



Timber Volume Estimation

Marysville Development

January 17, 2023

Summary

Resilient Forestry was contracted by Horizon View Holdings in January, 2023 to provide a board foot volume estimation for the entire development area. The property addresses are as follows:

- 7811 40th St NE (290502-001-003-00)
- 7715 40th St NE (north 2.5 acres only; 290502-001-002-00)
- 7808 44th St NE (290502-001-004-00)

Resilient Forestry conducted a timber cruise on January 6, 2023 and analyzed collected data to estimate timber volume within the project area. A total of 255 thousand board feet (MBF) are estimated within the full property area, and 219 MBF are estimated within a reduced area excluding portions of the property that were not measured and which were observed to have few trees.

Methods

On January 6, 2023, Resilient Forestry staff installed 18 variable radius timber cruise plots across the project area. Project area boundaries were defined by a boundary shapefile provided to Resilient Forestry by Horizon View Holdings. Plot locations were selected using a systematic random distribution at 120-foot intervals. Four plots were installed using a full inventory protocol, where all trees were scaled and evaluated for species, diameter, height, and form. The remaining 14 plots were installed as count plots where trees were tallied by species. All plots were cruised using a basal area factor of 40.

Plot data were analyzed using SuperACE 08 software. Total board foot volume was estimated using both the full extent of the property area (7.82 ac), as well as a reduced area (6.71 ac) which excluded portions of the property that were observed to have few trees present. These areas were not inventoried in the field as doing so would have required entering people's backyards.

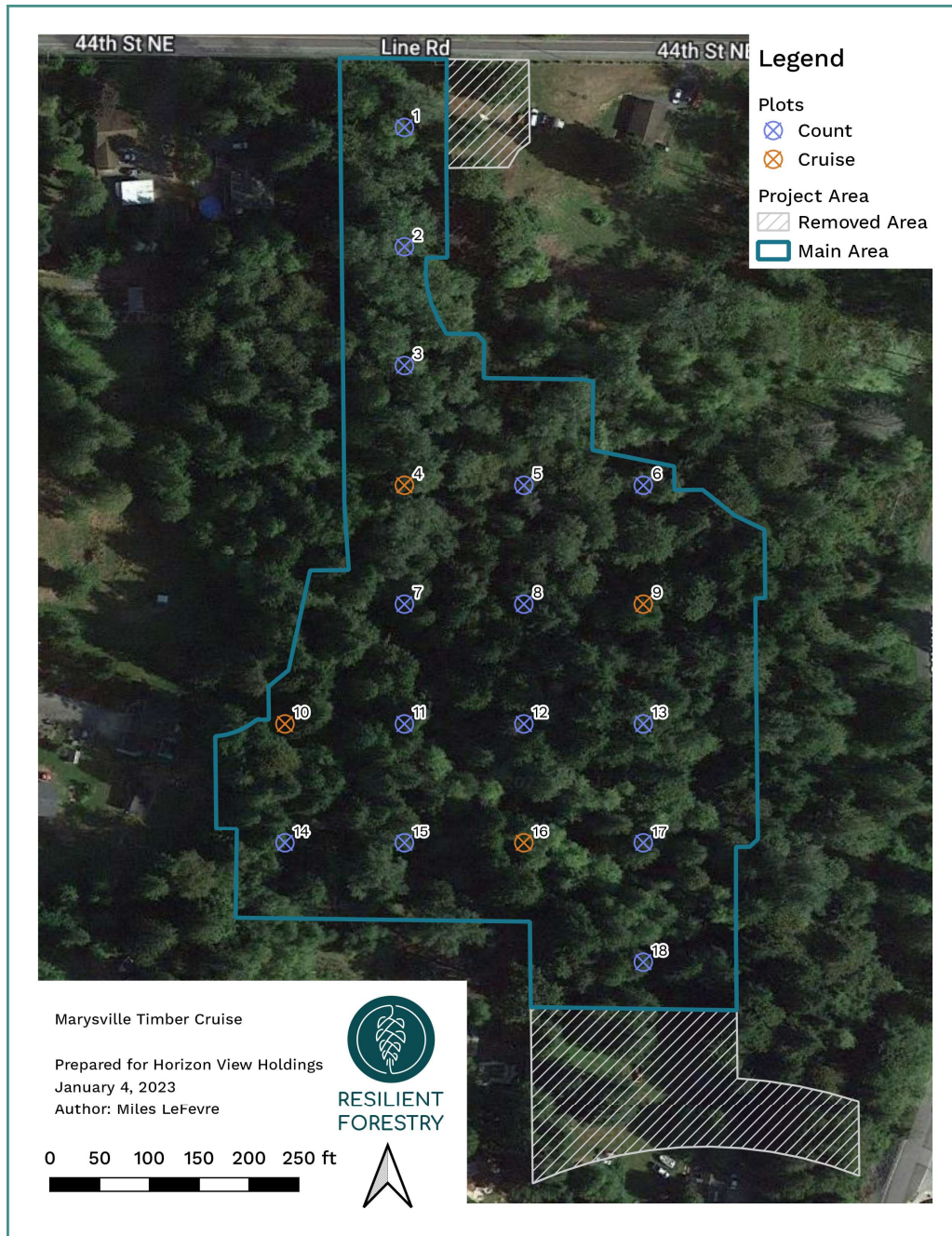


Figure 1. Project area map.

Results

Table 1. Thousand board foot (MBF) net volume per acre by species and grade.

	All	1 Saw	2 Saw	3 Saw	4 Saw
Western redcedar	17	0	9	8	0
Western hemlock	3	0	1	2	0
Douglas-fir	6	3	3	1	0
Black cottonwood	1	0	0	0	0
Red alder	5	0	3	2	0
TOTAL	33	3	16	12	1

Table 2. MBF net volume by species and grade, assuming 7.82-acre project area.

	All	1 Saw	2 Saw	3 Saw	4 Saw
Western redcedar	132	0	71	59	3
Western hemlock	26	0	7	16	3
Douglas-fir	50	24	22	4	0
Black cottonwood	5	0	3	0	2
Red alder	42	0	23	19	0
TOTAL	255	24	127	98	7

Table 2. MBF net volume by species and grade, assuming 7.82-acre project area.

	All	1 Saw	2 Saw	3 Saw	4 Saw
Western redcedar	114	0	61	50	3
Western hemlock	22	0	6	14	2
Douglas-fir	43	20	19	3	0
Black cottonwood	4	0	3	0	1
Red alder	36	0	20	16	0
TOTAL	219	20	109	84	6