

MAINE STATE LEGISLATURE

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2016

Silvicultural Activities Report

including Annual Report on Clearcutting and Precommercial Activities

Compiled from the 2016 Landowner Reports and other survey instruments.
Data collected under the provisions of 12 MRS §8885

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Report Highlights

Harvesting and Land Use Change

- 344,210 acres were harvested in 2016, a decrease of 14% from 401,213 acres in 2015.
- 319,817 acres were partially harvested (partial and shelterwood totals) in 2016, a 14% decrease from 372,383 acres in 2015.
- The number of harvests reported decreased from 5,432 to 4,642.

Clearcutting:

1. The total area clearcut decreased, from 25,083 acres in 2015 to 20,971 acres in 2016. Clearcutting amounted to 6.1% of total harvested acres.
2. Landowners owning more than 100,000 acres in Maine created 92% of all clearcut acreage (19,283 acres).
3. Average clearcut size in 2016 was 32 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 2016.
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 9% from 3,747 acres in 2015 to 3,422 acres in 2016.

Precommercial Silvicultural Activities

Herbicide Use:

- Site preparation increased 15%, from 1,957 acres in 2015 to 2,247 acres in 2016.
- To release crop trees from competing vegetation increased 31%, from 10,273 acres in 2015 to 13,464 acres in 2016.

Timber Stand Improvement (TSI):

- Precommercial thinning of young stands with spacing saws decreased 70%, from 12,212 acres in 2015 to 3,724 acres in 2016. 76% of the acreage was done by landowners owning more than 100,000 acres (2,818 acres).

Planting:

- Tree planting decreased 2%, from 6,820 acres in 2015 to 6,677 acres in 2016. 99% of the planting acreage was by landowners owning more than 100,000 acres (6,592 acres).

Forester Involvement

- In 2016, licensed foresters supervised harvesting on 259,615 acres, compared to 295,335 acres in 2015. 75% of all harvest acres in 2016 had a licensed forester involved; an increase from 2015 (74% involvement). Licensed Forester supervision occurred on 32% (721 out of 2,240 harvests) of the harvests on non-industrial family forests (<= 100 acres) in 2016. This is the same percentage as in 2015 (843 out of 2,650 harvests).

2016 Harvesting Activities

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							
Forest Industry Woodlands	1 to 100 acres	0	0	0	0	0	12	12
	101 to 1,000 acres	240	0	0	0	0	0	240
	1,001 to 100,000 acres	6,083	863	171	1,034	34	0	7,151
	100,000 + acres	13,875	12,884	18,712	31,596	6,432	4	51,907
	SubTotal	20,198	13,747	18,883	32,630	6,466	16	59,310
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	549	323	2,236	2,559	0	166	3,274
	100,000 + acres	13,529	4,060	23,206	27,266	5,792	72	46,659
	SubTotal	14,078	4,383	25,442	29,825	5,792	238	49,933
Non-Industrial Land	1 to 100 acres	41,747	2,149	4,651	6,800	527	1,398	50,472
	101 to 1,000 acres	46,443	4,258	5,261	9,519	459	986	57,407
	1,001 to 100,000 acres	27,610	3,285	7,326	10,611	555	605	39,381
	100,000 + acres	17,463	17,648	30,482	48,130	6,870	0	72,463
	SubTotal	133,263	27,340	47,720	75,060	8,411	2,989	219,723
Other Woodlands (Govt, etc.)	1 to 100 acres	350	15	12	27	0	46	423
	101 to 1,000 acres	1,226	180	0	180	113	38	1,557
	1,001 to 100,000 acres	2,017	709	542	1,251	0	4	3,272
	100,000 + acres	6,852	1,271	1,589	2,860	189	91	9,992
	SubTotal	10,445	2,175	2,143	4,318	302	179	15,244
2016 Totals:		177,984	47,645	94,188	141,833	20,971	3,422	344,210
Percent of 2016 Harvest		51.71%	13.84%	27.36%	41.21%	6.09%	0.99%	100.00%
2015 Totals:		209,286	53,096	110,001	163,097	25,083	3,747	401,213
Percent Change from 2015 to 2016:		-15%	-10%	-14%	-13%	-16%	-9%	-14%

2016 Precommercial Activities and Professional Assistance

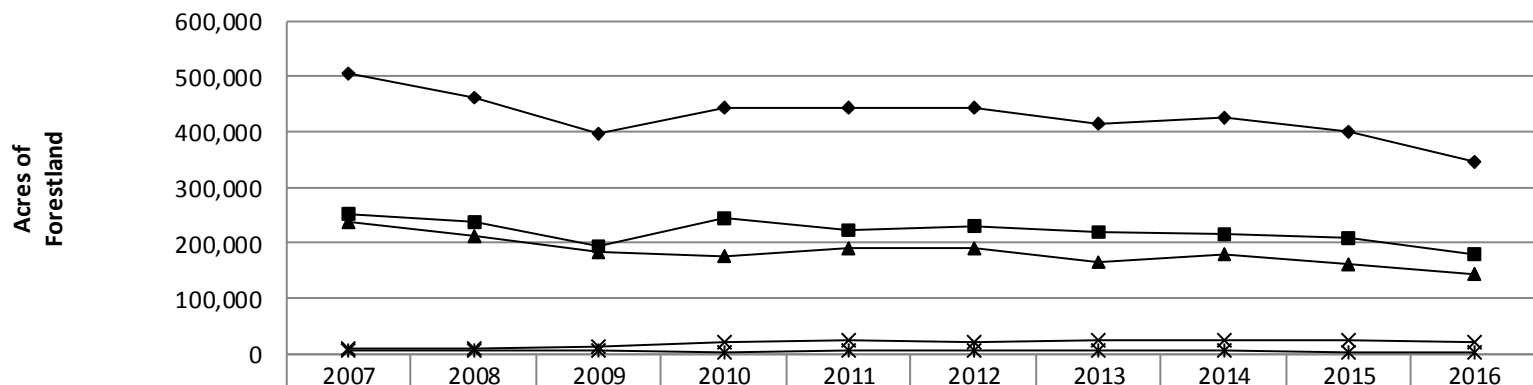
Ownership Type	Ownership Size	Precommercial Activities by Landowner Size and Type				Number of Reported Harvests	Licensed Forester Involvement by Landowner Size and Type	
		Acres					Number of Harvests	Total Acres
		Herbicide Use		TSI	Tree Planting			
Site Prep	Release							
Forest Industry Woodlands	1 to 100 acres	0	0	0	0	1	1	12
	101 to 1,000 acres	0	0	0	0	3	0	0
	1,001 to 100,000 acres	0	0	0	0	35	20	1,915
	100,000 + acres	0	10,845	1,589	4,079	132	106	51,353
	Subtotal	0	10,845	1,589	4,079	171	127	53,280
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	3,274
	100,000 + acres	0	918	0	149	139	137	44,535
	Subtotal	0	918	0	149	152	150	47,809
Non-Industrial Land	1 to 100 acres	20	12	329	38	2,240	721	19,449
	101 to 1,000 acres	21	19	536	39	1,263	505	26,713
	1,001 to 100,000 acres	0	0	0	0	394	289	28,091
	100,000 + acres	2,204	1,670	1,166	2,364	280	264	70,015
	Subtotal	2,245	1,701	2,031	2,441	4,177	1,779	144,268
Other Woodlands (Govt, etc.)	1 to 100 acres	2	0	2	3	22	10	259
	101 to 1,000 acres	0	0	34	5	42	28	940
	1,001 to 100,000 acres	0	0	5	0	26	24	3,167
	100,000 + acres	0	0	63	0	52	50	9,892
	Subtotal	2	0	104	8	142	112	14,258
2016 Totals:		2,247	13,464	3,724	6,677	4,642	2,168	259,615
2015 Totals:		1,957	10,273	12,212	6,820	5,432	2,381	295,335
Change from 2015 to 2016:		15%	31%	-70%	-2%	-15%	-9%	-12%

344,210	<i>Statewide Total Harvest acres from previous page</i>
401,213	

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.

Harvesting Trends in Maine 2007-2016



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
◆ Total Harvest	505,878	462,892	395,913	443,169	444,410	443,714	415,255	424,453	401,213	344,210
■ Partial Harvest	251,233	236,132	194,756	245,088	223,826	229,319	220,967	214,220	209,286	177,984
▲ Total Shelterwood	236,215	211,845	182,009	175,601	190,881	189,356	164,817	181,207	163,097	141,833
× Clearcut	11,065	10,069	14,877	19,301	24,494	20,461	25,055	23,366	25,083	20,971
* Land Use Change	7,365	4,846	4,271	3,179	5,209	4,578	4,416	5,660	3,747	3,422

2016 Annual Report on Clearcutting and Precommercial Activities

Compiled from the 2016 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	Clearcut	
Androscoggin	0	0	0	0	0	0	0	0	0	0	12	0	10	5	10	
Aroostook	1,589	4,134	1	89	6,512	5	48	0	6,565	119	199	3	297	17	6,862	
Cumberland	0	0	0	0	0	0	0	0	0	0	12	4	44	6	44	
Franklin	186	0	7	1,313	989	1,097	879	0	2,965	34	1	10	210	15	3,175	
Hancock	0	0	1	219	400	0	0	0	400	100	85	3	289	17	689	
Kennebec	0	0	0	0	0	0	0	0	0	0	44	0	80	80	80	
Knox	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
Lincoln	0	0	0	0	0	0	0	0	0	0	0	0	20	20	20	
Oxford	0	57	2	222	750	763	649	0	2,162	23	50	10	103	13	2,265	
Penobscot	3	149	1	96	277	0	12	0	289	29	3	20	10	10	299	
Piscataquis	392	1,237	1	138	733	0	403	174	1,310	28	232	27	45	9	1,355	
Sagadahoc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Somerset	618	997	2	373	5,045	0	53	8	5,106	22	72	4	401	24	5,507	
Waldo	0	18	0	0	35	0	0	0	35	35	12	0	113	16	148	
Washington	30	0	1	235	330	72	49	0	451	23	78	0	24	12	475	
York	0	0	0	0	0	0	0	0	0	0	105	4	42	7	42	
State Total:	2,818	6,592	16	2,685	15,071	1,937	2,093	182	19,283	36	906	85	1,688	14	20,971	

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.

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