

MAINE STATE LEGISLATURE

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2019

Silvicultural Activities Report

including Annual Report on Clearcutting and Precommercial Activities

Compiled from 2019 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 Changes

- 322,239 acres were harvested in 2019, a decrease of 6% from 343,272 acres in 2018.
- 297,952 acres were partially harvested (partial and shelterwood totals) in 2019, a 6% decrease from 317,452 acres in 2018.
- The number of harvests reported decreased from 4,833 to 4,574.

Clearcutting:

1. The total area clearcut decreased 7% from 23,045 acres in 2018 to 21,442 acres in 2019. Clearcutting amounted to 6.7% of total harvested acres.
2. Landowners owning more than 100,000 acres in Maine created 93% of all clearcut acreage (19,844 acres).
3. Average clearcut size in 2019 was 24 acres. Landowners owning more than 100,000 acres had an average clearcut size of 25 acres. Landowners owning less than 100,000 acres had an average clearcut size of 16 acres. 29 clearcuts larger than 75 acres were created in 2019.
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 3% from 2,775 acres in 2018 to 2,845 acres in 2019.

Precommercial Silvicultural Activities

Herbicide Use:

- Site preparation increased 395%, from 960 acres in 2018 to 4,750 acres in 2019.
- To release crop trees from competing vegetation decreased 34%, from 15,457 acres in 2018 to 10,127 acres in 2019.

Timber Stand Improvement (TSI):

- Precommercial thinning of young stands with spacing saws decreased 39%, from 14,832 acres in 2018 to 9,003 acres in 2019.
93% of the acreage was done by landowners owning more than 100,000 acres (8,360 acres).

Planting:

- Tree planting increased 21%, from 4,624 acres in 2018 to 5,592 acres in 2019.
99% of the planting acreage was by landowners owning more than 100,000 acres (5,525 acres).

Forester Involvement

- In 2019, licensed foresters supervised harvesting on 224,014 acres, compared to 248,117 acres in 2018.
70% of all harvest acres in 2019 had a licensed forester involved; compared to 72% involvement in 2018.
Licensed Forester supervision occurred on 30% (672 out of 2,248 harvests) of the harvests on non-industrial family forests (<= 100 acres) in 2019; compared to 32% in 2018 (743 out of 2,303 harvests).

2019 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	99	20	0	20	0	2	121
	101 to 1,000 acres	347	10	10	20	0	0	367
	1,001 to 100,000 acres	4,570	665	1,176	1,841	197	0	6,608
	100,000 + acres	12,363	9,447	15,797	25,244	8,120	0	45,727
	SubTotal	17,379	10,142	16,983	27,125	8,317	2	52,823
Investor Timberlands	1 to 100 acres	44	0	0	0	0	0	44
	101 to 1,000 acres	0	0	0	0	0	0	0
	1,001 to 100,000 acres	436	400	67	467	0	0	903
	100,000 + acres	18,359	4,121	21,807	25,928	3,639	0	47,926
	SubTotal	18,839	4,521	21,874	26,395	3,639	0	48,873
Non-Industrial Land	1 to 100 acres	39,741	2,812	4,354	7,166	466	1,557	48,930
	101 to 1,000 acres	50,601	5,914	4,821	10,735	427	758	62,521
	1,001 to 100,000 acres	19,092	5,166	8,293	13,459	493	280	33,324
	100,000 + acres	15,896	11,787	25,738	37,525	8,085	50	61,556
	SubTotal	125,330	25,679	43,206	68,885	9,471	2,645	206,331
Other Woodlands (Govt, etc.)	1 to 100 acres	159	30	155	185	0	16	360
	101 to 1,000 acres	1,050	191	50	241	15	126	1,432
	1,001 to 100,000 acres	1,662	242	375	617	0	24	2,303
	100,000 + acres	6,549	2,317	1,219	3,536	0	32	10,117
	SubTotal	9,420	2,780	1,799	4,579	15	198	14,212
2019 Totals:		170,968	43,122	83,862	126,984	21,442	2,845	322,239
Percent of 2019 Harvest:		53.06%	13.38%	26.02%	39.41%	6.65%	0.88%	100.00%
2018 Totals:		177,217	48,253	91,981	140,234	23,045	2,775	343,272
Percent Change from 2018 to 2019:		-4%	-11%	-9%	-9%	-7%	3%	-6%

2019 Precommercial Activities and Professional Assistance

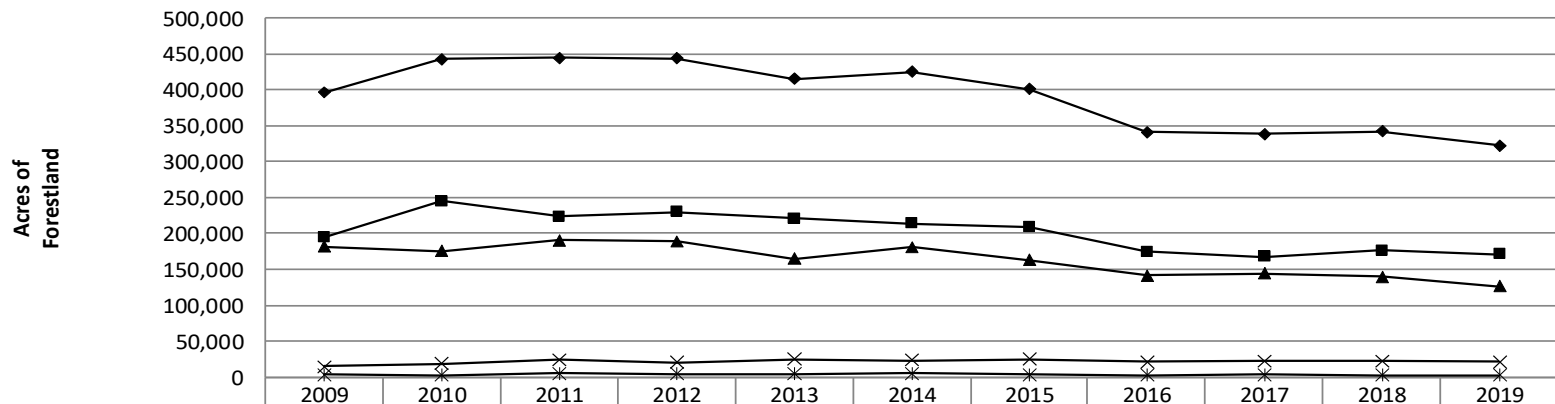
Ownership Type	Ownership Size	Precommercial Activities by Landowner Size and Type				Number of Reported Harvests	Licensed Forester Involvement by Landowner Size and Type	
		Acres					Number of Harvests	Total Acres
		Herbicide Use		TSI	Tree Planting			
Site Prep	Release							
Forest Industry Woodlands	1 to 100 acres	0	0	0	0	6	2	31
	101 to 1,000 acres	0	0	0	0	9	2	170
	1,001 to 100,000 acres	0	0	0	0	25	12	2,276
	100,000 + acres	3,137	7,938	6,618	4,144	107	106	45,723
	Subtotal	3,137	7,938	6,618	4,144	147	122	48,200
Investor Timberlands	1 to 100 acres	0	0	0	0	2	1	24
	101 to 1,000 acres	0	0	0	0	0	0	0
	1,001 to 100,000 acres	0	0	0	0	5	5	903
	100,000 + acres	355	217	222	0	124	116	42,559
	Subtotal	355	217	222	0	131	122	43,486
Non-Industrial Land	1 to 100 acres	45	0	262	12	2,248	672	18,213
	101 to 1,000 acres	37	22	145	15	1,336	566	31,287
	1,001 to 100,000 acres	96	0	221	40	333	204	20,841
	100,000 + acres	1,080	1,950	1,520	1,381	256	206	48,934
	Subtotal	1,258	1,972	2,148	1,448	4,173	1,648	119,275
Other Woodlands (Govt, etc.)	1 to 100 acres	0	0	0	0	16	8	222
	101 to 1,000 acres	0	0	15	0	28	14	719
	1,001 to 100,000 acres	0	0	0	0	29	24	2,013
	100,000 + acres	0	0	0	0	50	48	10,099
	Subtotal	0	0	15	0	123	94	13,053
2019 Totals:		4,750	10,127	9,003	5,592	4,574	1,986	224,014
2018 Totals:		960	15,457	14,832	4,624	4,833	2,221	248,116
Change from 2018 to 2019:		395%	-34%	-39%	21%	-5%	-11%	-10%

322,239 *Statewide Total Harvest
acres from previous
page*

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 4 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 2009-2019



◆ Total Harvest	395,913	443,169	444,410	443,714	415,255	424,453	400,832	341,318	338,088	342,462	322,239
■ Partial Harvest	194,756	245,088	223,826	229,319	220,967	214,220	209,028	175,057	167,543	176,593	170,968
▲ Total Shelterwood	182,009	175,601	190,881	189,356	164,817	181,207	162,978	141,833	144,012	140,062	126,984
× Clearcut	14,877	19,301	24,494	20,461	25,055	23,366	25,082	20,971	22,741	23,033	21,442
* Land Use Change	4,271	3,179	5,209	4,578	4,416	5,660	3,744	3,457	3,791	2,774	2,845

2019 Annual Report on Clearcutting and Precommercial Activities

Compiled from the 2019 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	Acres						TSI	Planted	Clearcut			
	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	0	0	0	23	8	23
Aroostook	6,396	3,804	6	719	6,188	0	868	541	7,597	25	163	50	511	18	8,108	
Cumberland	0	0	0	0	0	0	0	0	0	0	1	0	16	5	16	
Franklin	0	0	3	603	1,188	0	0	15	1,203	41	9	2	129	18	1,332	
Hancock	0	0	1	118	143	0	0	0	143	24	84	2	59	12	202	
Kennebec	0	0	0	0	0	0	0	0	0	0	27	0	10	5	10	
Knox	0	0	0	0	0	0	0	0	0	0	6	0	87	29	87	
Lincoln	0	0	0	0	0	0	0	0	0	0	0	0	6	6	6	
Oxford	0	0	5	851	1,581	0	15	0	1,596	38	11	0	202	12	1,798	
Penobscot	107	379	0	0	508	134	89	0	731	18	12	1	62	12	793	
Piscataquis	115	113	11	1,213	1,508	24	978	965	3,475	24	30	0	134	34	3,609	
Sagadahoc	0	0	0	0	0	0	0	0	0	0	0	0	25	12	25	
Somerset	370	1,229	3	346	3,011	0	0	1,786	4,797	24	9	12	126	11	4,923	
Waldo	0	0	0	0	0	0	0	0	0	0	40	0	5	5	5	
Washington	1,372	0	0	0	136	0	142	24	302	14	45	0	7	7	309	
York	0	0	0	0	0	0	0	0	0	0	206	0	196	24	196	
State Total:	8,360	5,525	29	3,850	14,263	158	2,092	3,331	19,844	25	643	67	1,598	16	21,442	

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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