DCR: DSPR Post-management monitoring **September 2019**
Myles Standish State Forest – 200 ft. Buffer Small Tree and Shrub Mulching Lot

Overview:

This post-harvest inventory was conducted on the 35 acre tree mulching project conducted in the winter/spring of 2010-11 on the 200 ft. buffer of Long Pond Road and Mast Road, located in the Myles Standish State Forest in the Town of Plymouth. An additional 16 acres of the 200 ft. buffer received the same treatment but had a follow up timber sale in 2014 to remove dead and dying red pine. These 16 acres will be sampled at a later date.

The operation parameters were to mulch in place all shrubs and all trees less than 8 in. DBH that were within 200 feet of Long Pond Road and Mast Road. The purpose of the project was to reduce the natural fuel load to lessen the potential of wildfire of impacting the adjacent residential areas as well as to provide safe access for firefighters and fire apparatus. The operation was done with tracked skid steers with flail mower heads.

A post-harvest inventory was conducted in which 10 points were systematically located in the harvest area. At each point, overstory trees (≥ 1 in. DBH) were sampled using horizontal point sampling with a BAF $10_{ENGLISH}$ angle gauge; understory trees (< 1 in. DBH, ≥ 3 in. tall) were sampled using circular plots of fixed radius 6.0 ft.; and CWD was sampled using line intersect sampling with single 50 ft. long transects. Field inventory was conducted during August 2019, under dry summer conditions using standards set forth in the DCR: DSPR Post-management Inventory Protocols. Photographs were taken at all of these plots.

Overstory observations:

Portions of the area were burned during wildfires in 1938, 1957, and 1963. No widespread or intensive silvicultural work had been completed on this part of the State Forest prior to the wildfires.

The 2010-11 operation removed smaller trees to lower the complexity of subsequent prescribed burns as well as to protect adjacent residential areas. Eastern white pine, pitch pine, white oak, and black oak trees ≥ 1 in. DBH were found in the project area. Oak tends to dominate towards the northern end with native pines dominating elsewhere. Pine species tended to be the larger trees up to 18 in. DBH. Pitch pine and Eastern white pine compose 84% of the 81 ft^2/ac basal area live of overstory trees. No snags were present in the sample plots but were observed in the project area.

Understory observations:

The understory is comprised of white pine, pitch pine, American beech, white oak, and black oak. The ground cover included both woody and herbaceous species, most of which is dominated by black huckleberry, lowbush blueberry, and scrub oak. Glossy buckthorn was observed in the understory. Eastern white pine and white oak compose 71% of the 1,618 trees per acre < 1 in. DBH.

Coarse woody debris observations:

Operations created FWD (decomposed by this date) as the result of mulching, and did contribute to an increase in CWD as small oak trees were allowed to remain as long as half of the stem was mulched. 67.2 ft^3/ac of CWD were present, with 100% of that in pieces.

Photographs:



View showing prevalent shrubs.



View of scattered larger trees representative of current conditions throughout the lot.



View showing regeneration of pitch pine among thick shrubs. A fire break can be seen in the northeast portion of the photo.

STANDING LIVE TREES;
ALL SIZES -
STAND TABLE

COMMON NAME	pitch pine		eastern white pine		American beech		white oak		black oak	
SPCD	126	126	129	129	531	531	802	802	837	837
HT (FT) / DBH (IN) CLASS	**BA**	**TPA**	**BA**	**TPA**	**BA**	**TPA**	**BA**	**TPA**	**BA**	**TPA**
3.0 IN ≤ HT < 4.5 FT.	0	154	0	809	0	39	0	347	0	116
4.5 FT ≤ HT < 10.0 FT.	0	77	0	0	0	0	0	0	0	77
10.0 FT ≤ HT > 15.0 FT. / < 1.0 IN. DBH	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	1	61	0	0
4	4	49	0	0	0	0	0	0	0	0
6	8	42	1	5	0	0	1	5	2	10
8	11	32	1	3	0	0	2	6	1	3
10	10	19	4	7	0	0	1	2	1	2
12	1	1	3	4	0	0	0	0	2	3
14	6	6	8	8	0	0	2	2	0	0
16	1	1	9	6	0	0	0	0	0	0
18	0	0	1	1	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0
32	0	0	0	0	0	0	0	0	0	0
34	0	0	0	0	0	0	0	0	0	0
36	0	0	0	0	0	0	0	0	0	0
38	0	0	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0
42	0	0	0	0	0	0	0	0	0	0
44	0	0	0	0	0	0	0	0	0	0
46	0	0	0	0	0	0	0	0	0	0
48	0	0	0	0	0	0	0	0	0	0
≥50	0	0	0	0	0	0	0	0	0	0
TOTALS	**41**	**380**	**27**	**843**	**0**	**39**	**7**	**423**	**6**	**210**

STANDING LIVE TREES;
ALL SIZES -
STAND TABLE

COMMON NAME **SPCD** **HT (FT) / DBH (IN) CLASS**	TOTAL **BA**	TOTAL **TPA**
3.0 IN ≤ HT < 4.5 FT.	0	1464
4.5 FT ≤ HT < 10.0 FT.	0	154
10.0 FT ≤ HT > 15.0 FT. / < 1.0 IN. DBH	0	0
2	1	61
4	4	49
6	12	63
8	15	44
10	16	30
12	6	8
14	16	15
16	10	7
18	1	1
20	0	0
22	0	0
24	0	0
26	0	0
28	0	0
30	0	0
32	0	0
34	0	0
36	0	0
38	0	0
40	0	0
42	0	0
44	0	0
46	0	0
48	0	0
≥50	0	0
TOTALS	**81**	**1894**

STANDING DEAD TREES;
≥ 1 IN. DBH -
STAND TABLE

COMMON NAME	pitch pine		eastern white pine		American beech		white oak		black oak	
SPCD	126	126	129	129	531	531	802	802	837	837
HT (FT) / DBH (IN) CLASS	**BA**	**TPA**	**BA**	**TPA**	**BA**	**TPA**	**BA**	**TPA**	**BA**	**TPA**
3.0 IN ≤ HT < 4.5 FT.	0	0	0	0	0	0	0	0	0	0
4.5 FT ≤ HT < 10.0 FT.	0	0	0	0	0	0	0	0	0	0
10.0 FT ≤ HT > 15.0 FT. / < 1.0 IN. DBH	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	0	0	0	0	0	0
32	0	0	0	0	0	0	0	0	0	0
34	0	0	0	0	0	0	0	0	0	0
36	0	0	0	0	0	0	0	0	0	0
38	0	0	0	0	0	0	0	0	0	0
40	0	0	0	0	0	0	0	0	0	0
42	0	0	0	0	0	0	0	0	0	0
44	0	0	0	0	0	0	0	0	0	0
46	0	0	0	0	0	0	0	0	0	0
48	0	0	0	0	0	0	0	0	0	0
≥50	0	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

STANDING DEAD TREES;
≥ 1 IN. DBH -
STAND TABLE

COMMON NAME **SPCD** **HT (FT) / DBH (IN) CLASS**	TOTAL **BA**	TOTAL **TPA**
3.0 IN ≤ HT < 4.5 FT.	0	0
4.5 FT ≤ HT < 10.0 FT.	0	0
10.0 FT ≤ HT > 15.0 FT. / < 1.0 IN. DBH	0	0
2	0	0
4	0	0
6	0	0
8	0	0
10	0	0
12	0	0
14	0	0
16	0	0
18	0	0
20	0	0
22	0	0
24	0	0
26	0	0
28	0	0
30	0	0
32	0	0
34	0	0
36	0	0
38	0	0
40	0	0
42	0	0
44	0	0
46	0	0
48	0	0
≥50	0	0
TOTALS	**0**	**0**

COARSE WOODY DEBRIS SUMMARY (DEAD; >45° FROM VERTICAL; ≥ 3.0 IN DIA; ≥ 3.0 FT LENGTH)

PIECES/AC	PIECE CF/AC	PILES (DIMENSIONS)/AC	PILE CF/AC	PILE DEPTH CF/AC	TOTAL CWD CF/AC: PIECES + PILE DIMENSIONS	TOTAL CWD CF/AC: PIECES + PILE DEPTH
73.5	67.2	0.0	0.0	0.0	67.2	67.2