

MAINE STATE LEGISLATURE

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2003

Silvicultural Activities Report

including Annual Report on Clearcutting and Precommercial Activities

Compiled from the 2003 Landowner Reports and other survey instruments.
Data collected under the provisions of Title 12 MRSA §8885 and §8878-A

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Report Highlights

Harvesting and Land Use Changes

- 511,070 acres were harvested in 2003, a 9% decrease from 562,745 acres in 2002. Most of the decline in harvest acreage occurred on non-industrial lands.
- 481,315 acres were partially harvested in 2003, a 11% decrease from 539,225 acres in 2002.
- The number of harvests reported declined 9% from 5,150 to 4,743 harvests.

Clearcutting:

1. The total area clearcut increased, from 18,389 acres in 2002 to 24,021 acres in 2003. Clearcutting amounts to less than 5% of total harvested acres.
2. Landowners owning more than 100,000 acres in Maine created 96% of all clearcuts (22,953 acres).
3. Average clearcut size in 2003 was 25 acres. Landowners owning more than 100,000 acres had an average clearcut size of 27 acres. Landowners owning less than 100,000 acres had an average clearcut size of 13 acres. Two clearcuts larger than 75 acres were created in 2003.
4. The primary silvicultural reasons for clearcutting reported by large landowners were: (a) Removal of stands that, if partially harvested according to accepted silvicultural practice, are at high risk for windthrow due to factors such as soils, rooting depth, crown ratio or stem quality; (b) For areas where the retention of the residual overstory trees were at high risk of windthrow.

Land Use Changes:

- Harvesting to convert land from forest management to some other land use increased 12% from 5,131 acres in 2002 to 5,734 acres in 2003.

Precommercial Silvicultural Activities

Herbicide Use:

- For site preparation decreased 35%, from 1,690 acres in 2002 to 1,093 acres in 2003.
- To release crop trees from competing vegetation increased 9%, from 17,070 acres in 2002 to 18,663 acres in 2003.

Timber Stand Improvement (TSI):

- Precommercial thinning of young stands with spacing saws increased 41%, from 19,089 acres in 2002 to 26,894 acres in 2003. 98% of this activity was done by landowners owning more than 100,000 acres.

Planting:

- Tree planting increased 36%, from 7,926 acres in 2002 to 10,746 acres in 2003. 84% of the planting was by landowners owning more than 100,000 acres. The predominant species planted were spruce species.

Professional Assistance

- The harvest acres supervised by licensed foresters declined slightly. 71% of all harvest acres in 2003 had a licensed forester involved, compared to 76% of all harvests in 2002. Licensed Forester supervision on small woodlots (<= 100 acres) declined slightly from 27% in 2002 to 25% in 2003.

Statewide total harvesting volumes reported in the 2003 Wood processor Report corroborate the data reported in this report that harvesting activities in Maine declined in 2003.

2003 Harvesting and Land Use Changes

Commercial Harvest Information by Landowner Size and Type		Acres						
		Partial Harvests	Shelterwood			Clearcut	Land Use Change	Total Harvest
			Initial or Intermediate Entry	Final Entry	Sub-Total Shelterwood			
Ownership Type	Ownership Size							
Forest Industry woodlands	1 to 100 acres	0	0	0	0	0	0	0
	101 to 1,000 acres	135	0	0	0	0	0	135
	1,001 to 100,000 acres	3,088	2,334	608	2,942	209	25	6,264
	100,000 + acres	42,496	44,784	45,183	89,967	15,975	0	148,438
	SubTotal	45,719	47,118	45,791	92,909	16,184	25	154,837
Institutional Investor Timberlands	1 to 100 acres	0	0	0	0	0	0	0
	101 to 1,000 acres	0	0	0	0	0	0	0
	1,001 to 100,000 acres	320	990	0	990	0	0	1,310
	100,000 + acres	14,253	23,731	14,200	37,931	1,052	0	53,236
	SubTotal	14,573	24,721	14,200	38,921	1,052	0	54,546
Non-Industrial Land	1 to 100 acres	41,260	1,934	1,141	3,075	193	2,019	46,547
	101 to 1,000 acres	58,191	2,970	5,553	8,523	212	2,137	69,063
	1,001 to 100,000 acres	75,547	10,460	27,176	37,636	392	1,441	115,016
	100,000 + acres	15,496	29,132	7,076	36,208	5,926	0	57,630
	SubTotal	190,494	44,496	40,946	85,442	6,723	5,597	288,256
Other woodlands (Govt, etc.)	1 to 100 acres	92	7	20	27	15	29	163
	101 to 1,000 acres	1,437	95	20	115	0	49	1,601
	1,001 to 100,000 acres	2,747	1,430	139	1,569	47	33	4,396
	100,000 + acres	6,266	121	883	1,004	0	1	7,271
	SubTotal	10,542	1,653	1,062	2,715	62	112	13,431
2003 Totals:		261,328	117,988	101,999	219,987	24,021	5,734	511,070
Percent of 2003 Harvest:		51.13%	23.09%	19.96%	43.04%	4.70%	1.12%	100.00%
2002 Totals:		336,622	123,486	79,117	202,603	18,389	5,131	562,745
Percent Change from 2002 to 2003:		-22%	-4%	29%	9%	31%	12%	-9%

2003 Precommercial Activities and Professional Assistance

OwnershipType	Ownership Size	Precommercial Activities by Landowner Size and Type				Number of Reported Harvests	Licensed Forester Involvement by Landowner Size and Type	
		Acres					Number of Harvests	Total Acres
		Herbicide Use		TSI	Tree Planting			
Site Prep	Release							
Forest Industry woodlands	1 to 100 acres	0	0	0	0	0	0	0
	101 to 1,000 acres	0	0	0	0	3	1	25
	1,001 to 100,000 acres	30	0	0	17	41	22	3,802
	100,000 + acres	318	14,132	23,721	8,434	320	193	106,534
	Subtotal	348	14,132	23,721	8,451	364	216	110,361
Institutional Investor Timberlands	1 to 100 acres	0	0	0	0	0	0	0
	101 to 1,000 acres	0	0	0	0	0	0	0
	1,001 to 100,000 acres	0	0	0	0	13	13	1,310
	100,000 + acres	0	0	0	0	84	80	52,153
	Subtotal	0	0	0	0	97	93	53,463
Non-Industrial Land	1 to 100 acres	10	5	402	1,523	2,068	470	12,096
	101 to 1,000 acres	111	318	201	83	1,412	477	27,254
	1,001 to 100,000 acres	100	100	5	30	545	391	88,857
	100,000 + acres	524	4,108	2,561	651	148	141	55,970
	Subtotal	745	4,531	3,169	2,287	4,173	1,479	184,177
Other woodlands (Govt, etc.)	1 to 100 acres	0	0	0	0	10	4	62
	101 to 1,000 acres	0	0	0	0	29	21	1,362
	1,001 to 100,000 acres	0	0	4	8	37	29	4,102
	100,000 + acres	0	0	0	0	33	33	7,271
	Subtotal	0	0	4	8	109	87	12,797
2003 Totals:		1,093	18,663	26,894	10,746	4,743	1,875	360,798
2002 Totals:		1,690	17,070	19,089	7,926	5,150	1,950	424,325
Change from 2002 to 2003:		-35%	9%	41%	36%	-8%	-4%	-15%

Definitions:

Ownership Type

Forest Industry Land: Woodlands owned by a forest products industry; usually most of the wood harvested is used by that industry.

Institutional Investor Timberlands: Woodlands owned by organizations that hold assets as fiduciaries for the benefit of others.

Non-Industrial Land: Woodlands privately owned but NOT by a forest industry. These include private individuals and other non-forest product industries.

Other woodlands: Woodlands owned by other entities not listed above -- including local, state, federal, or tribal governments.

Types of Harvests

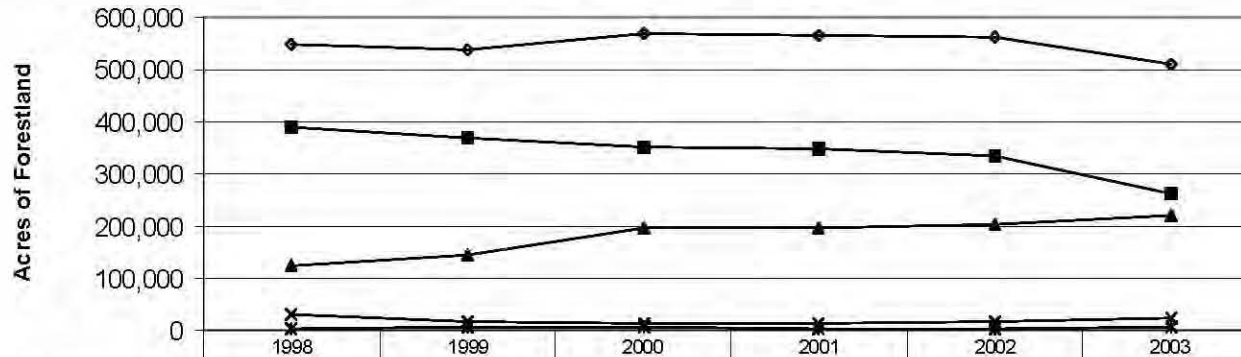
Partial Harvest: Harvest where trees are removed individually or in small (<5 acre) patches.

Shelterwood: Harvest of mature trees from a forest site in two or more stages. The first stage removes only a portion of the trees to allow establishment of regeneration before the remaining trees are removed in subsequent harvest.

Clearcut: Harvest on a site greater than 5 acres that results in a residual basal area of acceptable growing stock trees >4.5" DBH of less than 30 square feet per acre, unless after harvesting the site has a well-distributed stand of acceptable growing stock 3 feet tall for softwood and 5 feet for hardwoods (Overstory Removal). Refer to the latest copy of the Maine Forest Practices Act, Maine Forest Service Rules Chapter 20 for additional information.

Change of Land Use: Harvest conducted to convert forestland to another land use such as house lots, farm pastures, etc.

Harvesting Trends in Maine 1998-2003



◆ Total Harvest	549,632	537,333	569,470	565,312	561,587	511,070
■ Partial Harvest	389,509	368,355	353,230	349,594	335,501	261,328
▲ Total Shelterwood	124,236	144,857	197,013	196,792	202,603	219,987
✕ Clearcut	30,974	18,754	13,185	14,391	18,466	24,021
✱ Land Use Change	4,913	5,367	6,042	4,535	5,017	5,734

2003 Annual Report on Clearcutting and Precommercial Activities

Compiled from the 2003 Landowner Reports and other survey instruments. Data collected under the provisions of the Forest Resources Assessment Program, 12 MRSA § 8878-A

County	Large Landowners (own >100,000 acres)										All Other Landowners				All Landowners	
	Precommercial Activities		Clearcuts > 75 acres in size		Purpose for Clearcut (see explanation below)						Acres					
	Acres		#	Acres	Acres						TSI	Planted	Clearcut			Acres
	TSI	Planted			1	2	3	4	Sub Total	Avg. Size			Sub Total	Avg. Size		
Androscoggin	0	0	0	0	0	0	0	0	0	0	88	3	17	9	17	
Aroostook	16,352	4,595	0	0	240	0	7,684	0	7,924	26	27	1,507	165	13	8,089	
Cumberland	0	0	0	0	0	0	0	0	0	0	18	0	22	7	22	
Franklin	385	666	0	0	2,097	0	235	0	2,332	42	21	1	127	18	2,459	
Hancock	61	391	0	0	381	22	0	0	403	34	85	62	0	0	403	
Kennebec	0	0	0	0	0	0	0	0	0	0	5	2	0	0	0	
Knox	0	0	0	0	0	0	0	0	0	0	50	0	0	0	0	
Lincoln	0	0	0	0	0	0	0	0	0	0	45	0	12	12	12	
Oxford	950	392	2	450	3,167	0	129	113	3,409	48	40	35	10	5	3,419	
Penobscot	3,500	1,380	0	0	288	0	854	0	1,142	28	27	14	137	11	1,279	
Piscataquis	2,861	706	0	0	863	16	772	0	1,651	16	46	5	32	16	1,683	
Sagadahoc	0	0	0	0	0	0	0	0	0	0	0	5	15	15	15	
Somerset	1,406	823	0	0	3,958	0	1,849	0	5,807	21	88	4	70	9	5,877	
Waldo	0	0	0	0	0	0	0	0	0	0	40	24	316	17	316	
Washington	767	132	0	0	148	0	97	41	286	36	5	0	78	9	364	
York	0	0	0	0	0	0	0	0	0	0	27	0	67	34	67	
State Total:	26,282	9,085	2	450	11,142	38	11,620	154	22,953	27	612	1,661	1,068	13	24,021	

Purposes for creating clearcut:

1. Removal of poor quality, intolerant, under stocked, short lived or mature overstories where the retention of the residual overstory trees is not justified for further increase in value, as a source of seed, or for protection of the new stand.
2. Ecologically appropriate improvement or creation of wildlife habitat.
3. Removal of stands that, if partially harvested according to accepted silvicultural practice, are at high risk for windthrow due to factors such as soils, rooting depth, crown ratio or stem quality.
4. Harvesting of an existing plantation or other forest stand established by or previously treated with precommercial silvicultural activities.

Frequency Distribution of Clearcutting

for Large Landowners who own more than 100,000 acres

2003 Clearcut as
percent of statewide
ownership

of Landowners

Clearcut Acres

0% - 0.001%	13	320
0.001%-0.25%	9	3,498
0.26%-0.75%	3	14,586
0.76%-1.00%	1	4,550