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2011 Silvicultural Activities Report

Maine Forest Service
Forest Policy and Management Division

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2011 Silvicultural Activities Report

including Annual Report on Clearcutting and Precommercial Activities

Compiled from the 2011 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

- 444,339 acres were harvested in 2011, a slight increase from 443,169 acres in 2010.
- 414,667 acres were "partially harvested" (partial and shelterwood totals) in 2011, a -1% decrease from 420,689 acres in 2010.
- The number of harvests reported increased to 5,759 from 5,663.

Clearcutting:

1. The total area clearcut increased, from 19,301 acres in 2010 to 24,463 acres in 2011. Clearcutting amounted to 5.5% of total harvested acres.
2. Landowners owning more than 100,000 acres in Maine created 94% of all clearcuts (22,945 acres).
3. Average clearcut size in 2011 was 23 acres. Landowners owning more than 100,000 acres had an average clearcut size of 36 acres. Landowners owning less than 100,000 acres had an average clearcut size of 14 acres. 16 clearcuts larger than 75 acres were created in 2011.
4. The primary silvicultural reason for clearcutting reported by large landowners was the 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.

Land Use Changes:

- Harvesting to convert land from forest management to some other land use increased 64% from 3,179 acres in 2010 to 5,209 acres in 2011.
- The increase in harvested acres for land use change under the Other Woodlands ownership type is associated with the Central Maine Power transmission project.

Precommercial Silvicultural Activities

Herbicide Use:

- For site preparation increased 666%, from 222 acres in 2010 to 1,701 acres in 2011.
- To release crop trees from competing vegetation decreased 8%, from 7,963 acres in 2010 to 7,298 acres in 2011.

Timber Stand Improvement (TSI):

- Precommercial thinning of young stands with spacing saws increased 10%, from 6,175 acres in 2010 to 6,765 acres in 2011.
91% of this activity was done by landowners owning more than 100,000 acres (6,188 acres).

Planting:

- Tree planting increased 105%, from 2,067 acres in 2010 to 4,238 acres in 2011.
97% of the planting was by landowners owning more than 100,000 acres (4,093 acres).

Forester Involvement

- In 2011, licensed foresters supervised harvesting on 326,277 acres, compared to 304,299 acres in 2010.
73% of all harvest acres in 2011 had a licensed forester involved; a slight increase from 2010 (68%).
Licensed Forester supervision occurred on 23% (665 out of 2,880 harvests) of the harvests on family forests (<= 100 acres) in 2011. This is a slight decrease from 25% in 2010 (588 out of 2,339 harvests).

2011 Harvesting and Land Use Changes

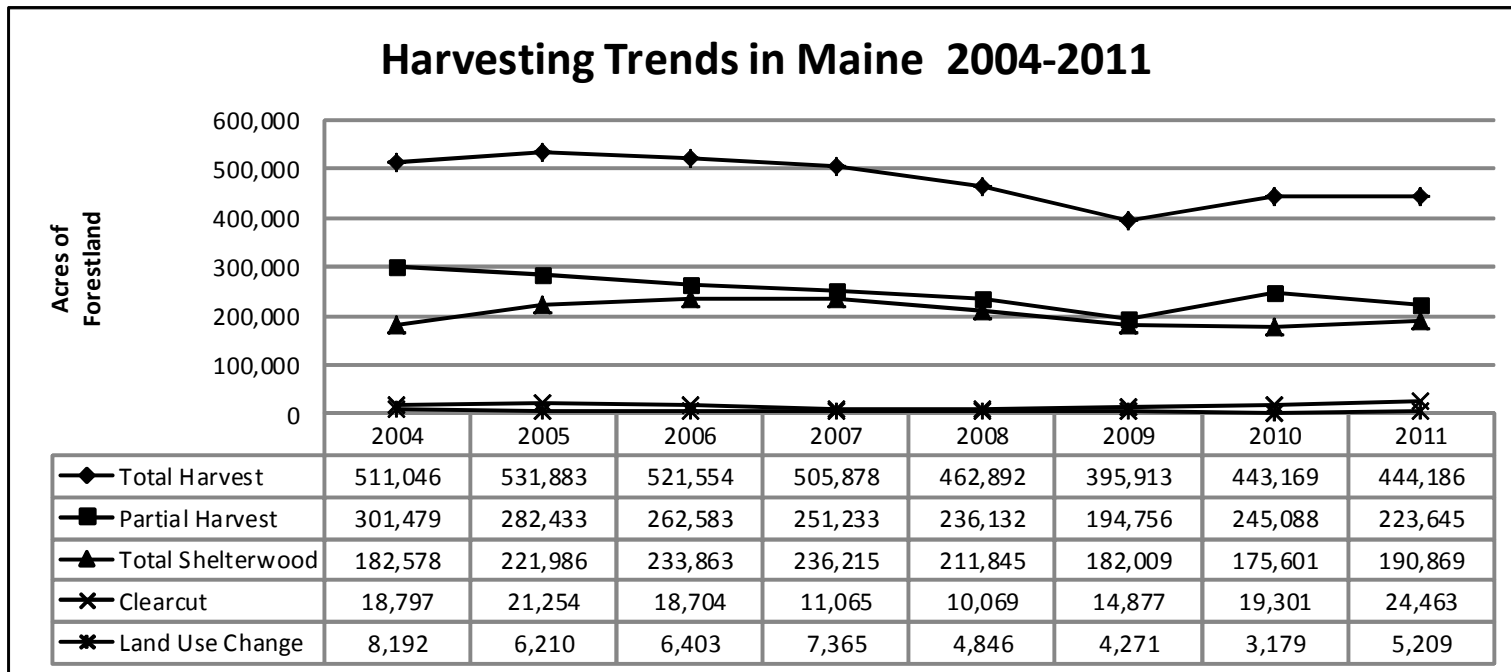
Commercial Harvest Information by Landowner Size and Type		Acres						
		Partial Harvests	Shelterwood			Clearcut	Land Use Change	Total Harvest
			Initial or Intermediate Entry	Final Entry	Total Shelterwood			
Ownership Type	Ownership Size							
Forest Industry Woodlands	1 to 100 acres	25	0	0	0	14	14	53
	101 to 1,000 acres	90	15	70	85	0	10	185
	1,001 to 100,000 acres	2,777	23	167	190	0	16	2,983
	100,000 + acres	14,562	11,770	24,178	35,948	6,105	61	56,676
	SubTotal	17,454	11,808	24,415	36,223	6,119	101	59,897
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	899	236	849	1,085	102	1	2,087
	100,000 + acres	21,909	24,122	32,429	56,551	9,981	0	88,441
	SubTotal	22,808	24,358	33,278	57,636	10,083	1	90,528
Non-Industrial Land	1 to 100 acres	50,728	2,518	3,612	6,130	474	1,536	58,868
	101 to 1,000 acres	65,253	4,569	5,035	9,604	557	794	76,208
	1,001 to 100,000 acres	33,346	8,978	13,794	22,772	311	354	56,783
	100,000 + acres	20,594	34,256	20,896	55,152	6,859	448	83,053
	SubTotal	169,921	50,321	43,337	93,658	8,201	3,132	274,912
Other Woodlands (Govt, etc.)	1 to 100 acres	107	20	0	20	0	46	173
	101 to 1,000 acres	2,199	187	101	288	5	15	2,507
	1,001 to 100,000 acres	1,090	554	936	1,490	55	1,870	4,505
	100,000 + acres	10,219	419	1,135	1,554	0	44	11,817
	SubTotal	13,615	1,180	2,172	3,352	60	1,975	19,002
2011 Totals:		223,798	87,667	103,202	190,869	24,463	5,209	444,339
Percent of 2011 Harvest:		50.37%	19.73%	23.23%	42.96%	5.51%	1.17%	100.00%
2010 Totals:		245,088	77,206	98,395	175,601	19,301	3,179	443,169
Percent Change from 2010 to 2011:		-9%	14%	5%	9%	27%	64%	0%

2011 Precommercial Activities and Professional Assistance

Ownership Type	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	2	1	28
	101 to 1,000 acres	0	0	0	0	3	2	150
	1,001 to 100,000 acres	0	0	0	0	28	21	2,076
	100,000 + acres	0	5,277	2,163	3,144	100	96	56,678
	Subtotal	0	5,277	2,163	3,144	133	120	58,932
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	8	8	2,087
	100,000 + acres	0	820	2,159	429	191	189	86,713
	Subtotal	0	820	2,159	429	199	197	88,800
Non-Industrial Land	1 to 100 acres	10	23	271	67	2,885	667	15,971
	101 to 1,000 acres	5	4	241	26	1,672	611	31,034
	1,001 to 100,000 acres	0	0	65	52	385	244	32,217
	100,000 + acres	381	1,174	1,857	520	271	250	81,118
	Subtotal	396	1,201	2,434	665	5,213	1,772	160,340
Other Woodlands (Govt, etc.)	1 to 100 acres	0	0	0	0	15	8	117
	101 to 1,000 acres	0	0	0	0	50	33	2,024
	1,001 to 100,000 acres	1,305	0	0	0	82	73	4,255
	100,000 + acres	0	0	9	0	72	70	11,809
	Subtotal	1,305	0	9	0	219	184	18,205
2011 Totals:		1,701	7,298	6,765	4,238	5,764	2,273	326,277
2010 Totals:		222	7,963	6,175	2,067	5,663	2,190	304,299
Change from 2010 to 2011:		666%	-8%	10%	105%	2%	4%	7%

Definitions:

- Ownership Type**
- Forest Industry Land:** Woodlands owned by a forest products industry; usually most of the wood harvested is used by that industry.
 - Investor Timberlands** Woodlands owned by organizations, including Timberland Investment Management Organizations (TIMOs) and Real Estate Investment Trusts (REITs) that hold timberland 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 larger 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 Service Rules Chapter 20 for additional information. It can be found on the Maine Forest Service website at http://www.state.me.us/doc/mfs/rules_regs/index.htm
 - Change of Land Use:** Harvest conducted to convert forestland to another land use such as house lots, farm pastures, etc.



2011 Annual Report on Clearcutting and Precommercial Activities

Compiled from the 2011 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	Clearcut	
Androscoggin	0	0	0	0	0	0	0	0	0	0	9	0	35	7	35	
Aroostook	2,102	3,421	4	558	5,856	0	77	97	6,030	35	26	22	324	14	6,354	
Cumberland	0	0	0	0	0	0	0	0	0	0	10	6	16	8	16	
Franklin	0	0	4	567	1,199	0	780	0	1,979	22	85	1	35	18	2,014	
Hancock	0	0	1	233	312	0	0	0	312	104	50	0	88	8	400	
Kennebec	0	0	0	0	0	0	0	0	0	0	71	3	76	38	76	
Knox	0	0	0	0	0	0	0	0	0	0	0	0	167	12	167	
Lincoln	0	0	0	0	0	0	0	0	0	0	120	0	28	9	28	
Oxford	465	0	6	869	2,490	0	1,687	0	4,177	20	5	0	216	14	4,393	
Penobscot	689	142	0	0	721	0	28	20	769	28	23	41	48	8	817	
Piscataquis	951	40	0	0	2,631	0	301	317	3,249	26	10	5	156	14	3,405	
Sagadahoc	0	0	0	0	0	0	0	0	0	0	0	0	10	10	10	
Somerset	1,566	490	0	0	5,532	0	63	311	5,906	20	56	44	153	15	6,059	
Waldo	0	0	0	0	0	0	0	127	127	25	30	15	75	15	202	
Washington	415	0	1	105	106	50	135	105	396	40	44	7	20	10	416	
York	0	0	0	0	0	0	0	0	0	0	38	1	71	24	71	
State Total:	6,188	4,093	16	2,332	18,847	50	3,071	977	22,945	36	577	145	1,518	14	24,463	

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

2011 Clearcut as percent of statewide ownership

of Landowners

Clearcut Acres

0% - 0.001%	3	528
0.001%-0.25%	5	4,852
0.26%-0.75%	10	9,019
0.76%-1.00%	2	8,546

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