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# Silvicultural Activities Report including Annual Report on Clearcutting and Precommercial Activities, 2012

Maine Forest Service

Maine Department of Agriculture, Conservation and Forestry

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# 2012 Silvicultural Activities Report

## including Annual Report on Clearcutting and Precommercial Activities

Compiled from the 2012 Landowner Reports and other survey instruments.  
Data collected under the provisions of Title 12 MRS §8885 and §8878-A

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**Department of Agriculture, Conservation and Forestry**

**Maine Forest Service**

**Forest Policy and Management Division**

**#22 SHS, Augusta, ME 04333**

**(207)287-2791 OR 1-800-367-0223(instate)**

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## Report Highlights

### Harvesting and Land Use Change

- 461,355 acres were harvested in 2012, a 4% increase from the 444,410 acres in 2011.
- 436,338 acres were "partially harvested" (partial and shelterwood totals) in 2012, a 5% increase from 414,707 acres in 2011.
- The number of harvests reported increased to 5,967 from 5,767.

#### Clearcutting:

1. The total area clearcut decreased, from 24,494 acres in 2011 to 20,441 acres in 2012. Clearcutting amounted to 4.4% of total harvested acres.
2. Landowners owning more than 100,000 acres in Maine created 92% of all clearcuts (18,805 acres).
3. Average clearcut size in 2012 was 20 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. 12 clearcuts larger than 75 acres were created in 2012.
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 decreased 12% from 5,209 acres in 2011 to 4,576 acres in 2012.

### Precommercial Silvicultural Activities

#### Herbicide Use:

- For site preparation decreased 35%, from 1,701 acres in 2011 to 1,105 acres in 2012.
- To release crop trees from competing vegetation increased 30%, from 7,298 acres in 2011 to 9,507 acres in 2012.

#### Timber Stand Improvement (TSI):

- Precommercial thinning of young stands with spacing saws increased 30%, from 6,765 acres in 2011 to 8,802 acres in 2012. 86% of this activity was done by landowners owning more than 100,000 acres (7,604 acres).

#### Planting:

- Tree planting increased 75%, from 4,238 acres in 2011 to 7,417 acres in 2012. 98% of the planting was by landowners owning more than 100,000 acres (7,265 acres).

### Forester Involvement

- In 2012, licensed foresters supervised harvesting on 351,848 acres, compared to 326,318 acres in 2011. 76% of all harvest acres in 2012 had a licensed forester involved; a slight increase from 2011 (73%). Licensed Forester supervision occurred on 30% (749 out of 2,462 harvests) of the harvests on family forests (<= 100 acres) in 2012. This is a slight increase from 29% in 2011 (666 out of 2,274 harvests).

## 2012 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			
OwnershipType	Ownership Size							
<b>Forest Industry Woodlands</b>	1 to 100 acres	30	0	0	0	0	2	32
	101 to 1,000 acres	84	15	50	65	0	0	149
	1,001 to 100,000 acres	2,393	495	73	568	0	32	2,993
	100,000 + acres	11,882	8,152	13,117	21,269	2,481	0	35,632
	<b>SubTotal</b>	<b>14,389</b>	<b>8,662</b>	<b>13,240</b>	<b>21,902</b>	<b>2,481</b>	<b>34</b>	<b>38,806</b>
<b>Investor Timberlands</b>	1 to 100 acres	0	0	0	0	0	0	0
	101 to 1,000 acres	110	0	0	0	0	0	110
	1,001 to 100,000 acres	659	923	94	1,017	0	0	1,676
	100,000 + acres	16,349	12,350	24,076	36,426	6,012	3	58,790
	<b>SubTotal</b>	<b>17,118</b>	<b>13,273</b>	<b>24,170</b>	<b>37,443</b>	<b>6,012</b>	<b>3</b>	<b>60,576</b>
<b>Non-Industrial Land</b>	1 to 100 acres	44,123	3,103	22,314	25,417	498	1,376	71,414
	101 to 1,000 acres	70,386	4,072	6,776	10,848	463	1,498	83,195
	1,001 to 100,000 acres	30,575	8,631	11,310	19,941	667	1,397	52,580
	100,000 + acres	37,090	45,583	44,129	89,712	10,210	0	137,012
	<b>SubTotal</b>	<b>182,174</b>	<b>61,389</b>	<b>84,529</b>	<b>145,918</b>	<b>11,838</b>	<b>4,271</b>	<b>344,201</b>
<b>Other Woodlands (Govt, etc.)</b>	1 to 100 acres	158	0	0	0	0	22	180
	101 to 1,000 acres	1,700	110	60	170	8	75	1,953
	1,001 to 100,000 acres	1,784	842	705	1,547	0	125	3,456
	100,000 + acres	10,689	477	869	1,346	102	46	12,183
	<b>SubTotal</b>	<b>14,331</b>	<b>1,429</b>	<b>1,634</b>	<b>3,063</b>	<b>110</b>	<b>268</b>	<b>17,772</b>
<b>2012 Totals:</b>		<b>228,012</b>	<b>84,753</b>	<b>123,573</b>	<b>208,326</b>	<b>20,441</b>	<b>4,576</b>	<b>461,355</b>
<b>Percent of 2012 Harvest</b>		<b>49.42%</b>	<b>18.37%</b>	<b>26.79%</b>	<b>45.16%</b>	<b>4.43%</b>	<b>0.99%</b>	<b>100.00%</b>
<b>2011 Totals:</b>		<b>223,826</b>	<b>87,668</b>	<b>103,213</b>	<b>190,881</b>	<b>24,494</b>	<b>5,209</b>	<b>444,410</b>
<b>Percent Change from 2011 to 2012:</b>		<b>2%</b>	<b>-3%</b>	<b>20%</b>	<b>9%</b>	<b>-17%</b>	<b>-12%</b>	<b>4%</b>

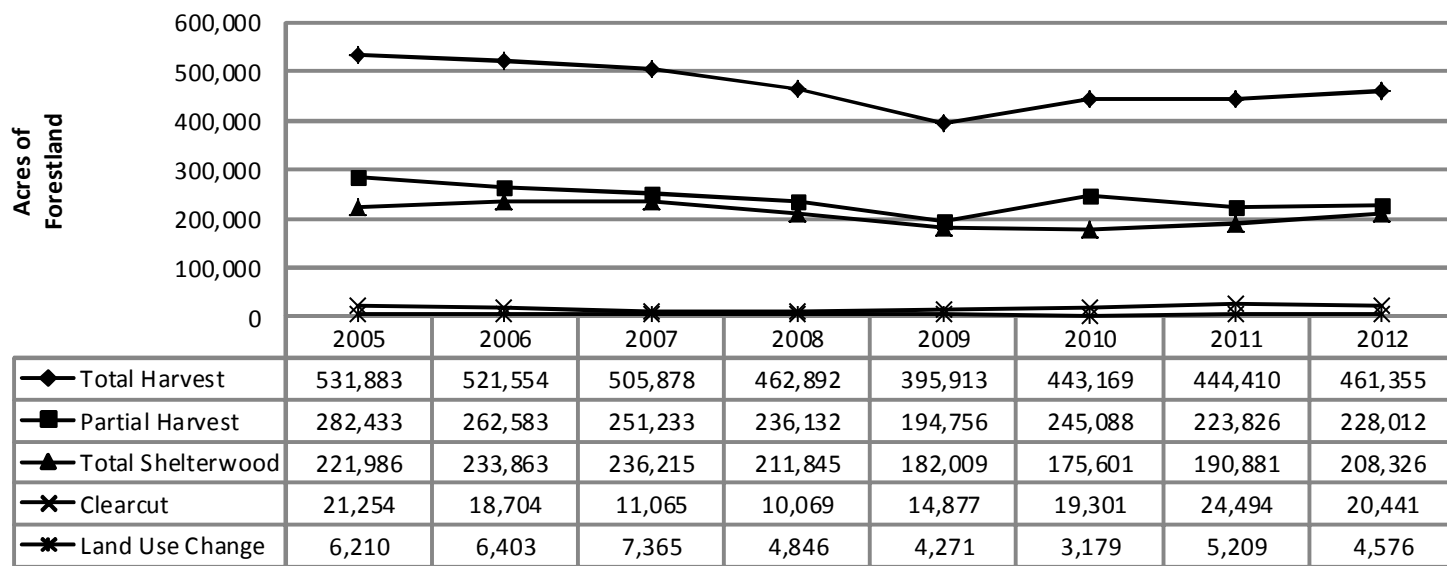
## 2012 Precommercial Activities and Professional Assistance

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							
<b>Forest Industry Woodlands</b>	1 to 100 acres	0	0	0	0	2	1	2
	101 to 1,000 acres	0	0	0	0	1	1	99
	1,001 to 100,000 acres	0	0	0	0	30	19	2,131
	100,000 + acres	0	5,096	0	6,319	115	106	35,544
	<b>Subtotal</b>	<b>0</b>	<b>5,096</b>	<b>0</b>	<b>6,319</b>	<b>148</b>	<b>127</b>	<b>37,776</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	2	2	105
	1,001 to 100,000 acres	0	0	0	0	8	6	1,451
	100,000 + acres	90	2,251	1,822	0	139	139	58,787
	<b>Subtotal</b>	<b>90</b>	<b>2,251</b>	<b>1,822</b>	<b>0</b>	<b>149</b>	<b>147</b>	<b>60,343</b>
<b>Non-Industrial Land</b>	1 to 100 acres	69	7	255	61	2,649	749	36,264
	101 to 1,000 acres	33	29	743	51	2,057	690	34,174
	1,001 to 100,000 acres	0	0	20	40	450	272	31,947
	100,000 + acres	880	2,091	5,782	938	352	344	135,357
	<b>Subtotal</b>	<b>982</b>	<b>2,127</b>	<b>6,800</b>	<b>1,090</b>	<b>5,508</b>	<b>2,055</b>	<b>237,742</b>
<b>Other Woodlands (Govt, etc.)</b>	1 to 100 acres	0	0	95	0	11	1	5
	101 to 1,000 acres	0	0	50	0	39	31	1,669
	1,001 to 100,000 acres	33	33	35	0	35	28	2,342
	100,000 + acres	0	0	0	8	77	73	11,971
	<b>Subtotal</b>	<b>33</b>	<b>33</b>	<b>180</b>	<b>8</b>	<b>162</b>	<b>133</b>	<b>15,987</b>
<b>2012 Totals:</b>		<b>1,105</b>	<b>9,507</b>	<b>8,802</b>	<b>7,417</b>	<b>5,967</b>	<b>2,462</b>	<b>351,848</b>
<b>2011 Totals:</b>		<b>1,701</b>	<b>7,298</b>	<b>6,765</b>	<b>4,238</b>	<b>5,767</b>	<b>2,274</b>	<b>326,318</b>
<b>Change from 2011 to 2012:</b>		<b>-35%</b>	<b>30%</b>	<b>30%</b>	<b>75%</b>	<b>3%</b>	<b>8%</b>	<b>8%</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 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](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.

**Harvesting Trends in Maine 2005-2012**



# 2012 Annual Report on Clearcutting and Precommercial Activities

Compiled from the 2012 Landowner Reports and other survey instruments. Data collected under the provisions of the Forest Resources Assessment Program, 12 MRS § 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	10	15	15	8	15	
Aroostook	2,877	6,113	0	0	2,338	48	275	90	2,751	18	34	16	310	15	3,061	
Cumberland	0	0	0	0	0	0	0	0	0	0	15	3	37	12	37	
Franklin	747	13	4	559	1,861	0	150	0	2,011	19	12	1	22	6	2,033	
Hancock	0	0	0	0	189	0	0	0	189	47	91	4	72	9	261	
Kennebec	0	0	0	0	0	0	0	0	0	0	291	2	62	12	62	
Knox	0	0	0	0	0	0	0	0	0	0	5	0	31	10	31	
Lincoln	0	0	0	0	0	0	0	0	0	0	118	0	49	8	49	
Oxford	73	28	8	1,518	3,910	0	750	0	4,660	26	184	7	83	12	4,743	
Penobscot	0	254	0	0	600	0	0	12	612	17	242	71	239	10	851	
Piscataquis	947	53	0	0	1,303	0	512	136	1,951	27	67	2	205	13	2,156	
Sagadahoc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Somerset	2,658	796	0	0	6,127	0	53	271	6,451	20	59	25	163	12	6,614	
Waldo	0	0	0	0	0	0	0	0	0	0	34	2	163	13	163	
Washington	302	8	0	0	0	20	80	80	180	14	16	2	111	22	291	
York	0	0	0	0	0	0	0	0	0	0	20	2	74	11	74	
<b>State Total:</b>	<b>7,604</b>	<b>7,265</b>	<b>12</b>	<b>2,077</b>	<b>16,328</b>	<b>68</b>	<b>1,820</b>	<b>589</b>	<b>18,805</b>	<b>36</b>	<b>1,198</b>	<b>152</b>	<b>1,636</b>	<b>14</b>	<b>20,441</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**

**2012 Clearcut as percent of statewide ownership**

**# of Landowners**

**Clearcut Acres**

<b>0% - 0.001%</b>	<b>16</b>	<b>8,691</b>
<b>0.001% - 0.25%</b>	<b>5</b>	<b>10,114</b>
<b>0.26% - 0.75%</b>	<b>0</b>	<b>0</b>
<b>0.76% - 1.00%</b>	<b>0</b>	<b>0</b>

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## Maine Forest Service District Foresters

### Ken Canfield

2281 Alfred Road  
Lyman, ME 04002  
Phone: (207) 441-3712  
E-mail: ken.canfield@maine.gov

### Morten Moesswilde

536 Waldoboro Road  
Jefferson, ME 04348  
Phone: (207) 441-2895  
E-mail: morten.moesswilde@maine.gov

### Vacant

P.O. Box 130  
Jonesboro, ME 04468  
Phone: (207) 592-2239  
E-mail:

### Vacant

P.O. Box 415  
Old Town, ME 04468  
Phone: (207) 592-2239  
E-mail:

### Dan Jacobs

2 Forestry Road  
Island Falls, ME 04747  
Phone: (207) 441-4128  
E-mail: dan.jacobs@maine.gov

### Shane Duigan

356 Shaker Road  
Gray, ME 04039  
Phone: (207) 592-1251  
E-mail: shane.p.duigan@maine.gov

### Patty Cormier

PO Box 416  
Norridgewock, ME 04957  
Phone: (207) 592-2238  
E-mail: patty.cormier@maine.gov

### Gordon Moore

P.O. Box 1107  
Greenville, ME 04441  
Phone: (207) 441-4139  
E-mail: gordon.moore@maine.gov

### Merle Ring

131 Bethel Road  
West Paris, ME 04289  
Phone: (207) 441-3276  
E-mail: merle.ring@maine.gov

### Dave Rochester

45 Radar Road  
Ashland, ME 04732  
Phone: (207) 441-3817  
E-mail: dave.rochester@maine.gov

**Maine Forest Service - Main Office - Augusta** 1-800-367-0223 (instate) or 207-287-2791  
email: forestinfo@maine.gov