

8-15-2007

# 2006 Silvicultural Activities Report

Maine Forest Service  
*Forest Policy and Management Division*

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## Recommended Citation

Maine Forest Service, "2006 Silvicultural Activities Report" (2007). *Forest Service Documents*. 61.  
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# 2006

## Silvicultural Activities Report

including Annual Report on Clearcutting and Precommercial Activities

Compiled from the 2006 Landowner Reports and other survey instruments.  
Data collected under the provisions of Title 12 MRSA §8885 and §8878-A

Published:  
August 15, 2007



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Printed under appropriation 010-04A-5400-552

## Report Highlights

### Harvesting and Land Use Changes

- 521,554 acres were harvested in 2006, a 2% decrease from 532,285 acres in 2005.
- 496,446 acres were "partially harvested" (partial and shelterwood totals) in 2006, 2% decrease from 504,767 acres in 2005.
- The number of harvests reported increased slightly from 5,498 to 5,547 harvests.

#### Clearcutting:

1. The total area clearcut decreased, from 21,278 acres in 2005 to 18,704 acres in 2006. Clearcutting amounts to less than 5% of total harvested acres.
2. Landowners owning more than 100,000 acres in Maine created 88% of all clearcuts (16,479 acres).
3. Average clearcut size in 2006 was 21 acres. Landowners owning more than 100,000 acres had an average clearcut size of 22 acres. Landowners owning less than 100,000 acres had an average clearcut size of 14 acres. Two clearcuts larger than 75 acres were created in 2006.
4. The primary silvicultural reason for clearcutting reported by large landowners were 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 3% from 6,240 acres in 2005 to 6,403 acres in 2006.

### Precommercial Silvicultural Activities

#### Herbicide Use:

- For site preparation decreased 83%, from 837 acres in 2005 to 142 acres in 2006.
- To release crop trees from competing vegetation did not significantly change, from 11,530 acres in 2005 to 11,528 acres in 2006.

#### Timber Stand Improvement (TSI):

- Precommercial thinning of young stands with spacing saws decreased 32%, from 14,358 acres in 2005 to 9,709 acres in 2006.  
85% of this activity was done by landowners owning more than 100,000 acres.

#### Planting:

- Tree planting decreased, from 7,545 acres in 2005 to 4,040 acres in 2006.  
94% of the planting was by landowners owning more than 100,000 acres.

### Forester Involvement

- In 2006, licensed foresters supervised harvesting on 374,389 acres, compared to 365,974 acres in 2005.  
72% of all harvest acres in 2006 had a licensed forester involved; the same as 2005.  
Licensed Forester supervision on small woodlots (<= 100 acres) increased to 28% between 2005 and 2006.

## 2006 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			
<b>Forest Industry Woodlands</b>	1 to 100 acres	285	4	0	4	0	33	322
	101 to 1,000 acres	587	0	0	0	0	0	587
	1,001 to 100,000 acres	3,704	791	1,167	1,958	461	64	6,187
	100,000 + acres	27,087	15,172	22,593	37,765	7,015	0	71,867
	<b>SubTotal</b>	<b>31,663</b>	<b>15,967</b>	<b>23,760</b>	<b>39,727</b>	<b>7,476</b>	<b>97</b>	<b>78,963</b>
<b>Investor Timberlands</b>	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	2,117	1,068	834	1,902	200	0	4,219
	100,000 + acres	17,751	79,873	57,079	136,952	9,292	424	164,419
	<b>SubTotal</b>	<b>19,868</b>	<b>80,941</b>	<b>57,913</b>	<b>138,854</b>	<b>9,492</b>	<b>424</b>	<b>168,638</b>
<b>Non-Industrial Land</b>	1 to 100 acres	45,736	2,331	2,640	4,971	254	2,667	53,628
	101 to 1,000 acres	61,980	3,876	8,253	12,129	307	2,045	76,461
	1,001 to 100,000 acres	53,891	6,788	12,103	18,891	753	900	74,435
	100,000 + acres	36,513	4,923	11,572	16,495	130	200	53,338
	<b>SubTotal</b>	<b>198,120</b>	<b>17,918</b>	<b>34,568</b>	<b>52,486</b>	<b>1,444</b>	<b>5,812</b>	<b>257,862</b>
<b>Other Woodlands (Govt, etc.)</b>	1 to 100 acres	157	15	42	57	0	18	232
	101 to 1,000 acres	1,488	107	24	131	0	38	1,657
	1,001 to 100,000 acres	3,586	606	366	972	251	12	4,821
	100,000 + acres	7,701	654	982	1,636	42	2	9,381
	<b>SubTotal</b>	<b>12,932</b>	<b>1,382</b>	<b>1,414</b>	<b>2,796</b>	<b>293</b>	<b>70</b>	<b>16,091</b>
<b>2006 Totals:</b>		<b>262,583</b>	<b>116,208</b>	<b>117,655</b>	<b>233,863</b>	<b>18,704</b>	<b>6,403</b>	<b>521,554</b>
<b>Percent of 2006 Harvest:</b>		<b>50.35%</b>	<b>22.28%</b>	<b>22.56%</b>	<b>44.84%</b>	<b>3.59%</b>	<b>1.23%</b>	<b>100.00%</b>
<b>2005 Totals:</b>		<b>282,751</b>	<b>95,413</b>	<b>126,603</b>	<b>222,016</b>	<b>21,278</b>	<b>6,240</b>	<b>532,285</b>
<b>Percent Change from 2005 to 2006:</b>		<b>-7%</b>	<b>22%</b>	<b>-7%</b>	<b>5%</b>	<b>-12%</b>	<b>3%</b>	<b>-2%</b>

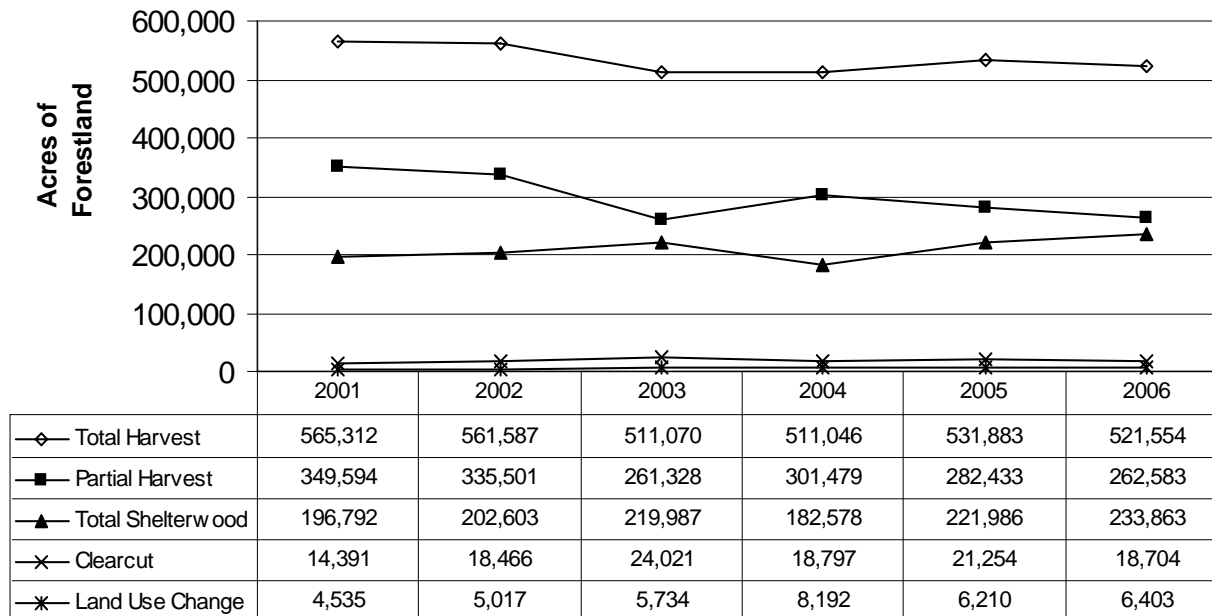
## 2006 Precommercial Activities and Professional Assistance

OwnershipType	Ownership Size	Precommercial Activities by Landowner Size and Type				Number of Reported	Licensed Forester Involvement by Landowner Size and Type	
		Acres					Number of Harvests	Total Acres
		Herbicide Use Site Prep	Release	TSI	Tree Planting			
<b>Forest Industry Woodlands</b>	1 to 100 acres	0	0	0	0	13	1	40
	101 to 1,000 acres	0	0	3	0	16	2	75
	1,001 to 100,000 acres	0	0	0	0	57	43	5,144
	100,000 + acres	0	7,560	5,453	3,038	142	146	54,690
	<b>Subtotal</b>	<b>0</b>	<b>7,560</b>	<b>5,456</b>	<b>3,038</b>	<b>228</b>	<b>192</b>	<b>59,949</b>
<b>Investor Timberlands</b>	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	394	46	21	19	4,179
	100,000 + acres	80	2,076	2,437	748	306	281	148,832
	<b>Subtotal</b>	<b>80</b>	<b>2,076</b>	<b>2,831</b>	<b>794</b>	<b>327</b>	<b>300</b>	<b>153,011</b>
<b>Non-Industrial Land</b>	1 to 100 acres	0	30	349	53	2,651	613	14,935
	101 to 1,000 acres	62	12	349	124	1,620	552	29,518
	1,001 to 100,000 acres	0	1,850	368	21	430	287	52,546
	100,000 + acres	0	0	356	0	136	124	50,012
	<b>Subtotal</b>	<b>62</b>	<b>1,892</b>	<b>1,422</b>	<b>197</b>	<b>4,837</b>	<b>1,576</b>	<b>147,011</b>
<b>Other Woodlands (Govt, etc.)</b>	1 to 100 acres	0	0	0	0	15	5	82
	101 to 1,000 acres	0	0	0	10	43	28	1,205
	1,001 to 100,000 acres	0	0	0	0	44	34	3,750
	100,000 + acres	0	0	0	0	53	53	9,381
	<b>Subtotal</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>155</b>	<b>120</b>	<b>14,418</b>
<b>2006 Totals:</b>		<b>142</b>	<b>11,528</b>	<b>9,709</b>	<b>4,040</b>	<b>5,547</b>	<b>2,188</b>	<b>374,389</b>
<b>2005 Totals:</b>		<b>837</b>	<b>11,530</b>	<b>14,358</b>	<b>7,545</b>	<b>5,498</b>	<b>2,156</b>	<b>365,973</b>
<b>Change from 2005 to 2006:</b>		<b>-83%</b>	<b>0%</b>	<b>-32%</b>	<b>-46%</b>	<b>1%</b>	<b>1%</b>	<b>2%</b>

**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 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 2000-2006**



# 2006 Annual Report on Clearcutting and Precommercial Activities

Compiled from the 2006 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	58	0	0	0	0	
Aroostook	3,883	3,060	0	0	7,134	13	192	0	7,339	25	239	15	197	15	7,536	
Cumberland	0	0	0	0	0	0	0	0	0	0	27	5	20	20	20	
Franklin	231	50	0	0	484	0	98	0	582	25	90	0	343	15	925	
Hancock	0	0	0	0	97	0	0	0	97	24	52	4	68	10	165	
Kennebec	0	0	0	0	0	0	0	0	0	0	15	1	80	20	80	
Knox	0	0	0	0	0	0	0	0	0	0	2	0	5	5	5	
Lincoln	0	0	0	0	0	0	0	0	0	0	6	20	15	8	15	
Oxford	500	0	0	0	144	0	108	0	252	19	258	5	53	11	305	
Penobscot	689	0	0	0	134	0	0	0	134	15	79	18	274	17	408	
Piscataquis	803	17	2	355	545	0	1,735	0	2,280	18	24	85	163	12	2,443	
Sagadahoc	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	
Somerset	1,784	659	0	0	5,145	0	634	0	5,779	22	441	62	259	16	6,038	
Waldo	0	0	0	0	0	0	0	0	0	0	25	16	53	13	53	
Washington	356	0	0	0	0	0	10	5	15	8	25	3	670	13	685	
York	0	0	0	0	0	0	0	0	0	0	112	20	26	7	26	
<b>State Total:</b>	<b>8,246</b>	<b>3,786</b>	<b>2</b>	<b>355</b>	<b>13,683</b>	<b>13</b>	<b>2,777</b>	<b>5</b>	<b>16,478</b>	<b>22</b>	<b>1,463</b>	<b>254</b>	<b>2,226</b>	<b>14</b>	<b>18,704</b>	

**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

2006 Clearcut as percent of statewide ownership

<u>ownership</u>	<u># of Landowners</u>	<u>Clearcut Acres</u>
<b>0% - 0.001%</b>	<b>8</b>	<b>15</b>
<b>0.001%-0.25%</b>	<b>11</b>	<b>9,091</b>
<b>0.26%-0.75%</b>	<b>2</b>	<b>7,373</b>
<b>0.76%-1.00%</b>	<b>0</b>	<b>0</b>