

TREE INVENTORY REPORT

**Proposed Development at 10th Ave East, City of Owen
Sound, Ontario**

Prepared by EcoTec Environmental Consultants Inc. on behalf of Cobide
Engineering Inc.

DRAFT REPORT

January 2022

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for

Proposed Development at
10th Ave East, City of Owen Sound, Ontario

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1.0 INTRODUCTION

1.1 General

EcoTec Environmental Consultants Inc. (EcoTec) was retained by Cobide Engineering Inc. (Cobide) in order to complete a Tree Inventory at a property located within the City of Owen Sound. It is understood by EcoTec that the property owners are proposing to develop the lot located at 10th Avenue East to include a residential subdivision (Figure 1).

EcoTec collected and analyzed the inventory data to understand species composition and tree condition.

1.2 Site Description and Location

The subject property is located at the end of 10th Avenue East, within the City of Owen Sound. The property is identified by Municipal roll number 425901000633806; Lot 7. The property spans 2.62 hectares and is currently vacant, containing only natural environment features.



Figure 1. Map of proposed development area at 10th Avenue East, Owen Sound.

2.0 Methodology

Using a Geo 7X 10cm GPS unit, and a diameter tape, tree measurements were obtained following guidelines provided by the City of Owen Sound. The location, diameter, species name, health of tree and retention status were all recorded for trees located within the property, as well as on the property boundary, where works may occur within the critical root zone.

As per the communications with the City of Owen Sound, all trees with a Diameter Breast Height (DBH) measurement of 10 cm or greater were inventoried. Trees whose Critical Root Zone may be impacted by construction activities were also inventoried.

3.0 Existing Conditions

The forest stand that is located within the study area is part of a contiguous woodlot that is approximately 1.02 hectares, and spans both north and south of the project limits. The forest stand can be described as an uplands deciduous forest stand. Trees along the perimeter of the study area were inventoried and consisted mostly of Carolina poplar (*Populus x canadensis*) at the western edge of the study area.

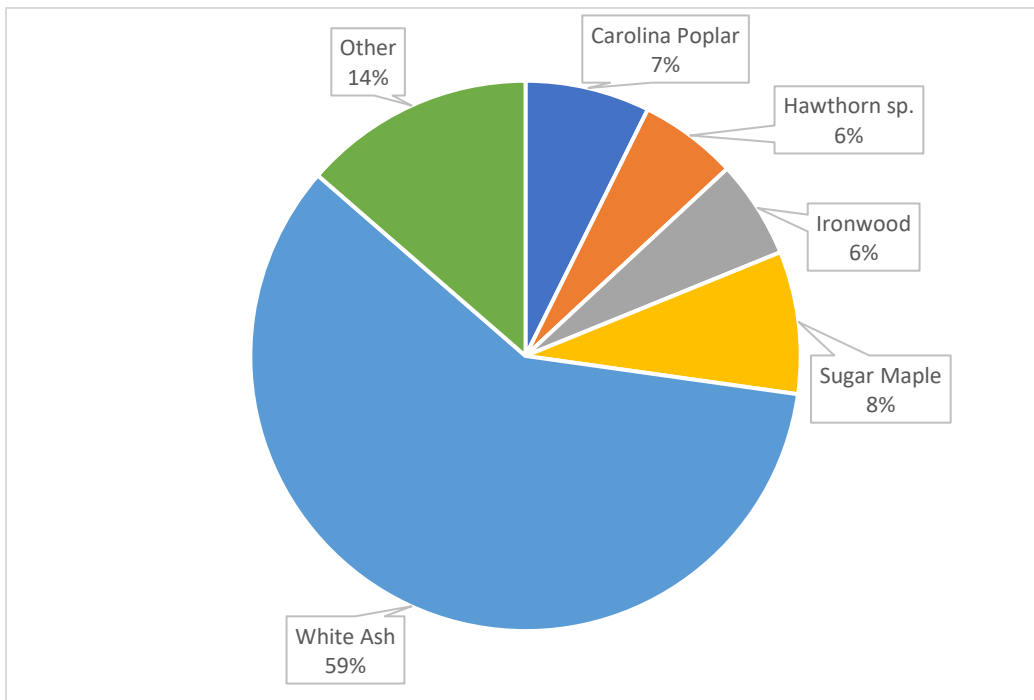


Figure 2. Tree composition of the most populous tree species within the study area.

3.1 Species Diversity

Within the study area, 191 trees were inventoried. Figure 2 shows the composition of the most populous species. The three most populous species inventoried are native species; Ironwood (*Ostrya virginiana*) 6% cover, sugar maple (*Acer saccharum*) 8% cover, and white ash (*Fraxinus americana*) 59% of cover.

Other trees that are non-native that were inventoried include apple species (*Malus sp.*), Scots pine (*Pinus sylvestris*), and European buckthorn (*Rhamnus cathartica*). A comprehensive list of trees inventoried can be found in Appendix A and a map with locates can be found in Appendix B.

3.2 Tree Condition

The most populous species within the inventory is the white ash. In Ontario, ash trees have been impacted by the Emerald Ash Borer (*Agilus planipennis*) (EAB) (Government of Canada, 2021), signs of the EAB were noted on ash trees throughout the study area. The assumption is that most of the ash trees are likely being impacted by the EAB, even if no physical signs were noted, therefore leading to most ash trees within the study area being given a health assessment of “Fair”.

The overall tree stand health is “Fair” with approximately 62% of trees inventoried having some indication of decay, or disease. Large dead trees found within the study area were mostly sugar maples or ironwood. Trees on the western periphery of the study area that were inventoried were mostly Carolina poplars in excellent health. The trees on the fence line to the north of the study area were in varying health condition.

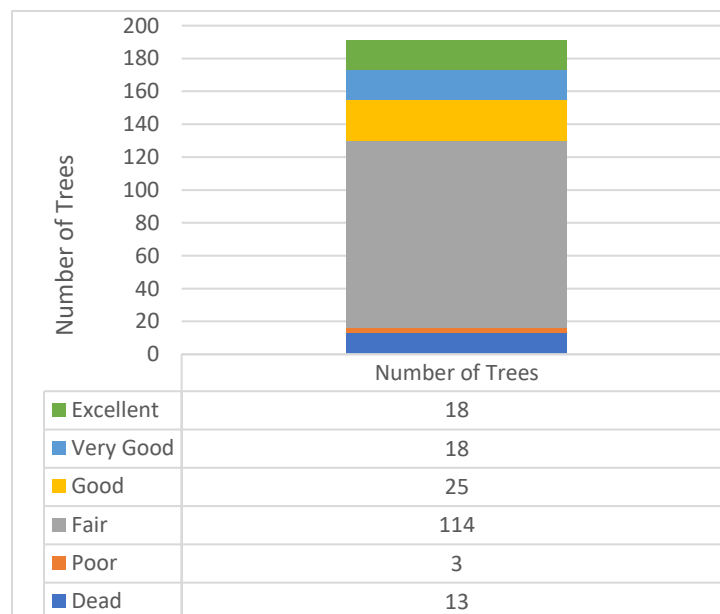


Figure 3. Condition of inventoried trees within the study area.

4.0 Conclusions and Recommendations

In order to accommodate the development of the proposed subdivision at 10th Avenue East in Owen Sound, it is understood that the entirety of the forest stand within the subject area will be removed. Trees to be retained include the trees on adjacent lands on the western extent, as well as the northern fence line.

A tree preservation plan should be developed to protect trees on adjacent lands from any potential impact from the proposed development as per the City of Owen Sound *Residential Tree Preservation Policy*.

As per the City of Owen Sound *Residential Tree Preservation Policy*, where trees cannot be retained due to development, the removal of trees shall be permitted however, the trees shall be replaced at a rate of 2:1. The replacement of trees excludes nuisance or scrub type trees.

5.0 References

City of Owen Sound. (2004). Residential Tree Preservation Policy. Retrieved from <https://owensound.ca>

Government of Canada. (2021, 11 01). Government of Canada - Emerald Ash Borer Factsheet. Retrieved from Government of Canada: <https://www.nrcan.gc.ca/forests/fire-insects-disturbances/top-insects/13395>

APPENDIX A: Tree Inventory List

ID#	Species Common Name	Scientific Name	Diameter Breast Height (DBH)	Health of Tree	Status
1	Scots Pine	<i>Pinus sylvestris</i>	20.2	Excellent	Retain
2	Scots Pine	<i>Pinus sylvestris</i>	21.4	Excellent	Retain
3	Eastern White Cedar	<i>Thuja occidentalis</i>	13.5	Excellent	Retain
4	Carolina Poplar	<i>Populus x canadensis</i>	50.0	Excellent	Retain
5	Carolina Poplar	<i>Populus x canadensis</i>	21.0	Excellent	Retain
6	Carolina Poplar	<i>Populus x canadensis</i>	35.0	Excellent	Retain
7	Carolina Poplar	<i>Populus x canadensis</i>	50.0	Excellent	Retain
8	Carolina Poplar	<i>Populus x canadensis</i>	35.0	Excellent	Retain
9	Carolina Poplar	<i>Populus x canadensis</i>	38.0	Excellent	Retain
10	Carolina Poplar	<i>Populus x canadensis</i>	78.0	Excellent	Retain
11	Carolina Poplar	<i>Populus x canadensis</i>	38.0	Excellent	Retain
12	Carolina Poplar	<i>Populus x canadensis</i>	36.0	Excellent	Retain
13	Carolina Poplar	<i>Populus x canadensis</i>	35.0	Excellent	Retain
14	Carolina Poplar	<i>Populus x canadensis</i>	28.0	Excellent	Retain
15	Carolina Poplar	<i>Populus x canadensis</i>	30.0	Excellent	Retain
16	Carolina Poplar	<i>Populus x canadensis</i>	25.0	Excellent	Retain
17	Carolina Poplar	<i>Populus x canadensis</i>	28.0	Excellent	Retain
18	Apple sp.	<i>Malus sp.</i>	23.1	Dead	Retain
19	Black Walnut	<i>Juglans nigra</i>	22.3	Fair	Retain
20	White Ash	<i>Fraxinus americana</i>	28.1	Fair	Retain
21	Sugar Maple	<i>Acer saccharum</i>	88.2	Fair	Retain
22	European Buckthorn	<i>Rhamnus cathartica</i>	11.9	Excellent	Remove
23	Hawthorn sp.	<i>Crataegus sp.</i>	19.3	Good	Remove
24	Hawthorn sp.	<i>Crataegus sp.</i>	14.0	Good	Remove
25	Hawthorn sp.	<i>Crataegus sp.</i>	14.4	Good	Remove
26	Sugar Maple	<i>Acer saccharum</i>	17.4	Good	Remove
27	Sugar Maple	<i>Acer saccharum</i>	14.1	Good	Remove
28	Sugar Maple	<i>Acer saccharum</i>	10.1	Good	Remove
29	Sugar Maple	<i>Acer saccharum</i>	13.3	Good	Remove
30	Sugar Maple	<i>Acer saccharum</i>	11.5	Good	Remove
31	Sugar Maple	<i>Acer saccharum</i>	17.3	Good	Remove
32	White Ash	<i>Fraxinus americana</i>	20.6	Fair	Remove
33	Hawthorn sp.	<i>Crataegus sp.</i>	11.2	Fair	Remove
34	White Ash	<i>Fraxinus americana</i>	26.7	Fair	Remove

35	Sugar Maple	<i>Acer saccharum</i>	13.6	Good	Remove
36	White Ash	<i>Fraxinus americana</i>	15.0	Fair	Remove
37	White Ash	<i>Fraxinus americana</i>	17.6	Fair	Remove
38	White Ash	<i>Fraxinus americana</i>	27.7	Dead	Remove
39	Apple sp.	<i>Malus sp.</i>	12.0	Fair	Remove
40	Sugar Maple	<i>Acer saccharum</i>	19.8	Very Good	Remove
41	Sugar Maple	<i>Acer saccharum</i>	10.5	Very Good	Remove
42	Sugar Maple	<i>Acer saccharum</i>	13.3	Very Good	Remove
43	White Ash	<i>Fraxinus americana</i>	10.1	Fair	Remove
44	White Ash	<i>Fraxinus americana</i>	12.4	Fair	Remove
45	White Ash	<i>Fraxinus americana</i>	16.2	Fair	Remove
46	White Ash	<i>Fraxinus americana</i>	23.6	Fair	Remove
47	Sugar Maple	<i>Acer saccharum</i>	12.3	Good	Remove
48	White Ash	<i>Fraxinus americana</i>	17.5	Fair	Remove
49	White Ash	<i>Fraxinus americana</i>	10.5	Fair	Remove
50	White Ash	<i>Fraxinus americana</i>	11.1	Fair	Remove
51	White Ash	<i>Fraxinus americana</i>	27.7	Fair	Remove
52	White Ash	<i>Fraxinus americana</i>	13.8	Fair	Remove
53	White Ash	<i>Fraxinus americana</i>	17.8	Fair	Remove
54	White Ash	<i>Fraxinus americana</i>	10.8	Fair	Remove
55	White Ash	<i>Fraxinus americana</i>	23.2	Fair	Remove
56	White Ash	<i>Fraxinus americana</i>	12.6	Fair	Remove
57	White Ash	<i>Fraxinus americana</i>	15.7	Fair	Remove
58	White Ash	<i>Fraxinus americana</i>	12.7	Fair	Remove
59	White Ash	<i>Fraxinus americana</i>	11.1	Fair	Remove
60	White Ash	<i>Fraxinus americana</i>	10.6	Fair	Remove
61	White Ash	<i>Fraxinus americana</i>	11.5	Fair	Remove
62	White Ash	<i>Fraxinus americana</i>	19.9	Fair	Remove
63	White Ash	<i>Fraxinus americana</i>	11.7	Fair	Remove
64	Sugar Maple	<i>Acer saccharum</i>	106.5	Dead	Remove
65	White Ash	<i>Fraxinus americana</i>	16.1	Fair	Remove
66	White Ash	<i>Fraxinus americana</i>	15.1	Fair	Remove
67	White Ash	<i>Fraxinus americana</i>	14.2	Fair	Remove
68	White Ash	<i>Fraxinus americana</i>	10.2	Fair	Remove
69	White Ash	<i>Fraxinus americana</i>	11.1	Fair	Remove
70	White Ash	<i>Fraxinus americana</i>	10.7	Fair	Remove
71	White Ash	<i>Fraxinus americana</i>	16.0	Fair	Remove
72	White Ash	<i>Fraxinus americana</i>	11.8	Fair	Remove
73	White Ash	<i>Fraxinus americana</i>	14.0	Fair	Remove
74	White Ash	<i>Fraxinus americana</i>	18.4	Fair	Remove
75	Hawthorn sp.	<i>Crataegus sp.</i>	10.7	Fair	Remove

76	Sugar Maple	<i>Acer saccharum</i>	127.0	Dead	Remove
77	Apple sp.	<i>Malus sp.</i>	10.3	Dead	Remove
78	White Ash	<i>Fraxinus americana</i>	13.0	Fair	Remove
79	White Ash	<i>Fraxinus americana</i>	25.0	Fair	Remove
80	White Ash	<i>Fraxinus americana</i>	17.6	Fair	Remove
81	White Ash	<i>Fraxinus americana</i>	10.0	Fair	Remove
82	White Ash	<i>Fraxinus americana</i>	13.3	Fair	Remove
83	White Ash	<i>Fraxinus americana</i>	16.8	Fair	Remove
84	White Ash	<i>Fraxinus americana</i>	10.2	Fair	Remove
85	White Ash	<i>Fraxinus americana</i>	14.6	Fair	Remove
86	White Ash	<i>Fraxinus americana</i>	23.1	Dead	Remove
87	White Ash	<i>Fraxinus americana</i>	19.1	Fair	Remove
88	Ironwood	<i>Ostrya virginiana</i>	16.7	Very Good	Remove
89	Ironwood	<i>Ostrya virginiana</i>	13.7	Very Good	Remove
90	Ironwood	<i>Ostrya virginiana</i>	17.5	Very Good	Remove
91	Ironwood	<i>Ostrya virginiana</i>	10.5	Very Good	Remove
92	White Ash	<i>Fraxinus americana</i>	18.7	Fair	Remove
93	Ironwood	<i>Ostrya virginiana</i>	10.7	Very Good	Remove
94	Ironwood	<i>Ostrya virginiana</i>	10.2	Very Good	Remove
95	White Ash	<i>Fraxinus americana</i>	16.4	Fair	Remove
96	White Ash	<i>Fraxinus americana</i>	10.8	Fair	Remove
97	White Ash	<i>Fraxinus americana</i>	20.6	Fair	Remove
98	White Ash	<i>Fraxinus americana</i>	13.3	Fair	Remove
99	White Ash	<i>Fraxinus americana</i>	19.8	Fair	Remove
100	Sugar Maple	<i>Acer saccharum</i>	62.1	Good	Remove
101	White Ash	<i>Fraxinus americana</i>	18.6	Fair	Remove
102	White Ash	<i>Fraxinus americana</i>	10.0	Fair	Remove
103	European Buckthorn	<i>Rhamnus cathartica</i>	10.6	Very Good	Remove
104	White Ash	<i>Fraxinus americana</i>	11.9	Fair	Remove
105	White Ash	<i>Fraxinus americana</i>	25.0	Poor	Remove
106	White Ash	<i>Fraxinus americana</i>	10.1	Fair	Remove
107	White Ash	<i>Fraxinus americana</i>	16.1	Fair	Retain
108	Ironwood	<i>Ostrya virginiana</i>	11.0	Very Good	Retain
109	White Ash	<i>Fraxinus americana</i>	11.1	Fair	Retain
110	White Ash	<i>Fraxinus americana</i>	11.0	Fair	Retain
111	Sugar Maple	<i>Acer saccharum</i>	12.5	Very Good	Retain
112	White Ash	<i>Fraxinus americana</i>	10.9	Fair	Retain
113	European Buckthorn	<i>Rhamnus cathartica</i>	11.0	Very Good	Retain
114	White Ash	<i>Fraxinus americana</i>	38.2	Dead	Retain
115	White Ash	<i>Fraxinus americana</i>	10.3	Fair	Retain
116	White Ash	<i>Fraxinus americana</i>	21.9	Poor	Retain

117	White Ash	<i>Fraxinus americana</i>	18.5	Fair	Retain
118	White Ash	<i>Fraxinus americana</i>	10.9	Fair	Retain
119	European Buckthorn	<i>Rhamnus cathartica</i>	11.2	Fair	Remove
120	Ironwood	<i>Ostrya virginiana</i>	54.7	Dead	Remove
121	Ironwood	<i>Ostrya virginiana</i>	67.4	Dead	Remove
122	Apple sp.	<i>Malus sp.</i>	22.0	Dead	Remove
123	White Ash	<i>Fraxinus americana</i>	10.9	Fair	Remove
124	White Ash	<i>Fraxinus americana</i>	14.9	Fair	Remove
125	White Ash	<i>Fraxinus americana</i>	17.5	Fair	Remove
126	White Ash	<i>Fraxinus americana</i>	11.1	Fair	Remove
127	White Ash	<i>Fraxinus americana</i>	10.0	Fair	Remove
128	White Ash	<i>Fraxinus americana</i>	12.8	Fair	Remove
129	White Ash	<i>Fraxinus americana</i>	22.8	Fair	Remove
130	White Ash	<i>Fraxinus americana</i>	13.9	Fair	Remove
131	Ironwood	<i>Ostrya virginiana</i>	22.5	Very Good	Remove
132	Ironwood	<i>Ostrya virginiana</i>	13.2	Very Good	Remove
133	White Ash	<i>Fraxinus americana</i>	12.7	Fair	Remove
134	White Ash	<i>Fraxinus americana</i>	10.1	Fair	Remove
135	White Ash	<i>Fraxinus americana</i>	10.5	Fair	Remove
136	White Ash	<i>Fraxinus americana</i>	14.4	Fair	Remove
137	White Ash	<i>Fraxinus americana</i>	11.0	Fair	Remove
138	White Ash	<i>Fraxinus americana</i>	13.5	Fair	Remove
139	White Ash	<i>Fraxinus americana</i>	11.0	Fair	Remove
140	White Ash	<i>Fraxinus americana</i>	11.2	Fair	Remove
141	White Ash	<i>Fraxinus americana</i>	11.4	Fair	Remove
142	Hawthorn Sp.	<i>Crataegus sp.</i>	16.5	Dead	Remove
143	White Ash	<i>Fraxinus americana</i>	11.5	Fair	Remove
144	White Ash	<i>Fraxinus americana</i>	13.8	Fair	Remove
145	White Ash	<i>Fraxinus americana</i>	13.5	Fair	Remove
146	White Ash	<i>Fraxinus americana</i>	14.2	Fair	Remove
147	White Ash	<i>Fraxinus americana</i>	11.4	Fair	Remove
148	White Ash	<i>Fraxinus americana</i>	12.6	Fair	Remove
149	White Ash	<i>Fraxinus americana</i>	17.7	Fair	Remove
150	White Ash	<i>Fraxinus americana</i>	13.0	Fair	Remove
151	White Ash	<i>Fraxinus americana</i>	11.2	Fair	Remove
152	White Ash	<i>Fraxinus americana</i>	18.1	Fair	Remove
153	White Ash	<i>Fraxinus americana</i>	13.1	Fair	Remove
154	Hawthorn Sp.	<i>Crataegus sp.</i>	12.0	Fair	Remove
155	White Ash	<i>Fraxinus americana</i>	10.1	Fair	Remove
156	White Ash	<i>Fraxinus americana</i>	21.7	Fair	Remove
157	White Ash	<i>Fraxinus americana</i>	10.2	Fair	Remove

158	White Ash	<i>Fraxinus americana</i>	10.4	Fair	Remove
159	White Ash	<i>Fraxinus americana</i>	12.2	Fair	Remove
160	Hawthorn Sp.	<i>Crataegus sp.</i>	13.3	Fair	Remove
161	White Ash	<i>Fraxinus americana</i>	15.1	Fair	Remove
162	White Ash	<i>Fraxinus americana</i>	14.5	Fair	Remove
163	White Ash	<i>Fraxinus americana</i>	11.9	Fair	Remove
164	White Ash	<i>Fraxinus americana</i>	15.8	Fair	Retain
165	Balsam Poplar	<i>Populus balsamifera</i>	14.0	Good	Remove
166	Locust sp.	<i>Robinia sp.</i>	35.5	Fair	Remove
167	Canada Plum	<i>Prunus nigra</i>	11.3	Good	Retain
168	Canada Plum	<i>Prunus nigra</i>	13.2	Good	Remove
169	Large-toothed Aspen	<i>Populus grandidentata</i>	15.5	Good	Remove
170	White Ash	<i>Fraxinus americana</i>	12.0	Good	Remove
171	Canada Plum	<i>Prunus nigra</i>	168.0	Good	Remove
172	Canada Plum	<i>Prunus nigra</i>	16.5	Good	Retain
173	Manitoba Maple	<i>Acer negundo</i>	15.2	Very Good	Remove
174	Manitoba Maple	<i>Acer negundo</i>	20.5	Very Good	Retain
175	White Ash	<i>Fraxinus americana</i>	18.7	Fair	Retain
176	White Ash	<i>Fraxinus americana</i>	19.8	Poor	Retain
177	White Ash	<i>Fraxinus americana</i>	20.9	Dead	Retain
178	White Ash	<i>Fraxinus americana</i>	14.6	Fair	Retain
179	White Ash	<i>Fraxinus americana</i>	16.5	Fair	Retain
180	White Ash	<i>Fraxinus americana</i>	11.8	Fair	Retain
181	White Ash	<i>Fraxinus americana</i>	14.0	Fair	Retain
182	White Ash	<i>Fraxinus americana</i>	18.2	Fair	Retain
183	Apple sp.	<i>Malus sp.</i>	20.0	Good	Retain
184	Apple sp.	<i>Malus sp.</i>	15.8	Good	Retain
185	White Ash	<i>Fraxinus americana</i>	24.2	Fair	Retain
186	American Elm	<i>Ulmus Americana</i>	21.0	Fair	Retain
187	European Buckthorn	<i>Rhamnus cathartica</i>	15.0	Very Good	Retain
188	Hawthorn sp.	<i>Crataegus sp.</i>	24.5	Good	Retain
189	Hawthorn sp.	<i>Crataegus sp.</i>	10.2	Good	Retain
190	Hawthorn sp.	<i>Crataegus sp.</i>	12.5	Good	Retain
191	American Elm	<i>Ulmus Americana</i>	40.4	Good	Retain

APPENDIX B: Tree Inventory Maps

