decline occurred in southeast Alaska in a broad band from western Chichagof Island through the Ketchikan area. Heart rot and butt rot fungi caused significant cull in all tree species in Alaska. Hemlock dwarf mistletoe continued to cause growth loss and mortality in old-growth forests of southeast Alaska; its impact in young-growth stands appears to depend on the presence of large infected residuals left after harvesting.

An outbreak of hemlock canker, apparently caused by a fungus and possibly aggravated by dust, killed small hemlocks and the lower branches of large hemlocks along unpaved roads on Prince of Wales Island near Rowan Bay, on Kuiu Island, Corner Bay on Chichagof Island and Carroll Inlet on Revillagigedo Island. The disease was found for the first time away from roads in natural openings in forests and along streams.

Spruce needle rust was present at high levels throughout Alaska, particularly around Petersburg. Most other foliar pathogens occurred at low to moderate levels in 1993. *Rhizosphaera pini* needle cast was found for the first time to be causing considerable damage to the lower crowns of Sitka spruce in southeast Alaska. Porcupines continued to damage spruce and hemlock in valuable young-growth stands in Southeast. Decay, canker, and foliar fungi caused large but unmeasured damage to hardwood species.



# 1993 Forest Insect Activity and Diseases by Land Ownership<sup>1</sup>

The following figures are from the U.S. Forest Service, State and Private Forestry publication, "Forest Insect and Disease Conditions in Alaska - 1993."

Pest	State/Private	Nat'l Forest	Other Federal	Native	Total
Spruce beetle <i>Dendroctonus rufipennis</i> (Coleoptera)	356,400	26,240	191,300	150,810	<b>724,750<sup>2</sup></b>
Engravers <i>Ips</i> spp. (Coleoptera)	330	— —	1,990	1,970	<b>4,290</b>
Spruce budworm <i>Choristoneura</i> spp. (Lepidoptera)	26,700	— —	6,860	— —	<b>33,560</b>
Black-headed budworm <i>Acleris gloverana</i> (Lepidoptera) affects hemlock, Sitka spruce	37,950	199,300	— —	21,800	<b>259,050</b>
Larch sawfly <i>Pristiphora erichsonii</i> (Hymenoptera)	9,940	— —	1,780	500	<b>12,220</b>
Hemlock sawfly <i>Neodiprion tsugae</i> (Hymenoptera)	6,090	12,100	— —	780	<b>24,280</b>
Large aspen tortrix <i>Choristoneura conflictana</i> (Lepidoptera)	25,380	— —	14,000	24,050	<b>63,430</b>
Spruce needle aphid <i>Elatobium abietinum</i> (Homoptera)	— —	620	— —	— —	<b>620</b>
Birch defoliation various spp. (Lepidoptera)	150	— —	— —	— —	<b>150</b>
Spear-marked black moth <i>Rheumaptera hastata</i> (Lepidoptera)	5,450	— —	5	— —	<b>5,455</b>
Cottonwood defoliation various spp (Coleoptera, Lepidoptera)	410	1,550	930	10	<b>2,900</b>
Alder defoliation various spp. (Hymenoptera, Homoptera)	100	430	120	310	<b>960</b>
Willow defoliation (Coleoptera, Lepidoptera)	2,360	— —	36,380	1,900	<b>40,640</b>
Alaska yellow cedar decline <sup>3</sup> (cumulative)	10,430	541,350	— —	17,670	<b>569,450</b>
<b>Total acres by ownership</b>	<b>481,690</b>	<b>781,590</b>	<b>253,365</b>	<b>219,800</b>	<b>1,741,755</b>

<sup>1</sup> 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.

<sup>2</sup> About half of the ongoing spruce beetle activity mapped in 1993, over 350,000 acres, is on the Kenai Peninsula.

<sup>3</sup> Figures for yellow-cedar decline are not restricted to acreage with high concentrations of dying trees in 1993. Figures represent stands that have long-dead, recently-dead, dying and some healthy trees.

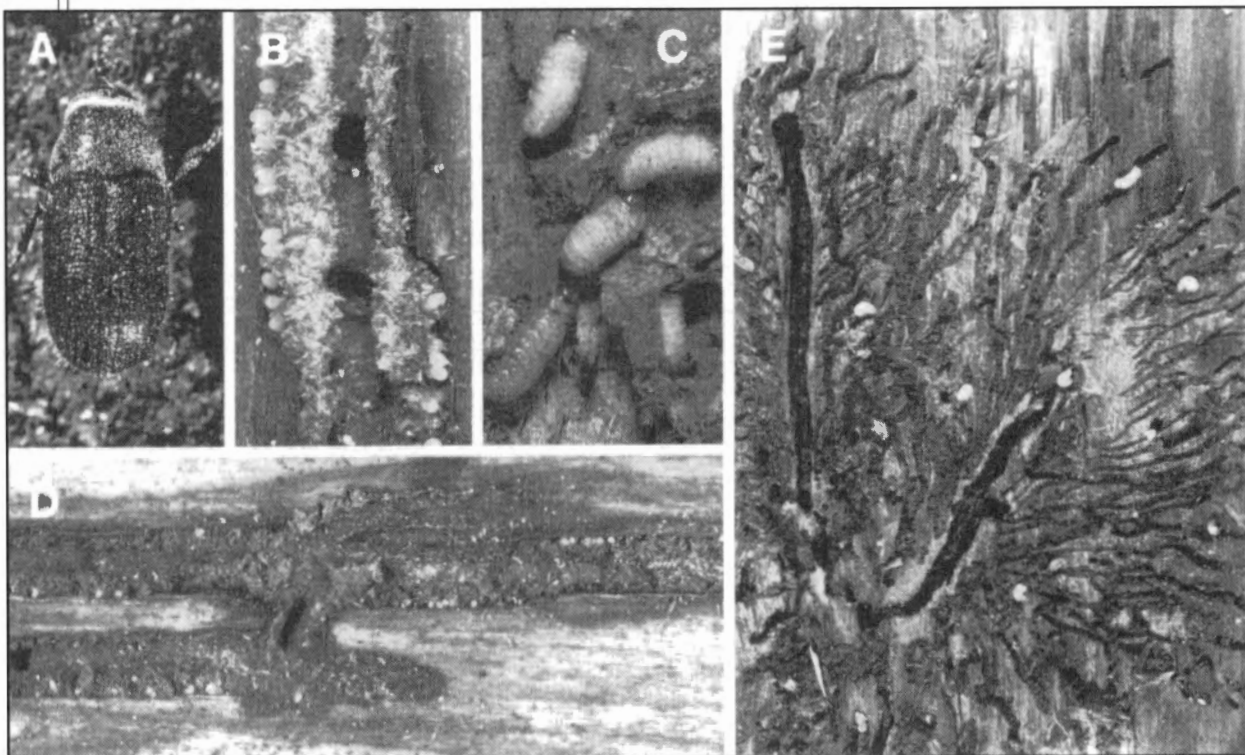
## Forest Pest Evaluation and Monitoring

The Division of Forestry and the U.S. Forest Service (USFS) completed a project to obtain color infrared (CIR) imagery on a portion of the western Kenai Peninsula in June and July. CIR imagery was also obtained on Chugach National Forest and state forested lands along the Seward Highway in the Seward, Moose Pass, Hope and Turnagain Pass areas, and near Haines. The project was conducted by a USFS photography crew from Colorado, which also tested an airborne color video system and took color videos of selected areas during the survey.

Forest technicians completed strip plot infestation surveys on selected tracts within the Falls Creek Block near Clam Gulch. The technicians resampled a random set of parcels that were surveyed in 1990 and 1991 to compare changes in spruce beetle damage since that survey. The data may also be used to determine stocking, size-class distribution, volume, incidence of blowdown and basal area projections by species.

Forestry continued to provide assistance to the Division of Parks in addressing spruce bark beetles on state park lands. Parks staff are concerned about tree mortality caused by spruce beetles in developed recreation sites and the need to develop long-term silvicultural strategies to improve stand health and productivity overall. Forestry's entomologist helped park rangers identify hazard trees and evaluate insect and disease problems in the heavily-used Bird Creek Campground and at the Upper Huffman Trailhead in Chugach State Park. The Division of Parks began removing hazard trees in October, based on this evaluation.

Since 1970, spruce bark beetles have killed trees on 700,000 acres—about 35 percent of the forested land on the Kenai Peninsula.



**The spruce beetle *Dendroctonus rufipennis*.**

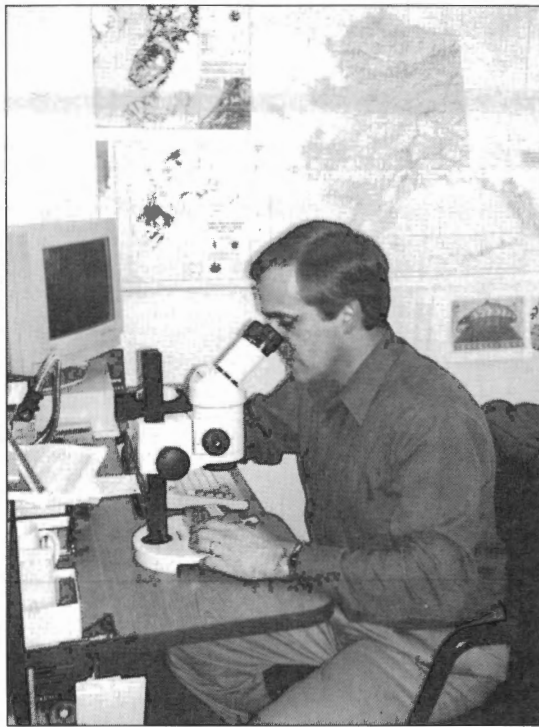
**A.** Adult spruce beetle. **B.** *D. rufipennis* eggs.  
**C.** *D. rufipennis* larvae. **D.** Adult galleries. **E.** Adult and larval galleries. (Source: Ives, W.G. H., and Wong, H.R. 1988. Tree and shrub insects of the prairie provinces. Infor. Rept. NOR-X-292, Northern For. Centre, Can. For. Serv., 327 pp.)

## Research

Forestry, in cooperation with the USFS, is establishing spruce beetle pheromone research studies near Moose Pass and Clam Gulch. The studies are part of an ongoing effort to develop more efficient pheromone formulations for monitoring and manipulating beetle populations. Another objective is to develop alternative suppression strategies to use in conjunction with forest management operations. Three of the studies are on state lands proposed for timber harvest along the Falls Creek road. One study will test the anti-attractant pheromone MCH as a potential manipulation tool to prevent spruce beetle build-up in downed spruce logs. Another will test the efficacy of MCH in reducing infestations in standing trees. A third study will provide information on the distance and direction of beetle flight within stands of infested white and Lutz spruce in, and across, open areas.

Cooperative research studies at Falls Creek this past summer yielded encouraging results for the use of the spruce beetle anti-attractant MCH. Preliminary test results indicate potential for using a pheromone "bubble cap" device to protect individual high value trees from spruce beetle attack. Investigations in 1994 will better define the pheromone's chemical activity under field conditions. However, the results were encouraging enough to consider testing MCH for protecting spruce seed trees after harvest and in preventing beetle attacks in isolated stands of mature spruce in developed areas.

In southeast Alaska, the division and the USFS, undertook a spruce bark beetle MCH anti-aggregate pheromone study in a blow-down that occurred in 1992. The study was done to determine the effectiveness of the MCH pheromone in protecting windthrown timber from beetle attack. Initial results indicate that there was little difference between the various applications and the control. It was also noted that some of the beetles had already pupated. Thus it appears that they are completing their life cycle in one year instead of two. The MCH studies will be redesigned and continued in 1994.



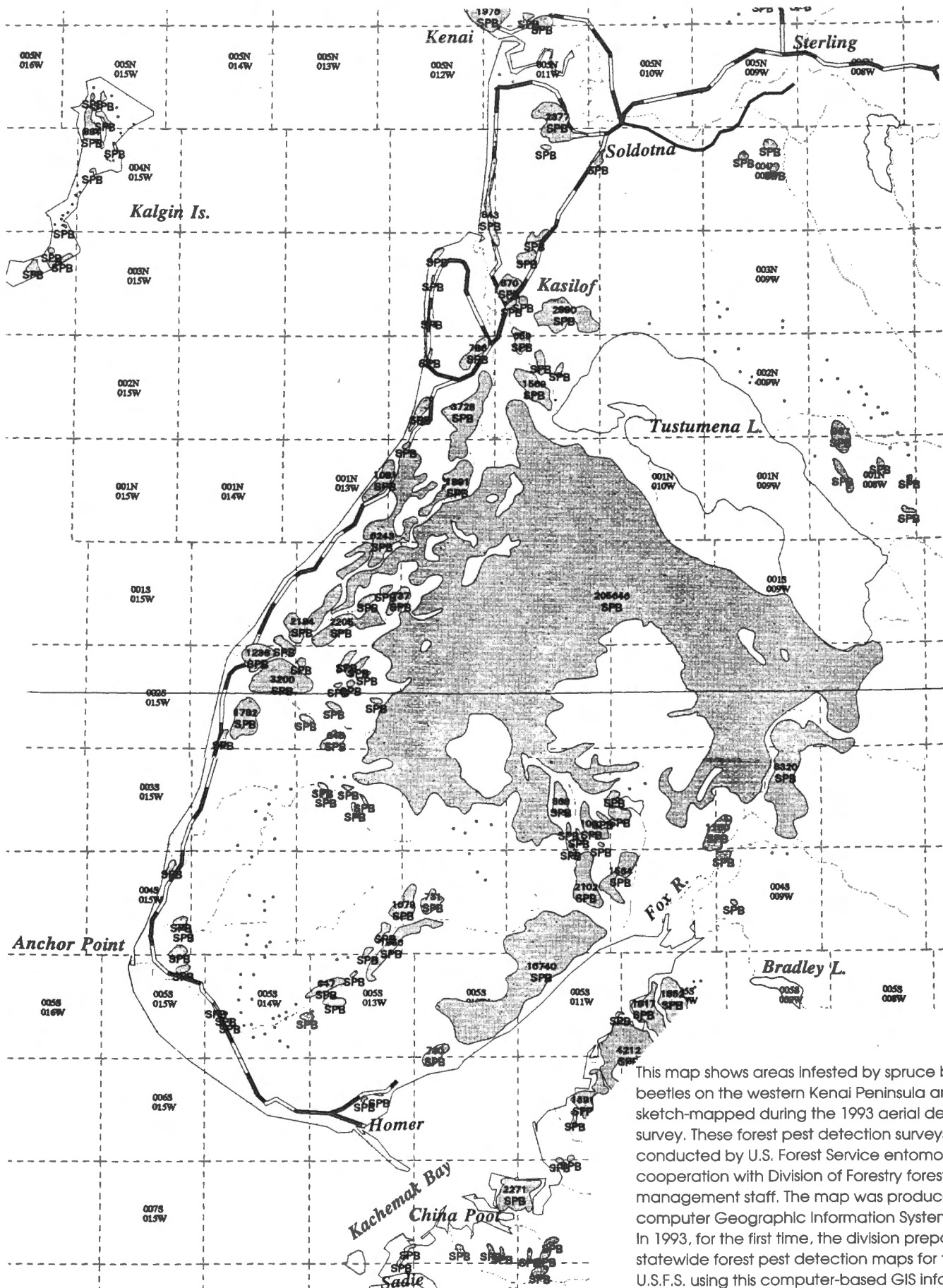
Roger Burnside, Division of Forestry entomologist, identifies bark beetle specimens provided by a private landowner near Soldotna.

## Forest Health Maps

Forestry's inventory and forest health protection units collaborated with USFS entomologists to prepare automated GIS maps for the 1993 Forest Insect and Disease Conditions Report. The division completed 51 maps, at a scale of 1:250,000, that depict the aerial surveys of forest pest activity statewide. The forest conditions report is an annual assessment of statewide forest pest conditions and trends for federal, state and private resource owners and managers.

Forestry released three new forest health specialty maps that show spruce bark beetle distribution—one for the Kenai Peninsula, one for the Copper Basin and one that is statewide. The data was gathered from USFS aerial insect surveys for the years 1991 to 1993. The division also completed a new map showing the five-year frequency of spruce bark beetle attacks on the Kenai Peninsula. This was part of a project by the division and the USFS to automate forest pest activity sketch mapped from the statewide aerial detection surveys. The GIS database included pest activity information for the years 1989 through 1993.

## Areas Infested by the Spruce Bark Beetle



This map shows areas infested by spruce bark beetles on the western Kenai Peninsula and sketch-mapped during the 1993 aerial detection survey. These forest pest detection surveys are conducted by U.S. Forest Service entomologists in cooperation with Division of Forestry forest pest management staff. The map was produced by a computer Geographic Information System (GIS). In 1993, for the first time, the division prepared the statewide forest pest detection maps for the U.S.F.S. using this computer-based GIS information.



## Forest Health Initiative

The Forest Health Management Plan, which was completed for the western Kenai Peninsula, identified several areas infested with spruce beetles and prioritized them for possible timber harvests. In order to achieve the management objectives of improving the health of the forest and capturing the economic value of the beetle-attacked trees, while protecting other forest resource values, the division requested a review of its proposed management actions by an international panel of professionals in silviculture and forest management. Les Reed of the University of British Columbia, David Adams of the University of Idaho, and Jane Difley, president of the Society of American Foresters, came to Alaska to participate in a forest health tour and to provide an evaluation. The group visited the Kenai Peninsula to study the spruce bark beetle infestation first hand and met with division and U.S. Forest Service personnel.

The panel members, who are experienced with infestation impacts, concluded that the Kenai Peninsula has a major emergency, far beyond normal. The panel's professional conclusion was that the impacts would not only affect wood fiber but fish and wildlife habitat, water quality and recreation. The potential for extremely high fire danger is present and fire control could be difficult and costly.

The Alaska Department of Fish and Game and the U.S. Forest Service have provided the division with the professional expertise of a fish and game biologist and a forest silviculturist through cooperative agreements. Their field work and the development of forest land use plans and silvicultural prescriptions for management actions is providing a sound basis for management decisions on the Kenai Peninsula.

The promulgation of "emergency sale regulations authorizing the state to act quickly in forest emergencies" was enacted and signed into regulation in 1993. This allows the state to offer sales, under carefully-defined conditions, without their inclusion for two years in the five-year harvest schedule. All other public notice required by Title 38 is required under the emergency sale regulation.

The local small sale program on the Kenai Peninsula will expand to provide additional infested timber to the market. These efforts will require increased program activities in scarification for natural regeneration, and tree planting where a spruce seed source no longer exists.

The Division of Forestry is providing technical assistance to State Parks statewide, as well as striving to suppress spruce beetle infestations in the Copper, Tanana and Susitna river basins. Work with the Municipality of Anchorage concerning spruce beetle activity and its associated wildfire problems is part of the division's urban interface forest health initiative.

### *Beat the Beetle*

The Division of Forestry's video, *Beat the Beetle* was completed in 1993 and was well received by the public. More than 150 copies were distributed to area forestry offices, schools, the Cooperative Extension and community associations in Anchorage, the Mat-Su and on the Kenai Peninsula in March. The 14-minute video discusses the spruce beetle problem and includes information on prevention and control options for the home or lot owner.

In April the state media center released a public service announcement about the video, including a short spot about the division's forest health efforts. It was played on RATNET and Channel 13 and resulted in many requests for the video. It was also shown on the public television program, "Alaska Home & Garden."

The video is available for free check-out at all seven Blockbuster Video locations. It may be viewed at the DNR Public Information Center in Anchorage and individual copies may be purchased for \$10.

## Cooperative Forestry

The National Tree Program, begun in 1991, calls on citizens, businesses and local governments to work together to plant and care for trees and forests in communities and rural areas nationwide.

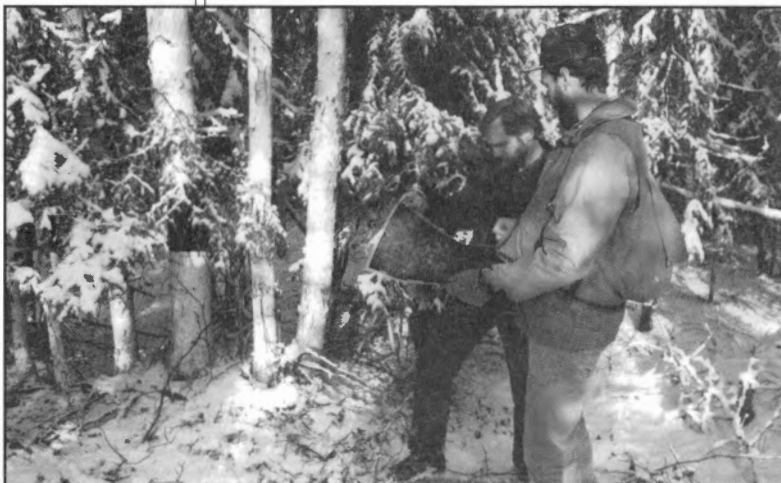
The National Tree Program was initiated because of a decline in the number and health of trees in communities and on private land in rural areas. This decline contributes to pollution and limits the environmental, social and economic benefits provided by healthy trees and forests, including:

- 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.

Alaska is active in two of these programs. The Forest Stewardship Program addresses tree planting and forest improvement on private land by providing technical and financial assistance to private owners of forested land. 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 forestry programs through the State Forester's Office in each state.

*More than half of our nation's productive forest land belongs to non-industrial, private landowners. The Forest Stewardship Program provides technical and financial assistance to help maintain and improve the health of this valuable resource.*



Stewardship Forester Peter Simpson helps a private landowner develop a forest stewardship plan.

## Forest Stewardship Program

The purpose of the Forest Stewardship Program is to assist non-industrial private forest landowners. The program began in Alaska in August 1991. It has two principle goals: to assist private forest owners in developing a ten-year forest plan, and to provide guidance and financial assistance for conducting approved management practices. Financial assistance for management practices is available only for ownerships under 5,000 acres, whereas planning assistance has no acreage restrictions.

In 1993, division personnel prepared 30 forest stewardship plans for individual landowners, covering 2,491 acres. Participating landowners are located in the Tanana Valley, the Mat-Su Valley and on the Kenai Peninsula. The most common land planning objective was to maintain the health and vigor of the forest. Other objectives included wildlife habitat improvement and tree planting.

Financial assistance for management practices is available through the Stewardship Incentive Program (SIP). There are nine categories of practices that qualify for assistance, ranging from tree planting to recreation improvements. In 1993, ten SIP practices were completed. Pruning to aid spruce beetle resistance was the most common practice, followed by tree planting. In total, close to \$20,000 was obligated for SIP practices. SIP payments are federal funds administered by the USDA Agricultural Stabilization and Conservation Service.

In addition to stewardship planning and SIP assistance, Division of Forestry stewardship foresters respond to numerous public requests for information and assistance. This includes tree planting questions and requests for presentations to community organizations and tree inspections for spruce beetles.

The Stewardship Program also offers planning assistance to Alaska Native Corporations to develop stewardship plans. Assistance is provided through a grant to the corporation. The corporation then prepares the plan using either its own staff or a private consultant. Two ANCSA corporations completed stewardship plans in 1993, Elim and Gana-A' Yoo. Grants have been awarded to two other corporations to begin stewardship planning and several additional corporations have expressed interest in the program. The Stewardship Program intends to expand its assistance to ANCSA corporations in 1994.

The Stewardship Program receives guidance from the Alaska Stewardship Coordinating Committee. The committee is comprised of representatives from a broad range of land use interests. The committee met three times in 1993 for all-day sessions and members helped to develop a brochure describing Alaska's Stewardship Program. The division is very appreciative of the time and effort given by the committee.

## Urban & Community Forestry

Trees and other vegetation that grow in and around where people live make up urban and community forests. The Urban & Community Forestry Program helps local governments, businesses, non-profit organizations and interested citizens to 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, long-term community tree and forest management programs;
- encourages the private sector to support and fund community forestry programs;
- supports research and the introduction and trials of new tree and shrub varieties in Alaska.

The Alaska Urban & Community Forest Council, a citizen advisory group, provides support and advice on development and delivery of the program. In April membership was increased from eight to fifteen. Members are from all regions of the state and from a variety of professions and fields of interest.

## Urban & Community Forestry Grants

The division awards federal grants to encourage and support the development of ongoing community forestry programs. In 1993 the division gave grants to:

- Palmer Middle School
- Mat-Su Borough Parks & Recreation
- Alpine Historical Park, Sutton
- Delta-Greely School District
- Society of American Foresters, Cook Inlet
- Coffman Cove Civic Club
- Plant Materials Center, Palmer
- Montessori School, Fairbanks



Urban & Community Forestry grants have provided trees to beautify school grounds across the state. They have also given children an opportunity to experience the joy and benefits that come from planting and caring for trees.

- Petersburg Parks & Recreation
- Friends of Castle Heights Park, Anchorage
- Verstovia School, Sitka

Federal grants totaling \$40,309 were matched by \$76,500 in donations and in-kind services from communities. Grants funded tree plantings and interpretive displays on public land; hands-on educational programs; community beautification; creation of living sight, sound and wind barriers; and publication of the *Alaska Landscape Plant Sources Directory*.

The division also administers the Small Business Administration National Tree Planting Grants. A total of \$64,460 was awarded to:

- City of Delta Junction
- Kenai Peninsula Borough
- Klatt Elementary School, Anchorage
- Pioneer Peak Elementary School, Palmer
- Seward Parks & Recreation
- Division of Forestry for Arbor Day trees
- Lyon's Park, Anchorage
- Fairbanks Little League Park
- Griffin Park, Fairbanks
- City of Wasilla

The grants will be used to hire small businesses to plant trees on public lands in 1994. Communities matched these grants with \$78,188 in donations and in-kind services.

*Urban and community forests in the U.S. cover 70 million acres and are valued at \$50 billion.*

U.S. Forest Service

## Public Education and Information

### Project Learning Tree

Project Learning Tree is an interdisciplinary curriculum which strives to present a balanced view toward forest management issues and protection of environmental quality. It is used internationally with students in all grades. The pre-kindergarten through grade eight curriculum guide was revised in 1993 and now includes lessons on contemporary, global environmental issues, as well as activities about botany, people's interrelationships with the forest ecosystem and urban forestry.

In 1993, the division hired a part-time coordinator for the statewide program. She is responsible for program organization, training facilitators and planning and conducting training workshops for teachers and resource professionals who want to use PLT materials with students or youth groups. Attending a workshop is required in order to receive the curriculum materials.

A graduate-level course on PLT offered by the division was attended by 32 Anchorage teachers. In addition, the PLT coordinator conducted four workshops for teachers, one in Galena and three in Anchorage. Staff from the Alaska Cooperative Extension and the U.S. Forest Service also presented workshops in Gustavus and Palmer. These two organizations cooperate with the division, the Department of Education and the Alaska Forest Association to sponsor PLT in Alaska.



### Forestry Trains Students

The Division of Forestry participated in several projects to provide on-the-job training for students this summer. Students gained experience and training that enhanced their education and prospects for employment and the division completed projects that could not have been done without their help.

The Fairbanks Area participated in a training program for a crew of six high school students sponsored by the Alaska Federation for Community Self Reliance and funded by a grant from the Private Industry Council. The crew received training and experience in many aspects of forest management, including reforestation, timber sale layout and regeneration surveys. This is the second year the division participated in this program.

A thirteen-student intern crew worked for the Big Lake Office. The crew planted 15,000 seedlings, surveyed 9.5 miles of road, served as a mop-up crew for a 650-acre controlled burn, helped complete construction of the McHugh Creek Trail for the Division of Parks, and worked on the trail at Caribou Creek for the Division of Land.

The Kenai/Kodiak Area hired a forestry instructor and four student interns from the Alaska Vocational Technical School in Seward. The students cruised timber, collected field data and ran 53 miles of property boundary on Kalgin Island and near Falls Creek, where bark beetles have killed more than 20 percent of the spruce. The crew also completed laying out five 40-acre timber sales in the Moose Pass area. The crew played an important role in advancing the timber sale program on the Kenai Peninsula.

Project Learning Tree Coordinator Susan Rogers leads a workshop attended by (right to left) Julie Riley, Alaska Cooperative Extension; Martin Maricle, Division of Forestry; Peter Simpson, DOF; Cindy Forrest-Elkins, DOF; Wade Wahrenbrock, DOF; Daisy Lee Bitter, Center for Coastal Studies; Tony Gasbarro and Peter Stortz, Alaska Cooperative Extension.



## Arbor Day

In Alaska, Arbor Day is celebrated on the third Monday in May. This day is set aside as a time for tree planting ceremonies and to recognize the beauty of trees. More importantly, it is an opportunity to educate people about the ecological, social and economic benefits provided by trees. The division sponsored and participated in Arbor Day activities around the state and noted that communities were especially enthusiastic about the celebration this year.

In the northern region the division assisted in tree planting ceremonies at the North Pole City Hall, and at nine schools and the Gold Heart Park in Fairbanks. In Anchorage, Urban & Community Forestry staff participated in the city's Arbor Day ceremony at Willowcrest Elementary School and at a tree planting at the Eisenhower Memorial. The U&CF Program co-sponsored a tree tour at the University of Alaska led by the Alaska Cooperative Extension.

State Forester Tom Boutin and Senator Suzanne Little, a member of the Alaska Urban & Community Forest Council, participated in an Arbor Day Ceremony at Farnsworth Park in Soldotna, organized by the city and Global ReLeaf. At a Mat-Su Borough ceremony, students planted seedlings donated by the division's nursery.

The division also distributed seedlings to schools and residents in the Copper River area for Arbor Day activities. Students at schools in Kenny Lake and Nelchina planted over 1,000 seedlings and the Tazlina Resident Association planted trees to beautify the community.

An Urban & Community Forestry grant and 1,000 white spruce seedlings donated by the Big Lake office, allowed the Society of American Foresters to continue its annual distribution of seedlings to the public. The Urban & Community Forestry Program was also responsible for the most northerly Arbor Day ceremony ever held through the donation of a tree to be grown inside Barrow's elementary school.



Deputy State Forester Dean Brown and Urban & Community Forestry Coordinator Dan Ketchum celebrated Arbor Day by planting a tree in downtown Anchorage.

## Homer Demonstration Forest

The Homer Demonstration Forest, located on 360 acres of state-owned land just northwest of Homer, was established in 1986 and is managed by the Division of Forestry.

A draft plan was prepared by the USDA Soil Conservation Service and the division in 1991. A final Memorandum of Understanding was signed in 1993. An interagency steering committee and members of the Homer community cooperated in preparing the plan.

The demonstration forest provides an area where the public can observe demonstrations and field trials of various forest management practices, learn about forest ecology and wildlife, and recreate in ways compatible with forest management objectives.

# Forest Resources & Practices Act

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

In 1992, the Department of Natural Resources completed draft regulations implementing revisions made to the Forest Resources and Practices Act in 1990. The regulations were reviewed by the Department of Law and adopted in June, 1993. Copies of the Forest Practices Statutes and Regulations were published and made available to the public statewide.

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 Divi-

sion of Forestry for review. The division then coordinates review of notifications with the departments of Environmental Conservation and Fish and Game. When the review is completed (within 30 days after notification) the operator may begin. Operators generally submit notifications well in advance of when they anticipate beginning operations.

Forestry coordinates field inspections with the operator, DEC and DF&G. Field inspections are usually scheduled so that several notification areas can be inspected during one trip. Some operations receive more than one field inspection due to the location or relative importance of the site. Other 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 can begin. This is the reason for the difference in the number of notifications and the number of inspections in the chart below.

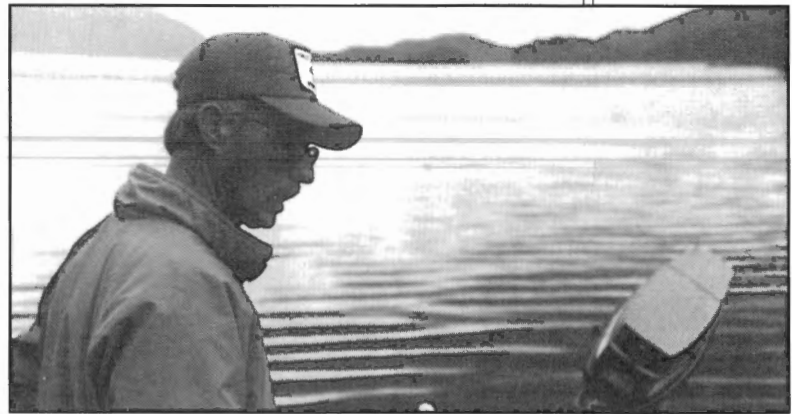
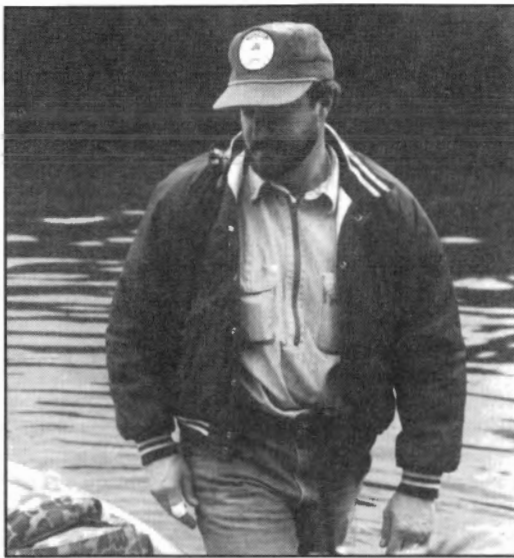
## Forest Practices Act Program Administrative Activities on Private Land

Region*	Harvest Plan Notifications			Harvest Plan Renewals			Active Harvest Acreage			Number of Inspections			Number of Variations		
	1991	1992	1993	1991	1992	1993	1991	1992	1993	1991	1992	1993	1991	1992	1993
Coastal	136	162	208	58	56	83	44,453	80,879	81,199	219	196	182	14	38	44
Interior	3	4	4	0	0	1	2,929	5,072	4,578	2	6	3	0	0	0
Total	139	166	212	58	56	84	47,382	85,951	85,777	221	196	182	14	38	44

Region*	Number of Trees Reviewed			Insects: Acres Reviewed			Regeneration: Acres Reviewed			FPA Violation Admin. Actions		
	1991	1992	1993	1991	1992	1993	1991	1992	1993	1991	1992	1993
Coastal	433	1,351	3,996	2,200	1,850	2,800	580	1,120	1,290	9	9	13
Interior	0	0	0	0	0	0	0	0	0	0	0	0
Total	433	1,351	3,996	2,200	1,850	2,800	580	1,120	1,290	9	9	13

\* Coastal Region includes: Ketchikan, Juneau, Haines, Anchorage/Mat-Su, Kenai/Kodiak

\* Interior Region includes: Fairbanks, Delta, Tok, Copper River, McGrath



## FPA Training

The division provides training to ensure that the Forest Practices Act is enforced consistently throughout the state. Three division employees attended a four-day Investigation and Forest Practices Act training session in June. The nationally-certified course covered administrative law, conducting interviews and gathering evidence. In addition, an all-day session was held for division staff to discuss the new regulations, enforcement forms, the detailed Plan of Operations form and conducting forest practices inspections.

The Ketchikan Area Office provided a week of training for staff from the Mat-Su and Kenai/Kodiak areas in late November. The training included trips to various operations in the Ketchikan area and an opportunity to participate in a variation inspection.

The Valdez/Copper River Area Forester taught a three-hour non-credit course on the Forest Practices Act at the Prince William Sound Community College. The course focused on the act as it relates to activities in the Copper River Basin.

## Log Brands

Log brand registrations increased for the third year in a row. Many new brands were issued to small operators interested in beach log salvage. Log brands are registered for five-year periods.

	1992	1993
Renewed	37	57
Older brands renewed	3	5
New brands registered	34	52
<b>Total Log Brands</b>	<b>74</b>	<b>114</b>

## Alaska Board of Forestry

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

Board members at the beginning of 1993, and their seats, were Ralph Malone, non-governmental forestry; Andy Miscovich, mining organization; Loisann Reeder, recreation organization; John Sturgeon, forest industry trade association; Ernesta Ballard, native corporation; Stephan Planchon, environmental organization; Pete Isleib, commercial fisherman's organization; and Rupert Andrews, non-governmental fish/wildlife biologist. State Forester Tomas H. Boutin is presiding officer. In June, the governor appointed Larry Hartig to the recreational organization seat and Daryl McRoberts to the non-governmental forester seat. Bill Thomas was appointed to complete Pete Isleib's term.

### Pete Isleib

The Board of Forestry lost a valuable member and Alaska lost a dedicated conservationist when Pete Isleib died in a fishing accident on June 18. Mr. Isleib served in the commercial fisherman's seat on the board. He also contributed his time and energy to the Alaska Coastal Policy Council, Alaska Board of Fisheries, Stellar Sea Lion Recovery Team, Pacific State Marine Fisheries Commission and the Governor's High Seas Task Force.

He had a deep love for Alaska's marine environment, especially its birds, and had been called the "Zen master of birding in Alaska." He was always willing to share his knowledge with others. The division very much appreciated his contributions.

Above left: Ketchikan Area Forester Chris Westwood is responsible for field inspections and compliance of FPA regulations in his area.

Above right: Jim McAllister, Coastal Region Forester, oversees enforcement of the Forest Resources & Practices Act statewide.

# 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 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 divides the state into fire protection levels based on major natural fire breaks and the objectives of land managers. This allows attack forces to be deployed to the highest priority areas, those where communities and valuable resources are located, and gives options for lower cost tactics in remote and unsettled areas.

## Fire Protection Levels

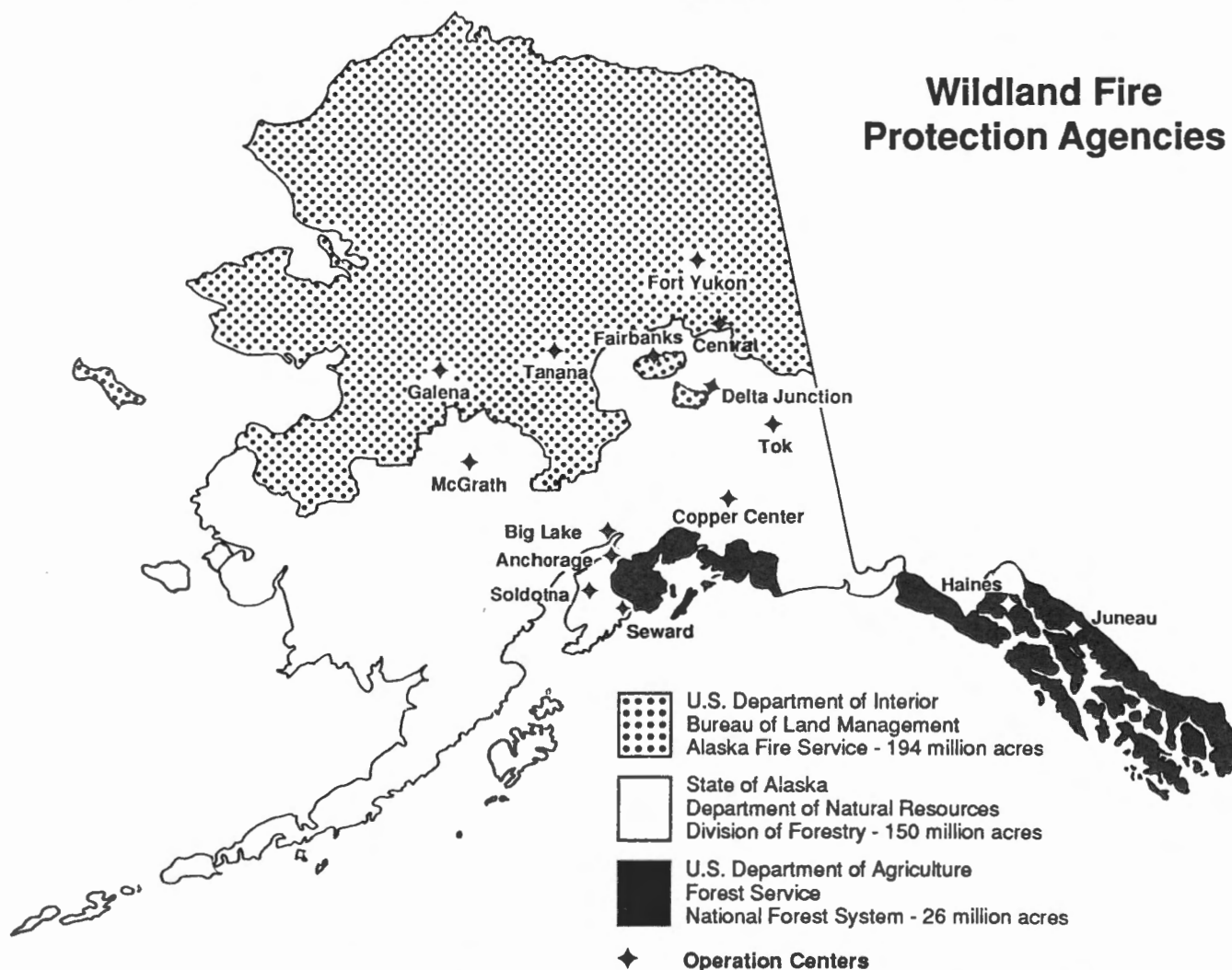
**Critical Protection:** Areas where life and property are present receive immediate and aggressive suppression efforts.

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

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

## Wildland Fire Protection Agencies





# 1993 Fire Season

The 1993 fire season was above average in both the number of incidents and in the total acres burned. Statewide, 869 fires burned 713,117 acres. Despite the heavy winter snowfalls throughout the state, spring brought very dry conditions and above normal temperatures. The number of human-caused fires was high. The summer remained very dry but with normal temperatures. The McGrath area received 419 percent of normal snowfall yet had the most acres burn during the year.

The spring fire season was the earliest, driest and warmest on record and resulted in 164 wildfires burning 1,605 acres. The interior experienced its third warmest fire season. Fortunately there were few large fires due to average precipitation.

The division's first two fires began on April 17 in the Mat-Su area, followed by 27 more during the month. The majority of the April fires occurred in the Mat-Su area and on the Kenai Peninsula. The dry conditions continued into May, contributing to an additional 135 wildfires—72 in the Fairbanks area, 24 on the Kenai Peninsula and 22 in the Mat-Su area. The remaining 17 fires were located in the Delta, Copper River and Tok areas.

In June, 110 fires burned nearly 25,000 acres. The Fairbanks area had the most with 34, followed by the Mat-Su, McGrath and Kenai areas. The McGrath area accounted for 99 percent of the acres burned in June. Fire activity increased in July with 186 fires burning 65,000 acres. Fairbanks area led with 47 fires, followed by Mat-Su and Kenai. McGrath accounted for 70 percent of the acreage burned during the month of July. There was a dramatic drop in fire activity in August with 60 fires burning less than 22 acres, the majority in the Fairbanks and Mat-Su areas. In September, 13 fires burned less than two acres. Most of these were caused by hunting activities near the road system.

The major cause of fires for the division was lightning, which started 105 wildfires during the 1993 fire season. There were only 11 lightning-caused fires during the 1992 season. These 105 fires burned 118,500 acres and accounted for 20 percent of the division's fire load, a four percent increase above the average fire season. The remaining 430 wildfires were human-caused and burned 1,600 acres throughout the division's protection area.

Most of the acres burned by human-caused fires were in the Delta area. One agricultural burn escaped and burned 1,300 acres.

**The Division of Forestry** had a total of 535 wildfires, encompassing 120,233 acres, on land under its protection. This accounted for 61 percent of the total number of wildfires and 17 percent of the acres burned in Alaska.

**The Alaska Fire Service** protection area accounted for 26 percent of the fires in 1993 and 82 percent of the acres burned. Of these 224 fires, 166 were ignited by lightning and burned 592,600 acres. Human-caused fires burned 400 acres.

**The U.S. Forest Service** protection area had 12 percent of the total fires in Alaska and less than one percent of the total acres burned. Southeast Alaska was unusually dry through most of the summer, resulting in a record-breaking 125 wildland fires for the season. The Haines area, which averages only one fire per year, had 15 fires. Open burning bans were put in effect for much of the late summer and loggers were put on a "hoot-owl" shift, meaning no work was done during the heat of the day when fire danger was most extreme.

The McGrath area had the only two project fires in Alaska during the 1993 fire season. Both occurred on U.S. Fish & Wildlife refuges near Aniak in full protection categories.

The Discovery Fire, ignited by lightning on June 2, quickly grew to 15,000 acres by June 4. The fire was not attacked initially due to its erratic behavior and because it was located in a modified protection area. There were other fires in the area with higher priority. When the fire quickly burned into a full protection area, suppression actions were initiated. On June 5 an interagency management team arrived to take control actions on the fire, which had grown to 17,000 acres. On June 10 the fire was contained at 23,500 acres and declared out on July 15.

The Pole Fire, ignited by lightning on July 19, was aggressively attacked on the day of detection. Air tankers, helitack crews and smokejumpers attempted to contain it in its early stages. That evening the fire required an interagency management team and several additional personnel as it had increased to more than two miles in diameter. On August 5 the fire was contained at 11,500 acres and declared out on September 24.

## Alaska fire statistics for 1993

### Fires by protection area:

Division of Forestry	61%
Alaska Fire Service	26%
U.S. Forest Service	13%

### Human-caused fires by protection area:

Division of Forestry	72%
Alaska Fire Service	10%
U.S. Forest Service	18%

# 1993 Fire Statistics

Fires statewide: 869

Acres burned: 713,116.7

## Fire Activity by Landowner

Landowner	Number	Acres
State	191	116,871.2
Borough/City	32	59.5
Private	301	1,550.9
Bureau of Land Mgmt.	66	300,838.4
National Park Service	22	40,028.9
Fish & Wildlife Service	53	166,381.8
Bureau of Indian Affairs	7	26.2
Native Claims Act Lands	66	85,714.3
Military	36	1,535.3
Canada	1	.2
Forest Service	94	110.0
<b>Total</b>	<b>856</b>	<b>713,116.7</b>

## 1993 Fires by Cause on State Protected Land

	Number	Acres
Lightning	105	118,536.7
Smoking	25	12.1
Campfires	98	30.9
Field/debris	87	1,515.0
Children	52	22.2
Fireworks	28	5.3
Equipment use	13	11.3
Incendiary/arson	3	.3
Other	124	99.6
<b>Total</b>	<b>535</b>	<b>120,233.4</b>

## Emergency Firefighter Wages

Year	State	Federal	Total
1980-85	4,689,081	71,117,288	14,551,014
1986	2,515,750	2,832,208	5,347,958
1986 <sup>1</sup>	561,770	—	561,770
1987	646,674	5,352,799	5,999,473
1987 <sup>2</sup>	643,932	—	643,932
1988	4,474,107	5,146,861	9,620,968
1988 <sup>3</sup>	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
<b>Total</b>	<b>\$33,474,105</b>	<b>\$36,169,958</b>	<b>\$69,644,063</b>

<sup>1</sup> Special appropriation due to Fair Labor Standards Act.

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

<sup>3</sup> 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
1970	40
1973	6
1981	18
1982	4
1985	39
1986	22
1987	59
1988	54
1989	61
1990	7
1991	0
1992	5
1993	0

\* Wages are paid by other states or suppression agencies.

# 1993 Fires by Area and Protection Level

## State Protected

Area	Critical		Full		Modified		Limited		Total	
	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres
Tok	4	0.4	9	65.3	3	180.6	5	4,195.2	21	4,441.5
Delta	17	13.3	9	1,739.5	0	0	0	0	26	1,752.8
Fairbanks	142	82.9	19	25.3	7	2,582.0	8	12,688.0	176	15,378.2
Val/Copper River	4	1.3	14	2.4	7	25.7	5	176.6	30	206.0
Anch/Mat-Su	96	50.1	20	113.6	4	0.9	1	0.1	121	164.7
Kenai/Kodiak	70	26.7	19	11.2	5	4.6	0	0	94	42.5
Southwest	2	1.1	13	26,914.1	10	10,323.9	27	61,004.8	52	98,243.9
Haines	2	0.2	11	3.2	2	0.4	0	0	15	3.8
<b>Total</b>	<b>337</b>	<b>176.0</b>	<b>114</b>	<b>28,874.6</b>	<b>38</b>	<b>13,118.1</b>	<b>46</b>	<b>78,064.7</b>	<b>535</b>	<b>120,233.4</b>

## U.S. Forest Service Protected

Area	Critical		Full		Modified		Limited		Total	
	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres
<b>Total</b>	<b>0</b>	<b>0</b>	<b>110</b>	<b>248.3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>110</b>	<b>248.3</b>

## Alaska Fire Service Protected

Area	Critical		Full		Modified		Limited		Unplanned		Total	
	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres
Galena	0	0	16	83.5	13	1,407.9	27	133,162.6	0	0	56	134,654.0
Tanana	1	0.1	21	17,756.6	25	21,112.4	43	67,671.1	7	85.2	97	106,625.4
Up. Yukon	3	3.9	12	929.3	12	199,970.4	39	150,444.2	5	7.8	71	351,355.6
<b>Total</b>	<b>4</b>	<b>4.0</b>	<b>49</b>	<b>18,769.4</b>	<b>50</b>	<b>222,490.7</b>	<b>109</b>	<b>351,277.9</b>	<b>12</b>	<b>93.0</b>	<b>224</b>	<b>592,635.0</b>

## Statewide

Critical		Full		Modified		Limited		Unplanned		Total	
No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres	No.	Acres
341	180.0	273	47,892.3	88	235,608.8	155	429,342.6	12	93.0	869	713,116.7

## Fire Protection and Prevention

### Cooperative Fire Protection Agreement

The Cooperative Fire Protection Agreement was signed by the DNR Commissioner and the Bureau of Land Management's State Director. The agreement reduces organizational requirements and duplication of services. It also enables agencies to share suppression forces, aircraft, training, communication networks and equipment. This results in an estimated savings to the state of \$6.7 million annually and a comparable savings to the federal government.



Helitack crew with standard equipment used for initial attack.



## Grants for Rural Communities

The division administers Rural Community Fire Protection grants from the U.S. Forest Service. Volunteer fire departments serving communities of under 10,000 people may apply for grants of up to \$5,000 on a 50/50 cost share basis to organize, train and equip fire protection units.

The 42 applications for grants were a slight decrease from the 45 received in 1992. The total amount requested was \$153,289. The division approved 22 grants to fund training and to purchase pumps, radios, protective clothing, fire extinguishers, smoke detectors, self-contained breathing apparatus, fire hose and other supplies. Four of the grantees had never received a RCFP grant in the past.

In addition to the grants, the division issued fire stores and equipment valued at \$141,252 to volunteer fire departments.

Department	Grant Amount
Anderson	\$2,500
Atka	1,200
Bristol Bay	3,263
Chena Goldstream	5,000
Copper Center	2,850
Chugiak	4,997
Delta Junction	5,000
Dillingham	5,000
Homer	5,000
Houston	1,572
Kasaan	3,250
Kenny Lake	3,071
Ketchikan	5,000
King Cove	2,250
Klawock	5,000
Meadow Lakes	5,000
Ninilchik	3,925
Port Alexander	620
Seldovia	5,000
Sutton	2,040
Tanana	2,201
Whale Pass	2,573
<b>Total</b>	<b>\$76,312</b>

Big Lake Area fire fighters save a home from a fire started by a child. The fire was extinguished after burning to within a few feet of the home.

## Fairbanks Area Fire Prevention

The Fairbanks Area, with the help of Smokey Bear, held wildfire prevention programs in 25 schools in Fairbanks. This involved 5,800 students in kindergarten through third grade and 270 teachers. Each student received a white spruce seedling. Foresters took their fire prevention message to 10 other special events, such as the Tanana Valley Fair and local media presentations.

The area office issued 2,400 burn permits, 41 warnings for burning violations, and citations to 24 people. One citation resulted in a jury trial in which the defendant was found guilty on two counts of illegal burning.

An article written by forester Mike McGowan entitled "Can Cooperative Efforts Help Reduce Wildfire?" appeared in the special 50th anniversary edition of *Fire Management Notes* in September. The article chronicled the very successful prevention program in the Fairbanks area.

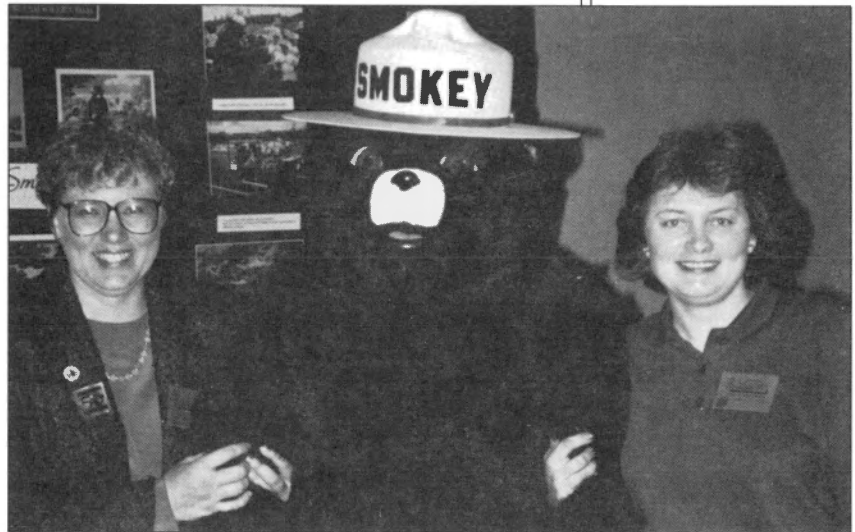
## Forestry Addresses Wildland Fire Danger in Anchorage

Forestry staff met with the Anchorage mayor to address concerns about spruce bark beetles and wildland fire danger. Discussions concerned fire danger due to fuel types and changes in vegetation, identifying and removing hazardous trees, and long-term forest health and management. Fire management staff described the impacts of changes in vegetation and fuel types on fire danger and behavior.

Discussion of ways to improve cooperation in preparing for a disastrous fire led to a simulated mutual aid fire exercise in August. The division, municipality, Anchorage International Airport, Fort Richardson and Elmendorf Air Force Base participated. The exercise involved responding to a fire burning in spruce on the Anchorage hillside. Initial attack resources from the division included Big Lake helitack, engines and an air tanker.

## Fire Prevention Video

The fire management staff worked with the governor's media center to develop a 12-minute video on the state's fire protection program. The video emphasizes how the program protects Alaska residents and their property from fire. It includes interviews with residents who have experienced the immediate potential of losing their homes to fire, providing a personal view of the impact fire can have on people statewide.



Cindy Forrest-Elkins, Division of Forestry Training Coordinator (right), and Cathy Scofield, U.S. Forest Service, began preparations for the nationwide celebration of Smokey Bear's 50th birthday in 1994.



Kenai/Kodiak Area Forestry promotes fire prevention in a parade celebrating Soldotna Progress Days.





Jim Eleazer, Anchorage/Mat-Su Area Forester and Dick Malchow, Tok Area Forester, prepare for the fire season by participating in a Public Information Officer class.

## Fire Management Training

### First EFF Type I Crew Certified

The Division of Forestry, in cooperation with the Copper River Native Association, sponsored the state's first Emergency Fire Fighting crew at the type I level this year. To accomplish this, the Copper River Area Forester and staff provided the training needed to meet or exceed all minimum standards for training found in the National Interagency Hotshot Crew Operational Guide. The Tazlina Type I Crew has shown great initiative and persistence in pursuing its goal of becoming a certified type I crew.

### Fire Management Workshop

Forestry personnel participated in a Fire Management Workshop held in Fairbanks that covered a variety of topics including ecosystems and fire management, wildland/urban interface, smoke management, and tactics and techniques. The three-day workshop was attended by 89 people responsible for fire suppression.



Aviation Chief Bud Graham and an FEPP T-28, which is used for fire detection.

# Staff Recognition

## New Perspectives Award

The Division of Forestry received a New Perspectives Award from the U.S. Forest Service. The plaque was awarded in appreciation for the division's support of the Cooper Landing Working Group, which devised methods for suppressing the spruce bark beetle infestation and its negative impacts on the community.

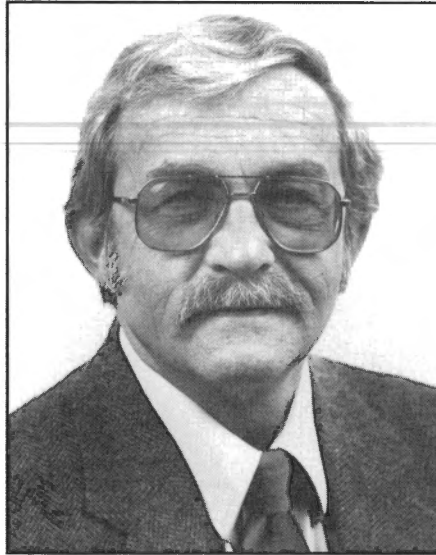
Fire Management Officer John See was recognized for completing a GIS-based fire behavior analysis of the Cooper Landing area. Kenai/Kodiak Area Forester Jim Peterson also received an award for his participation in the working group and the support he provided to it.

The Cooper Landing Working Group received the top national award under the Forest Service's New Perspectives Program for integrating science and management, making flexible responses to resource challenges and enhancing partnerships. The awards were presented to the division and to John and Jim by Associate Chief of the U.S. Forest Service George Leonard.

## Fire Management Staff Complete Advanced Training

Fire Operations Forester Joe Stam completed the highest level national course in the Incident Command System for managing wildland fires and is now qualified as a type I incident commander. There are 18 type I teams in the United States, which are deployed on a rotating basis for action anywhere in the nation.

Lynn Wilcock and Jim Couckuyt completed the national Advanced Incident Management training. This is a prerequisite to Incident Command System qualifications for serving on type I incident teams, which are deployed to the most complex situations. There are three type II interagency teams in Alaska.



Fire Management Chief Frenchie Malotte.

## Fire Management Chief Serves as Officer of Fire Organizations

Frenchie Malotte, Chief of Fire Management, served as chairman of the Alaska Multi-Agency Coordinating (MAC) Group. The group is formed under charter to coordinate interagency fire suppression principles and policies in Alaska. It is also empowered to adjust protection program requirements and establish statewide priorities when it is necessary to depart from normal protection standards. Membership is from agencies with authority to provide wildland fire protection and agencies with resource and land management responsibilities affected by wildland fire protection.

Frenchie was also elected an executive officer to the Western State Fire Managers. The group works under charter from the Council of Western State Foresters to provide detailed analysis and recommendations on fire issues that affect the western states. As executive officer, Frenchie represents the states of Alaska, Hawaii, California, Nevada, Oregon and Washington.



Deputy State Forester Dean Brown.



## Dean Brown is Second Woman Ever to Serve as State Forester

Deputy State Forester Dean Brown became the second woman in the country ever to serve as a state forester, according to the National Association of State Foresters. Dean was Acting State Forester for Alaska from December 1, 1992 until Tom Boutin was appointed State Forester on March 18, 1993. The first female state forester took office in Maine in October, 1992.

## Interior Forester Chairs SAF

Interior Region Forester Les Fortune was named chair-elect of the Alaska Chapter of the Society of American Foresters. During his term as chair, Alaska will host the national/international meeting of SAF in Anchorage in September 1994. Les has played an important leadership role in the extensive preparations necessary for such an important event.

## Where are They Now?

The photo at left was taken in June 1978 at a safety meeting near Big Lake. The Mat-Su forest technicians at that time were (left to right) Perez, Cole, Sorensen, Plate, Rogers, Wilcock and Gronewold. Five of the seven can still be accounted for after 15 years. Dave Perez works for DNR in the State Pipeline Coordinator's Office and Mark Gronewold is an active Emergency Fire Fighter in the Mat-Su Valley. The others still work for the Division of Forestry: Frank Cole at Fort Wainwright, Ric Plate in Soldotna and Lynn Wilcock in Big Lake.

### Staff Training in 1993

Type	Courses	Participants	Instructors
Emergency fire fighter	10	311	24
Wildfire for fire departments	4	62	4
Initial attack	8	120	22
Extended attack	4	13	3
Fire management	30	200	12
First aid and safety	23	298	--
Project Learning Tree	16	221	1
Human resource development	2	5	--
<b>Totals</b>	<b>97</b>	<b>1,230</b>	<b>66</b>

# Citizen Advisory Groups

## 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 assn., 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 Sheperd, general public, Fairbanks

Edmond Packee, forestry profession, Fairbanks

John "Chris" Maisch, native community, Fairbanks

Ron Ricketts, business community, Fairbanks

Robert Fox, outdoor recreation, Fairbanks

David Nester, private forest user, Fairbanks

Sylvia Ward, environmental protection, Fairbanks

Tyler Conkle, forest industry, Delta Junction

Ron Rasmussen, forest industry, Fairbanks

Samantha Castle Kirstein, hunting, fishing, trapping, Fairbanks

James Barker, mining industry, Fairbanks

## Forest Stewardship Coordinating Committee

Steve Bush, U.S. Forest Service, Anchorage

Steve Planchon, The Nature Conservancy, Anchorage

Karen Lee, ASCS, Palmer

John Mahorchich, Kenai Peninsula Borough, Soldotna

John Foss, U.S. Forest Service, Juneau

Tom Ward, Soil Conservation Service, Anchorage

Dave Horton, Bureau of Indian Affairs, Juneau

Ted Smith, Mat-Su Borough, Willow

Loisanne Reeder, Susitna Valley Assn., Anchorage

Jim Carter, Soil & Water Conservation Board, Willow

Tony Gasbarro, Alaska Cooperative Extension, Fairbanks

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

Troy Rhinehart, Alaska Forest Assn., Ketchikan

## 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/right-of-way, Fairbanks

Kenneth Suel, small community service, Chuathbaluk

Carol Sanner, community forestry and beautification, Girdwood

Ray Dinger, industry/business, Delta Junction

Tony Gasbarro, Alaska Cooperative Extension, Fairbanks

Cathy Wright, member-at-large, Eagle River

Douglas Crevensten, member-at-large, Fairbanks

Ole Andersson, member-at-large, Soldotna

Suzanne Little, member-at-large, Soldotna

Melanie Fullman, member-at-large, Ketchikan

# Fiscal Year 1993 Actuals<sup>1</sup>

Funding Sources	Forest Management <sup>2</sup>	Fire Suppression	Total
General Funds	\$8,844.7	\$7,743.3	\$16,588.0
Federal Receipts	881.3	3,069.0	
GF/ Program Receipts	89.8		89.8
Interagency Receipts	584.1	5.1	
Capital Improvement Receipts	118.2		118.2
<b>Totals</b>	<b>\$10,518.1</b>	<b>\$10,817.4</b>	<b>\$21,335.5</b>

Positions	Forest Management <sup>3</sup>	Fire Suppression
Permanent-Full Time	78	2
Permanent-Part Time	125	3
Non-Permanent	17	750
Staff Months	1,713	1,552

Resource Management	Northern Region	Southcentral Region	Southeast Region	Statewide	Total
Forest Practices Administration	\$ —	\$129.7	\$264.7	\$105.3	\$499.7
Small Timber Sales	530.9	62.3	9.3	18.5	621.0
Forest Stewardship	91.9	149.1	131.5	171.6	544.1
Board of Forestry	—	—	—	5.1	5.1
Forest Regeneration Center	—	—	—	267.8	267.8
Reforestation	363.6	53.6	78.5	—	495.7
Tanana Valley State Forest	4.2	—	—	—	4.2
Haines State Forest	—	—	63.9	—	63.9
<b>Subtotal</b>	<b>\$990.6</b>	<b>\$394.7</b>	<b>\$547.9</b>	<b>\$568.3</b>	<b>\$2,501.5</b>

## Fire Management

Pre-suppression	\$1,571.4	\$2,797.5	\$28.7	\$462.1	\$4,859.7
Rural Community Fire Prot./Fed	—	—	—	241.7	241.7
Anchorage School District Interns	—	41.8	—	—	41.8
<b>Subtotal</b>	<b>\$1,571.4</b>	<b>\$2,839.3</b>	<b>\$28.7</b>	<b>\$703.8</b>	<b>\$5,143.2</b>

## Forest Administration

Federal Coop. Forestry	—	—	—	\$639.6	\$639.6
Forest Administration	519.5	331.1	141.5	475.2	1,467.3
Unbudgeted RSAs	—	—	—	686.5	686.5
Program Receipts	—	—	80.0	—	80.0
<b>Subtotal</b>	<b>519.5</b>	<b>331.1</b>	<b>221.5</b>	<b>1,801.3</b>	<b>2,873.4</b>
<b>Total</b>	<b>\$3,081.5</b>	<b>\$3,565.1</b>	<b>\$798.1</b>	<b>\$3,073.4</b>	<b>\$10,518.1</b>

<sup>1</sup>All dollar figures are in thousands

<sup>2</sup>Includes the cost of fire pre-suppression

<sup>3</sup>Includes fire pre-suppression



# Fiscal Year 1994 Budget<sup>1</sup>

Funding Sources	Forest Management <sup>2</sup>	Fire Suppression	Total
General Funds	\$7,768.3	\$ —	\$7,768.3
Federal Funds	1,329.6	5,328.8	6,658.4
Capital Improvement Receipts	222.7	—	222.7
Interagency Receipts	23.0	—	23.0
Other Funds	—	3,616.6	3,616.6
<b>Totals</b>	<b>\$9,343.6</b>	<b>\$8,945.4</b>	<b>\$18,289.0</b>

Positions	Forest Management <sup>3</sup>	Fire Suppression
Permanent-Full Time	69	6
Permanent-Part Time	113	16
Non-Permanent	17	750
<b>Total</b>	<b>199</b>	<b>772</b>
Staff Months	1,558	1,657

Renewable Resource Development & Sales	Northern Region	Southcentral Region	Southeast Region	Statewide	Total
Resource Management	\$1,221.0	\$302.2	\$304.1	\$541.2	\$2,368.5
Forest Practices Act	—	114.7	467.9	114.7	697.3
Board of Forestry	—	—	—	9.2	9.2
<b>Subtotal</b>	<b>\$1,221.0</b>	<b>\$416.9</b>	<b>\$772.0</b>	<b>\$665.1</b>	<b>\$3,075.0</b>

## Wildland Fire

### Protection Services

Pre-suppression	\$1,555.1	\$2,449.1	\$29.8	\$436.4	\$4,470.4
Rural Community Fire Prot./Fed	—	—	—	350.7	350.7
Anchorage School District Interns	—	40.9	—	—	40.9
<b>Subtotal</b>	<b>\$1,555.1</b>	<b>\$2,490.0</b>	<b>\$29.8</b>	<b>\$787.1</b>	<b>\$4,862.0</b>

### Forest Administration

Federal Coop. Forestry Assistance	—	—	—	\$978.9	\$978.9
Director's Office	—	—	—	427.7	427.7
<b>Subtotal</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>1,406.6</b>	<b>1,406.6</b>

<b>Total</b>	<b>\$2,776.1</b>	<b>\$2,906.0</b>	<b>\$801.8</b>	<b>\$2,858.8</b>	<b>\$9,343.6</b>
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<sup>1</sup>All dollar figures are in thousands

<sup>2</sup>Includes the cost of fire pre-suppression

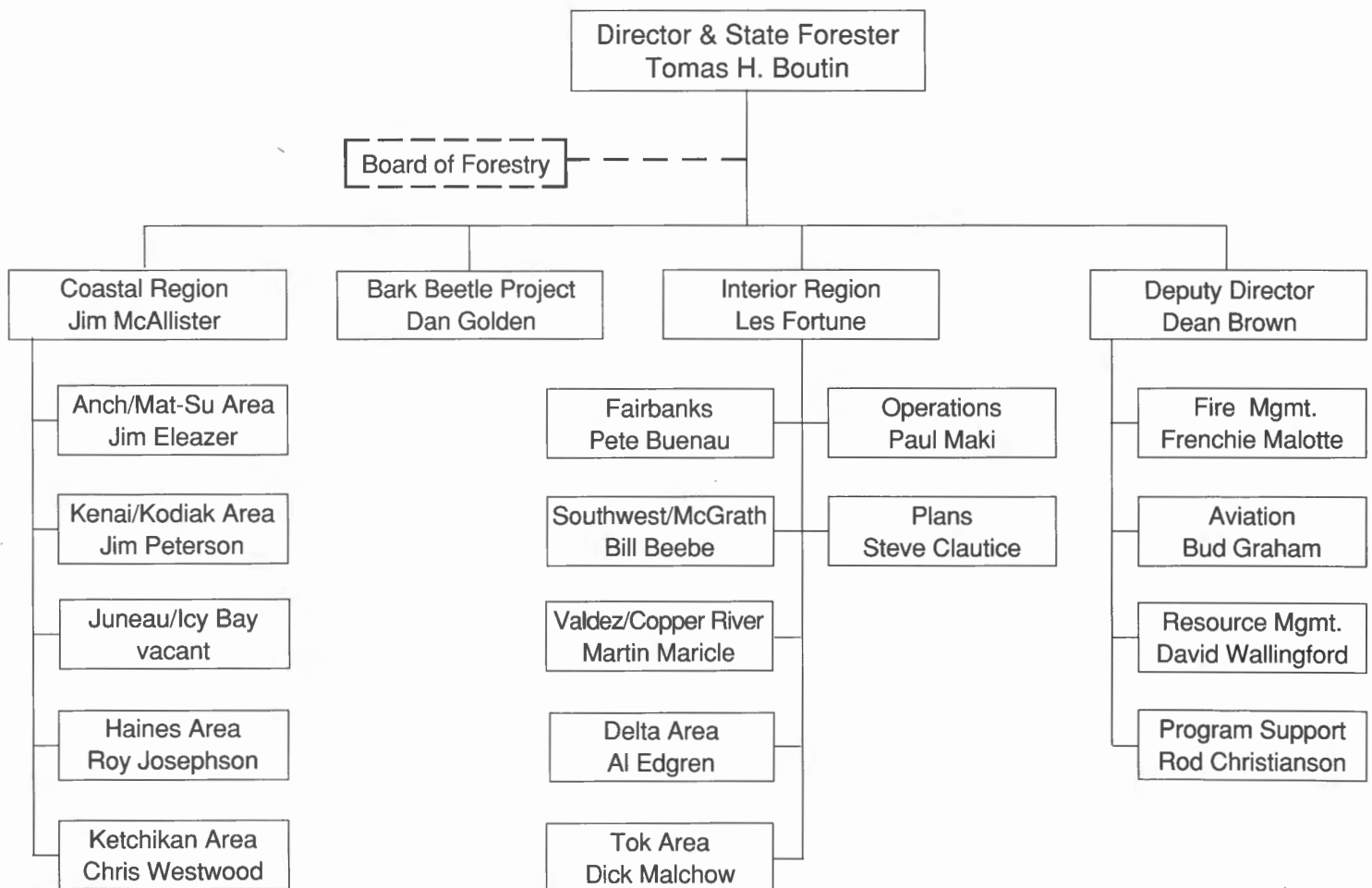
<sup>3</sup>Includes fire pre-suppression

# Fiscal Year 1994 Capital Budget Appropriations

(Conference Committee Senate Bill 183, Chapter 70, SLA93)

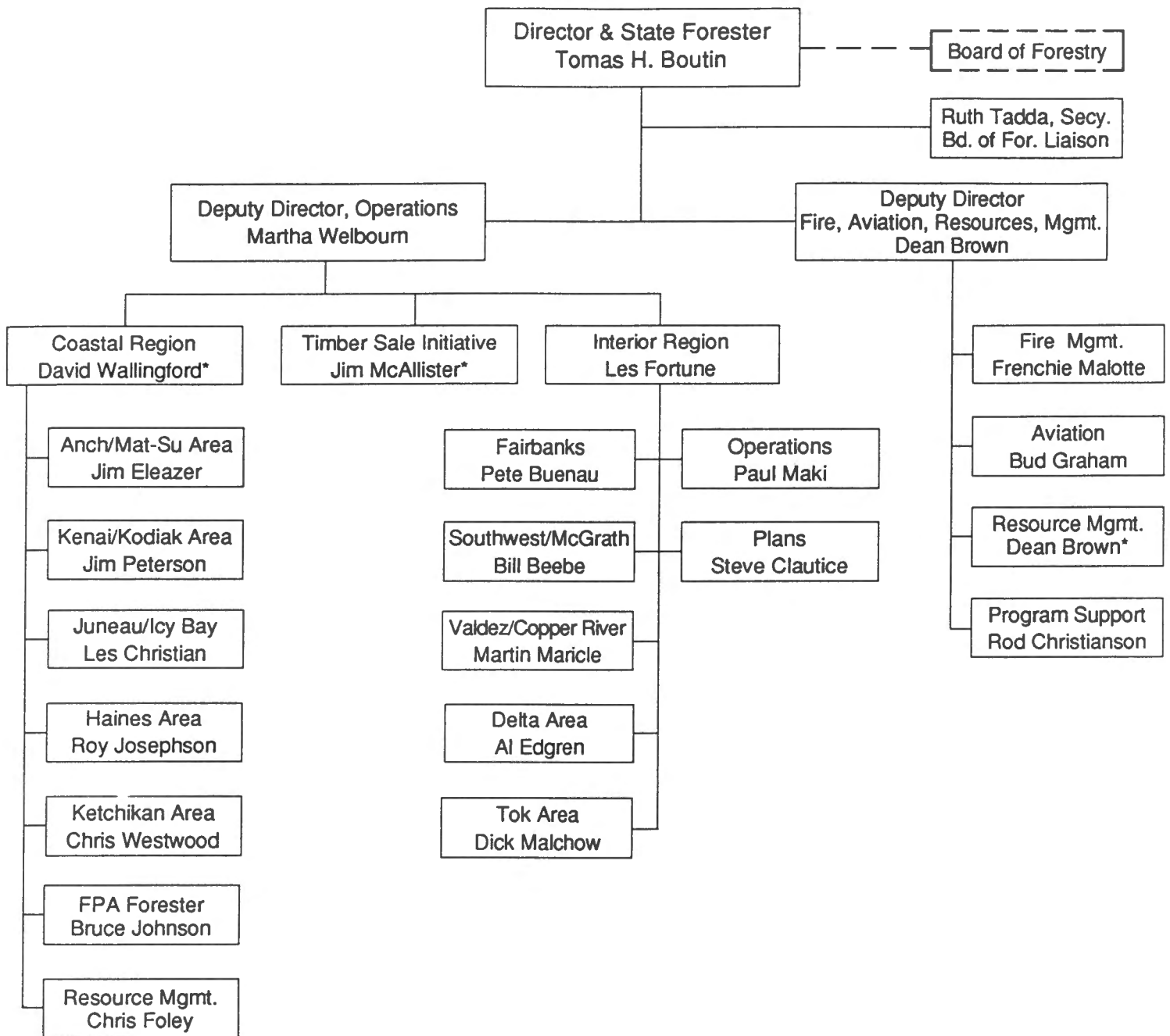
Project	Amount	
McGrath Airport Fuel Clean-up	\$123.0	470 Fund
Fire Radio Communications	\$150.0	GF
Tanana Valley Resource Development	\$405.0	GF
Forest Health Initiative	\$720.0	GF/Fed. matching
Forest Inventory	\$200.0	GF
Reforestation	\$200.0	Reforestation Fund
Quartz Lake Access Road	\$100.0	GF
Copper River Native Assn. Fire Break Construction	\$70.0	GF

## Division of Forestry Organization Chart December 1993



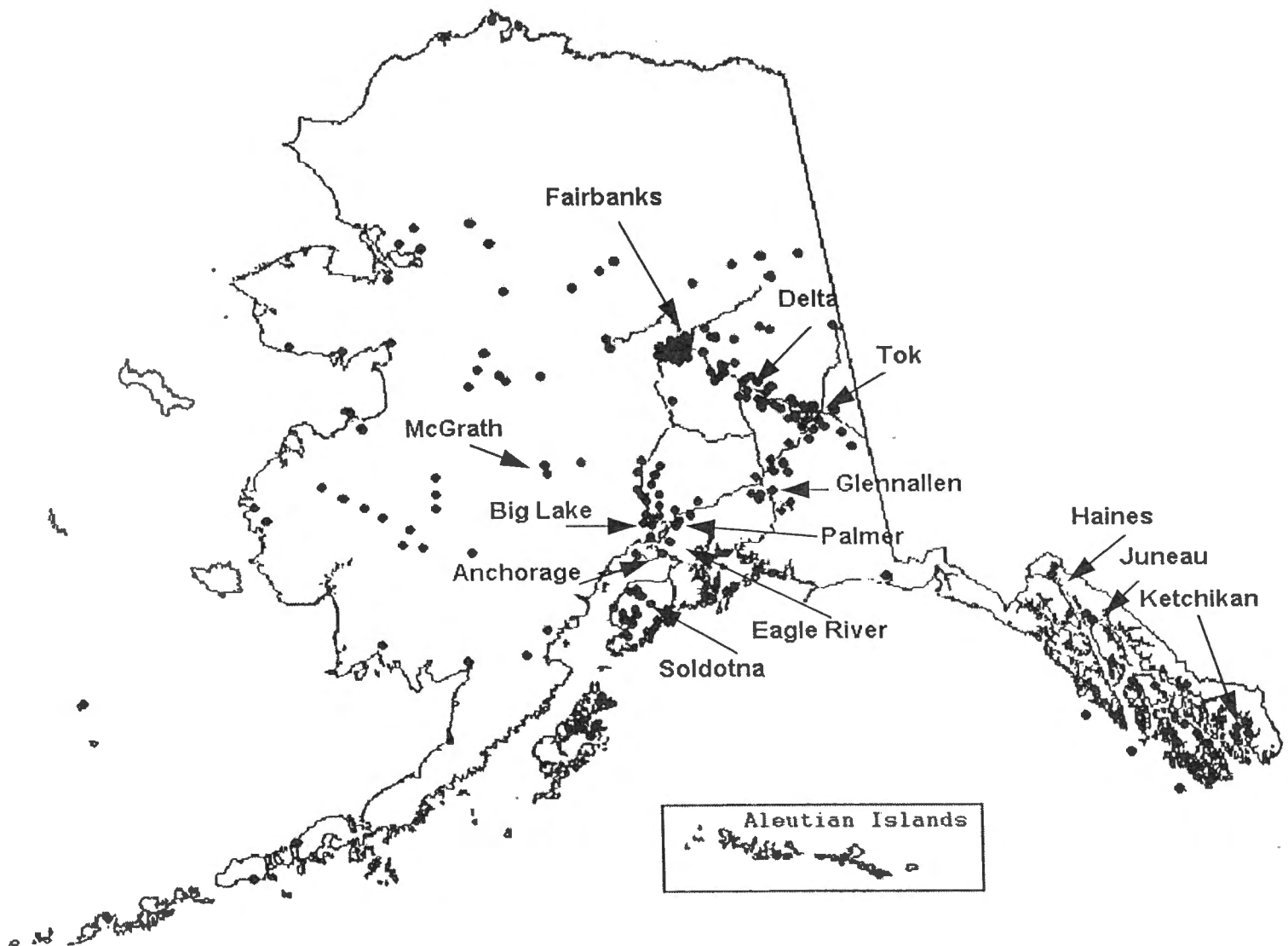
# Division of Forestry Organization Chart

April 1994



\*Temporary assignment

# Office Locations and Sites of Services Provided by the Division of Forestry



- 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

April 1994

## Director's Office

400 Willoughby Ave., 5th Floor  
Juneau, Alaska 99801  
465-3379 fax: 586-2754

### Director & State Forester

Tom Boutin, 762-2501

3601 C Street, Suite 1058  
P.O. Box 107005  
Anchorage, Alaska 99510-7005  
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  
P.O. Box 107005  
Anchorage, Alaska 99510-7005  
762-2121 fax: 561-2707  
John See, Fire Mgmt. Officer

### Fire Management Office - Fairbanks

3700 Airport Way  
Fairbanks, Alaska 99709  
451-2600 fax: 451-2690  
Jim Lewandoski, Fire Mgmt. Officer

## Coastal Region

400 Willoughby Ave., 5th Floor  
Juneau, Alaska 99801  
465-2491 fax: 586-2754  
Jim McAllister, Regional Forester

### 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., 5th Floor  
Juneau, Alaska 99801  
465-2491 fax: 586-2754  
Les Christian, Area Forester

### Icy Bay Field Office - Seasonal

P.O. Box 460  
Cordova, Alaska 99574  
424-3933  
Chris Foley, Area Forester

### Haines Area Office

P.O. Box 263 (Gateway Building)  
Haines, Alaska 99827  
225-3070 fax: 247-3070  
Roy Josephson, Area Forester

### Ketchikan Area Office

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

## Interior Region

3700 Airport Way  
Fairbanks, Alaska 99709  
451-2666 fax: 451-2690  
Les Fortune, Regional Forester

### Fairbanks Area Office

3700 Airport Way  
Fairbanks, Alaska 99709  
451-2601 fax: 451-2633  
Pete Buenau, Area Forester

### Southwest Area Office

Box 130  
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

### Delta Area Office

P.O. Box 1149  
(Mi. 267.5 Richardson Hwy.)  
Delta Junction, Alaska 99737  
895-4225 fax: 895-4934  
Al Edgren, Area Forester

### Tok Area Office

Box 10 (Mile 123 Glenn Hwy.)  
Tok, Alaska 99780  
883-5134 fax: 883-5135  
Dick Malchow, Area Forester



This publication was released by the Department of Natural Resources to provide information about the operations of the Division of Forestry during 1993. Four hundred twenty-five copies were printed in Anchorage, Alaska at a cost of \$6.54 per copy.