

CAR1213 Listing Addendum A

9.1.1.1

14. A description of how the offset project meets (or will meet) the definition of “Natural Forest Management” (refer to Section 3.8.2), including:

- a. Composition of native species;
- b. Distribution of age classes / sustainable management;
- c. Structural elements (standing and lying dead wood);

Part VI.B.1 – the project will consist of at least 95% native species based on the estimated sum of carbon in the standing live carbon pool. The assessment shall be conducted using estimates of stems per acre for Reforestation Projects and basal area per acre for Improved Forest Management and Avoided Conversion Projects.

Example:

Species ID	Common Name	Scientific Name	BA (sqft/ac)	Percent
012	Balsam Fir	Abies balsamea	6.84	6.86%
071	Tamarack	Larix laricina	0.11	0.11%
091	Norway Spruce	Picea abies	0.76	0.76%
094	White Spruce	Picea glauca	0.07	0.07%
095	Black Spruce	Picea mariana	0.99	0.99%
097	Red Spruce	Picea rubens	10.14	10.17%
125	Red Pine	Pinus resinosa	0.09	0.09%
129	Eastern White Pine	Pinus strobus	0.74	0.74%
241	Northern White-Cedar	Thuja occidentalis	0.34	0.34%
261	Eastern Hemlock	Tsuga canadensis	2.42	2.43%
298	Other Softwood	Other softwood	0.32	0.32%
315	Striped Maple	Acer pensylvanicum	1.22	1.22%
316	Red Maple	Acer rubrum	22.78	22.84%
318	Sugar Maple	Acer saccharum	15.76	15.80%
371	Yellow Birch	Betula alleghaniensis	10.33	10.36%
375	Paper Birch	Betula papyrifera	0.25	0.25%
531	American Beech	Fagus grandifolia	15.76	15.80%
541	White Ash	Fraxinus americana	0.93	0.93%
543	Black Ash	Fraxinus nigra	0.28	0.28%
743	Bigtooth Aspen	Populus grandidentata	0.96	0.96%
761	Pin Cherry	Prunus pensylvanica	0.36	0.36%
762	Black Cherry	Prunus serotina	7.31	7.33%
951	American Basswood	Tilia americana	0.21	0.21%
998	Other Live/Dead Hardwood	Other hardwood	0.78	0.78%
Total Native			99.75	100.00%
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Part VI.B.2 - the Project Area will naturally consist of a mixed species distribution where no single species' prevalence, measured as the percent of basal area of all live trees in the Project Area, exceeds the percentage value of standing live carbon shown under the heading 'Species Diversity Index' in the Assessment Area Data File.

Example:

Assessment Area: Adirondacks & Green Mountains/St. Lawrence & Mohawk Valley Northern Hardwoods (SDI: 65 percent)

Species ID	Common Name	Scientific Name	BA (sqft/ac)	Percent
012	Balsam Fir	Abies balsamea	3.06	3.17%
071	Tamarack	Larix laricina	0.02	0.02%
091	Norway Spruce	Picea abies	0.49	0.51%
094	White Spruce	Picea glauca	0.09	0.09%
095	Black Spruce	Picea mariana	0.08	0.08%
097	Red Spruce	Picea rubens	7.06	7.32%
125	Red Pine	Pinus resinosa	0.02	0.02%
129	Eastern White Pine	Pinus strobus	0.45	0.47%
241	Northern White-Cedar	Thuja occidentalis	0.12	0.12%
261	Eastern Hemlock	Tsuga canadensis	2.02	2.10%
298	Other Softwood	Other softwood	0.02	0.02%
315	Striped Maple	Acer pensylvanicum	1.42	1.47%
316	Red Maple	Acer rubrum	22.85	23.69%
318	Sugar Maple	Acer saccharum	18.18	18.85%
371	Yellow Birch	Betula alleghaniensis	10.65	11.04%
375	Paper Birch	Betula papyrifera	0.24	0.25%
531	American Beech	Fagus grandifolia	18.05	18.71%
541	White Ash	Fraxinus americana	1.06	1.10%
543	Black Ash	Fraxinus nigra	0.18	0.19%
743	Bigtooth Aspen	Populus grandidentata	1.12	1.16%
761	Pin Cherry	Prunus pensylvanica	0.41	0.42%
762	Black Cherry	Prunus serotina	7.89	8.18%
951	American Basswood	Tilia americana	0.14	0.15%
998	Other Live/Dead Hardwood	Other hardwood	0.84	0.88%
Total (weighted by strata acres)			96.46	100.00%

Assessment Area: Adirondacks & Green Mountains/St. Lawrence & Mohawk Valley Northeast

Conifers (SDI: 65 percent)

Species ID	Common Name	Scientific Name	BA (sqft/ac)	Percent
012	Balsam Fir	Abies balsamea	26.37	22.09%
071	Tamarack	Larix laricina	0.44	0.37%
091	Norway Spruce	Picea abies	1.94	1.63%
095	Black Spruce	Picea mariana	4.02	3.37%
097	Red Spruce	Picea rubens	27.10	22.71%
125	Red Pine	Pinus resinosa	0.51	0.43%
129	Eastern White Pine	Pinus strobus	2.00	1.68%
241	Northern White-Cedar	Thuja occidentalis	1.21	1.01%
261	Eastern Hemlock	Tsuga canadensis	4.81	4.03%
298	Other Softwood	Other softwood	1.34	1.12%
315	Striped Maple	Acer pensylvanicum	0.19	0.16%
316	Red Maple	Acer rubrum	24.20	20.27%
318	Sugar Maple	Acer saccharum	3.94	3.30%
371	Yellow Birch	Betula alleghaniensis	9.69	8.12%
375	Paper Birch	Betula papyrifera	0.25	0.21%
531	American Beech	Fagus grandifolia	4.63	3.88%
541	White Ash	Fraxinus americana	0.34	0.29%
543	Black Ash	Fraxinus nigra	0.72	0.60%
743	Bigtooth Aspen	Populus grandidentata	0.22	0.18%
761	Pin Cherry	Prunus pensylvanica	0.17	0.14%
762	Black Cherry	Prunus serotina	4.37	3.66%
951	American Basswood	Tilia americana	0.53	0.45%
998	Other Live/Dead Hardwood	Other hardwood	0.38	0.32%
Total (weighted by strata acres)			119.35	100.00%

Part VI.B.3b - Please see Part V.I – 4.68% of the Project Area is older than 20 years old.

Part VI.B.4 – if the project does not meet the maximum of 1% of standing live stocks or 1 ton of carbon (C), then the project will ensure that structural elements are retained in sufficient quantities throughout the project life by continuing to implement project activities that do not include the active harvest or removal of standing or lying dead wood. Structural elements are also incorporated into management planning and through enrollment in the Sustainable Forestry Initiative certification.

Example of analysis:

Year	Metric tonnes CO ₂ e		Metric tonnes C		Percent
	TSL	TSD	TSL	TSD	
2015	104.61	3.78	28.55	1.03	3.61%