

1 **Black Ash**

2 **Ontario Government Response Statement**

3 **Protecting and Recovering Species at Risk in Ontario**

4 Species at risk recovery is a key part of protecting Ontario's biodiversity. The
5 *Endangered Species Act, 2007* (ESA) is the Ontario government's legislative
6 commitment to protecting and recovering species at risk and their habitats.

7 Under the ESA, the government must ensure that a recovery strategy is prepared for
8 each species that is listed as endangered or threatened. A recovery strategy provides
9 science-based advice to government on what is required to achieve recovery of a
10 species.

11 Generally, within nine months after a recovery strategy is prepared, the ESA requires
12 the government to publish a statement summarizing the government's intended actions
13 and priorities in response to the recovery strategy. The response statement is the
14 government's policy response to the scientific advice provided in the recovery strategy.
15 In addition to the strategy, the government response statement considers (where
16 available) input from Indigenous communities and organizations, stakeholders, other
17 jurisdictions, and members of the public. It reflects the best available local and scientific
18 knowledge, including Indigenous Knowledge where it has been shared by communities
19 and Knowledge Holders, as appropriate, and may be adapted if new information
20 becomes available. In implementing the actions in the response statement, the ESA
21 allows the government to determine what is feasible, taking into account social, cultural
22 and economic factors.

23 The [Recovery Strategy for the Black Ash \(*Fraxinus nigra*\) in Ontario](#) was completed on
24 September 6, 2022.

25 Black Ash is a deciduous tree that reaches heights of 15 to 27 m. It has compound
26 leaves with 7 to 11 leaflets and corky bark. It is found in moist to wet habitats through
27 much of the province. The species is culturally important to many Indigenous peoples
28 and is used for a variety of purposes.

29 **Protecting and Recovering Black Ash**

DRAFT Government Response Statement
to the
Recovery Strategy for the Black Ash in Ontario

30 Black Ash is listed as an endangered species under the ESA. The ESA prohibits harm
31 or harassment and possession, transportation and trade (including buying, selling, or
32 offering to buy or sell) of endangered species, as well as damage or destruction of their
33 habitat, without authorization or complying with the requirements of a regulatory
34 exemption. However, all ESA protections for Black Ash were temporarily suspended
35 through a Minister's regulation for a two-year period beginning January 26, 2022, to
36 allow time to develop an approach to support Black Ash protection and recovery.

37 Globally, Black Ash is found only in North America. Black Ash occurs from northern
38 Ontario, Canada ranging southward to Illinois, Virginia, and Delaware in the United
39 States, and longitudinally from southeastern Manitoba in the west to western
40 Newfoundland. In Canada, the species is common over much of its range, and is found
41 in Manitoba, Ontario, Quebec, the Maritime provinces, and in Newfoundland. The
42 species is found farther north than any other ash species, and approximately half of the
43 species' global range is located within Canada, with one quarter of the global range
44 being in Ontario.

45 In Ontario, the species is widespread and distributed throughout much of the province,
46 reaching its northern limit at approximately 53°N, near the community of Wunnumin
47 Lake First Nation, approximately 500 km north of Thunder Bay. The Ontario population
48 is currently estimated at over 80 million reproductively mature individual trees,
49 distributed over approximately 1.2 million hectares. A large proportion of the Ontario
50 population is located on Crown lands, including in managed Crown forests and
51 provincial parks and protected areas, however the species also occurs on privately
52 owned lands. Forest management activities within the Crown managed forest are
53 required by law to be managed sustainably (e.g. for long-term forest health).

54 Black Ash is a medium-sized tree typically found in moist to wet habitats including
55 swamps, fens, floodplain forest and shorelines, although it occasionally occurs in moist
56 microsites within upland habitats. Black Ash is moderately shade tolerant when young
57 (as seedlings and young saplings), but its light requirements increase as it ages.
58 Although it occurs at low densities across much of its range, Black Ash can be a
59 keystone, foundational species in some wet forested ecosystems and plays an
60 important role in regulating hydrology and maintaining site conditions for associated
61 species. It can also support wildlife species, including several species at risk, by
62 providing food, shelter and habitat. One insect species, the Canadian Sphinx Moth
63 (*Sphinx canadensis*) is thought to rely almost exclusively on Black Ash as its larval food
64 source.

DRAFT Government Response Statement
to the
Recovery Strategy for the Black Ash in Ontario

65 Black Ash is a long-lived tree that does not begin to produce fruit until it is between 30
66 and 40 years of age. Each seed is housed within the fruit (samara) that is dispersed by
67 wind and water. Black Ash seed production is considered to be low in most years with
68 information from one part of its range suggesting the interval between relatively large
69 seed crops averages about 3.6 years and ranges from one to eight years. After
70 dispersal, the seeds generally remain viable for a few years, but, if dormancy is
71 prolonged, can remain viable for longer periods (e.g. as many as eight years). Seed
72 viability may be a limiting factor for recovery. Black Ash readily produces vegetative
73 sprouts from cut stumps, stems and root crowns, especially following fire, browsing or
74 cutting and can also produce epicormic shoots (shoots produced from dormant buds
75 under the bark of the trunk, stems or branches) when affected by pests or pathogens.

76 Black Ash trees are used for a variety of purposes including lumber, fuelwood, and
77 industrial biomass material. The wood is strong and highly pliable, making it
78 commercially valuable for items such as tool handles, furniture, cabinets, interior
79 finishes and flooring. It can also be used for electric guitar bodies, traditional bows and
80 is well-known for its use in woven baskets.

81 Black Ash is culturally important to Indigenous peoples. The species has been used for
82 centuries in the production of woven baskets, snowshoe frames and canoe ribs. Other
83 historical and current uses by Indigenous peoples include dyes, bows and arrow shafts,
84 beaver hoops for tanning hides, and traditional medicines. Black Ash basketry is an
85 important component of the history, cultures and economies of many Indigenous
86 peoples. Baskets are woven using thin, flexible strips of wood which are produced by
87 pounding a Black Ash log with a mallet or axe until its growth rings separate. Basket
88 making skills are traditionally passed from weaver to weaver. Reduced availability of
89 Black Ash trees in an area impacts the ability of local Indigenous communities to
90 continue to pass skills and knowledge on to future generations and may hinder cultural
91 revitalization efforts.

92 The primary threat to Black Ash is the invasive Emerald Ash Borer (*Agilus planipennis*)
93 or EAB, a wood-boring beetle that feeds on trees of all ash species in Canada. This
94 insect is native to northeastern Asia and was introduced to North America in the 1990s.
95 EAB is now widespread in southern and central Ontario and has been detected in the
96 Sault Ste. Marie and Thunder Bay areas. It causes large-scale mortality of ash trees
97 within 4 to 10 years of its arrival in an area. As EAB can affect both mature trees and
98 younger saplings it has the potential to cause mortality of regenerating ash trees before
99 they are able to reach maturity and produce seed. Of the Ontario ash species, Black
100 Ash is thought to be particularly vulnerable to EAB infestation and has experienced
101 considerable declines and local extirpation in the most affected parts of its range. The

DRAFT Government Response Statement
to the
Recovery Strategy for the Black Ash in Ontario

102 loss of Black Ash trees can also impact the surrounding ecological community by
103 increasing susceptibility to invasive species and raising water levels. This may impact
104 habitat suitability for Black Ash and other co-occurring species. In some cases, dead
105 and dying Black Ash trees may present human safety concerns and require removal as
106 a result.

107 Although EAB can cause Black Ash mortality rates up to 99 per cent, a small
108 percentage of ash trees do appear to survive EAB infestation and remain in healthy
109 condition. The surviving trees are sometimes referred to as 'lingering ash'. There is
110 uncertainty as to why some trees survive, and it is thought that the genetic make-up of
111 individual trees may play a role in some circumstances.

112 Most of the species' range in Ontario is currently unaffected by EAB; however, the
113 Committee on the Status of Species at Risk in Ontario's [species evaluation report](#)
114 (2020) indicates that it is estimated that 53 per cent of the Ontario range of Black Ash is
115 currently susceptible to EAB invasion. This estimate is based on analyses that suggest
116 EAB is limited by seasonal low winter temperatures in the north (between -26°C and -
117 35°C). Recent research has demonstrated that EAB can survive in colder temperatures
118 than initially thought (up to -50°C), and this is likely to affect the amount of the Ontario
119 range that is considered currently susceptible to invasion. Furthermore, more of the
120 species' range may become vulnerable to EAB as winter temperatures rise due to
121 climate change. Declines caused by EAB are predicted to exceed 70 per cent over the
122 next 100 years.

123 Invasive species may impact Black Ash trees directly as well as impact the suitability of
124 habitat. Introduced pathogens are suspected to be responsible for ash declines in
125 Atlantic Canada and may present a future threat to the species in Ontario. Sustainable
126 forest practices are not considered a main threat to Black Ash; however, if clearcutting
127 of areas occurs it may affect habitat conditions by raising water levels which may result
128 in changes to habitat suitability. Incidental and targeted harvest of Black Ash is known
129 to occur and may have local impacts, but it is not believed to be significantly affecting
130 populations on a large scale.

131 **Emerald Ash Borer (EAB)**

132 In Canada, EAB is regulated by the federal Canadian Food Inspection Agency (CFIA)
133 who has the lead role in respect of this insect pest addressing the environmental and
134 economic threat of EAB on native ash trees in Ontario.

DRAFT Government Response Statement
to the
Recovery Strategy for the Black Ash in Ontario

135 Although the initial response to the detection of EAB in North America involved removal
136 of ash trees to create a quarantine zone and prevent further spread, this practice has
137 not proven to be successful and removal of ash trees for this purpose is no longer
138 recommended. Eradication of EAB from Ontario is not considered likely, and current
139 management efforts are focused on slowing its spread.

140 CFIA regulations restrict the movement of ash trees, logs, wood, and firewood of all tree
141 species out of regulated areas. As part of a long-term strategy to reduce the effects
142 of EAB on native ash trees, the CFIA approved the release of four species of parasitoid
143 wasps as biological control agents to reduce the EAB population and destruction of
144 Canada's ash trees. These wasp species are small and do not sting. The specific
145 species of wasps differ in their ability to parasitize EAB larvae and eggs in sapling and
146 mature ash trees, and a decision was made to approve four species to ensure their
147 presence even if weather events may favour one species over another. In collaboration
148 with the province, the federal government initiated parasitoid wasp releases in Ontario
149 in 2013, and the results of these efforts are being monitored through scientific studies.
150 While there are early positive signs from these biological control efforts, they require
151 significant financial investment, and the long-term success of the program and its
152 contribution to EAB management is still being evaluated. Other native predators and
153 parasitoids (e.g. woodpeckers and other insects) may also play a role in contributing to
154 EAB control in Ontario.

155 Ontario has also supported the development of approval of pesticides (e.g. TreeAzin) to
156 reduce or delay the impacts of EAB on native ash trees. These pesticides have been
157 injected in the base of some high-value ash trees. While these methods have shown
158 positive results, they are costly, require repeated treatment, and are likely not feasible
159 for large-scale application.

160 In addition to the contributions outlined above, the Ontario government is also
161 undertaking action through efforts that include conducting and refining techniques for
162 surveying for EAB, monitoring ash declines, and undertaking outreach and
163 communications to limit the spread of EAB.

164 Due to the economic and environmental threat of EAB to ash trees in Canada,
165 the [National Tree Seed Centre](#) has taken the lead in Canada in preserving native ash
166 seeds for genetic conservation, including Black Ash. The National Tree Seed Centre is
167 a national facility that collects, processes, tests, and stores the seeds of Canadian tree
168 and shrub species for conservation and research purposes. MNR is playing a role in

DRAFT Government Response Statement
to the
Recovery Strategy for the Black Ash in Ontario

169 the conservation of Ontario ash species through involvement in ash seed collection
170 efforts.

171 Despite efforts to address the threat of EAB, Black Ash is predicted to continue to
172 decline in Ontario for the foreseeable future. Recovery approaches will therefore focus
173 on continuing to reduce the severity of the threat posed by EAB and other co-occurring
174 threats, and on increasing knowledge and improving our understanding of Black Ash
175 and ways to mitigate threats, in order to support the future restoration of Black Ash
176 populations when and where feasible.

177 Conservation partners are encouraged to collaborate with appropriate agencies to
178 research and implement recovery efforts and techniques for Black Ash. The National
179 Tree Seed Centre in New Brunswick is currently providing leadership in the preservation
180 of ash seed for genetic conservation. The Canadian Forest Service (CFS)
181 and CFIA continue to lead federal EAB research and management initiatives; the former
182 leading Canada's biocontrol program with collaboration from the MNRF. Ontario will
183 continue to collaborate with other jurisdictions to mitigate the threat of EAB to native ash
184 trees, including Black Ash. In addition to these province-wide recovery initiatives, local
185 or regional recovery efforts should be implemented to address threats and conserve the
186 species at a local scale. Conducting research associated with threat mitigation
187 techniques, as well as investigating biological characteristics and responses of the
188 species to recovery efforts will assist in filling knowledge gaps. Continuing to monitor
189 populations, as well as the severity and scope of threats and their impacts, will also
190 support effective implementation of recovery actions.

191 **Government's Recovery Goal**

192 The government's short-term goal for the recovery of Black Ash is:

- 193 ○ in areas where moderate to severe mortality of Black Ash has occurred as the result
194 of EAB, to reduce the severity and mitigate the impacts of the threat of EAB, to
195 preserve remaining genetic diversity, and maintain or improve habitat conditions
- 196 ○ in areas currently considered susceptible to the threat of EAB but where moderate to
197 severe mortality has not yet occurred, to improve the resilience of Black Ash
198 populations and their habitat to threat of EAB, to reduce the severity and mitigate the
199 impacts of the threat of EAB, and to preserve the genetic diversity currently present
- 200 ○ in areas considered not currently susceptible to the threat of EAB, to prevent
201 introduction of EAB, to maintain the current population abundance and distribution of
202 Black Ash and to preserve genetic diversity currently present

DRAFT Government Response Statement
to the
Recovery Strategy for the Black Ash in Ontario

203 The long-term goal is to reduce the severity of the threat of Emerald Ash Borer and
204 other contemporary threats to Black Ash, and when and where feasible and appropriate,
205 to restore Black Ash in areas where it was locally extirpated or experienced significant
206 declines as a result of Emerald Ash Borer and other contemporary threats.

207 **Actions**

208 Protecting and recovering species at risk is a shared responsibility. No single agency or
209 organization has the knowledge, authority or financial resources to protect and recover
210 all of Ontario's species at risk. Successful recovery requires inter-governmental co-
211 operation and the involvement of many individuals, organizations and communities. In
212 developing the government response statement, the government considered what
213 actions are feasible for the government to lead directly and what actions are feasible for
214 the government to support its conservation partners to undertake.

215 **Government-led Actions**

216 To help protect and recover Black Ash, the government will directly undertake the
217 following actions:

- 218 • Develop and implement policy and regulatory tools, as appropriate, that consider
219 the best way to protect and recover Black Ash and manage Emerald Ash Borer
220 while taking into account social and economic realities of Ontarians.
- 221 • Support actions to mitigate the threat of Emerald Ash Borer on species at risk,
222 including Black Ash, through strategic funding opportunities.
- 223 • Continue to collaborate with federal partners, such as Natural Resources
224 Canada's Canadian Forest Service, in implementing actions related to the
225 genetic conservation of native ash trees, and to mitigate the impact of Emerald
226 Ash Borer on native ash trees.
- 227 • Conserve the genetic diversity of Ontario's forest tree species, including Black
228 Ash, through actions such as the establishment of the Ontario Tree Seed Genetic
229 Archive and/or by contributing to other seed archiving efforts.
- 230 • Continue to undertake communications and outreach to increase public
231 awareness of species at risk and invasive species in Ontario (e.g. through
232 Ontario Parks Discovery Program, where appropriate).

DRAFT Government Response Statement
to the
Recovery Strategy for the Black Ash in Ontario

- 233 • Continue to monitor populations and mitigate threats to Black Ash and its habitat
234 in provincially protected areas, where feasible and appropriate.
- 235 • Educate other agencies and authorities involved in planning and environmental
236 assessment processes on the protection requirements under the ESA.
- 237 • Encourage the submission of Black Ash data to Ontario's central repository
238 through the [NHIC \(Rare species of Ontario\) project in iNaturalist](#) or directly
239 through the [Natural Heritage Information Centre](#).
- 240 • Continue to support conservation, agency, municipal and industry partners, and
241 Indigenous communities and organizations to undertake activities to protect and
242 recover Black Ash. Support will be provided where appropriate through funding,
243 agreements, permits and/or advisory services.
- 244 • Work with all levels of government, communities and sectors to take action on
245 climate change, and to report on progress in reducing greenhouse gas
246 emissions.
- 247 • Continue to manage Crown forests in a manner that minimizes adverse impacts
248 to species at risk and their habitats.
- 249 • Continue to implement the *Ontario Invasive Species Strategic Plan (2012)* to
250 address the invasive species (e.g. Emerald Ash Borer) that threaten Black Ash
251 and its habitat.
- 252 • Conduct a review of progress toward the protection and recovery of Black Ash
253 within 10 years of the publication of this document.

DRAFT Government Response Statement
to the
Recovery Strategy for the Black Ash in Ontario

254 **Government-supported Actions**

255 The government endorses the following actions as being necessary for the protection
256 and recovery of Black Ash. Actions identified as “high” may be given priority
257 consideration for funding under the Species at Risk Stewardship Program. Where
258 reasonable, the government will also consider the priority assigned to these actions
259 when reviewing and issuing authorizations under the ESA. Other organizations are
260 encouraged to consider these priorities when developing projects or mitigation plans
261 related to species at risk.

262 **Focus Area: Management and Protection**

263 Objective: Mitigate threats to Black Ash, improve its resilience to the threat of
264 EAB, and maintain or improve the quality of its habitat.

265 For the foreseeable future, Black Ash is expected to continue to decline in the areas of
266 its range that are susceptible to EAB. Archiving and preserving genetic material and
267 managing Black Ash habitat will allow for the future restoration of Black Ash populations
268 once mitigation efforts for EAB and other threats have progressed. It may also allow for
269 the production of trees with improved tolerance or resistance to EAB. While archiving of
270 genetic material across the species’ range is important, these actions are particularly
271 high priority in areas under current or imminent threat of EAB to ensure important
272 genetic variations or adaptive potential is not lost. Accordingly, identifying high-value
273 Black Ash trees and populations in these areas, and both preserving genetic material
274 and implementing site scale mitigation measures to address the threat of EAB are
275 important. Developing, updating, and implementing new and existing best management
276 practices will help to mitigate the effects certain activities may have on Black Ash and its
277 habitat and can also provide guidance on actions that can be taken to support its
278 recovery. In circumstances where Black Ash trees are harvested or must be removed,
279 providing guidance on the handling of EAB-infested wood will help to reduce the risk of
280 furthering the spread of EAB. When and where deemed appropriate and feasible,
281 implementation of efforts to restore Black Ash populations in areas where they have
282 been lost will be necessary to achieve Ontario’s recovery goal for the species.
283 Appropriate circumstances for restoration efforts may include when the severity of the
284 threat of EAB has been appropriately reduced or if individuals with improved EAB
285 resistance are available for planting. Implementation of the recovery efforts identified
286 below will require collaboration between science experts, landowners, land managers,
287 Indigenous peoples, all levels of government, stewardship organizations, and industry
288 stakeholders to be successful.

DRAFT Government Response Statement
to the
Recovery Strategy for the Black Ash in Ontario

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Actions:

1. **(High)** Work collaboratively to preserve Black Ash genetic material, with a focus on individuals with potential EAB resistance, in the form of tissue, seeds, vegetative parts or trees. This action may include preserving material in-situ (where it is growing naturally), or ex-situ (in artificial seed banks or in arboreta). In undertaking this action:
 - i. efforts should be made to coordinate the collection of genetic material to collectively achieve the conservation of genetic diversity of ecodistricts across the species' Ontario range (e.g. from at least 15 trees per occupied ecodistrict)
 - ii. priority should be given to areas under current or imminent threat of EAB

2. **(High – areas under current or imminent threat of EAB)** Work collaboratively to implement and evaluate the effectiveness and feasibility of measures to mitigate the impacts of EAB on Black Ash. Mitigation measures may include:
 - i. release of federally-approved biological controls, such as parasitoid wasps
 - ii. treatment of Black Ash trees that have high biological conservation or cultural value for Indigenous communities (see Action 3) with systemic insecticides that have been regulated and classified for use in Ontario, such as TreeAzin
 - iii. strategies to eliminate or reduce spread of EAB (e.g. restrictions on movement of ash trees, logs, wood products and firewood)
 - iv. planting of Black Ash with improved EAB resistance if the results of Action 7 below indicate this is feasible and appropriate

3. **(High – EAB susceptible areas)** Work collaboratively to develop and implement protocols for identifying Black Ash trees that may have higher EAB resistance as well as those that have cultural value for Indigenous communities and take appropriate action to preserve them. This action may include supporting the securement of habitat containing high-value Black Ash populations that exist on privately owned lands through existing land securement and stewardship programs as opportunities arise.

4. **(High – areas under current or imminent threat of EAB)** Work collaboratively to develop or update (as necessary) and implement new

DRAFT Government Response Statement
to the
Recovery Strategy for the Black Ash in Ontario

327 and existing best management practices (BMPs) to minimize threats to
328 Black Ash and its habitat and/or support its recovery. Actions should be
329 implemented as appropriate for local circumstances, adapted based on
330 feasibility and effectiveness, and may include implementing and
331 evaluating:

- 332 i. measures that improve the resilience of Black Ash and its habitat to
- 333 the threat of EAB and other stressors
- 334 ii. management techniques (e.g. silviculture) that improve tree and
- 335 ecosystem health, and increase seed germination and seedling
- 336 establishment
- 337 iii. techniques to control invasive species in areas where they currently
- 338 pose a direct threat or are likely to become a direct threat to Black
- 339 Ash or its habitat

340 5. Develop and communicate guidance for handling of EAB-infested wood
341 to reduce the risk of furthering the spread of EAB.

342 6. Where and when feasible and appropriate, collaboratively implement
343 techniques to restore Black Ash in areas where it was locally extirpated
344 or experienced significant declines as a result of EAB and other
345 contemporary threats. These efforts should be informed by the outcomes
346 of actions under the Research and Monitoring focus area below and be in
347 alignment with provincial policies for reforestation activities (e.g. [Ontario](#)
348 [Tree Seed Transfer Policy](#)).

349 Focus Area:	Research and Monitoring
350 Objective:	Further understanding of Black Ash including its distribution, 351 abundance, condition, and the best way to mitigate threats.

352 Investigating the traits and conditions that allow Black Ash to persist following an EAB
353 invasion may provide important information for ash conservation and recovery. More
354 generally, advancing understanding of Black Ash ecology and of the ecosystems of
355 which it is a component will inform the implementation of recovery actions now and in
356 the future. Monitoring Black Ash and its threats is important for understanding the
357 species' status and the effectiveness of recovery efforts. Recovery efforts for Black Ash
358 may be further improved by working with interested Indigenous communities and
359 Knowledge Holders to understand Indigenous Knowledge of the species and encourage
360 its integration into collaborative management actions.

361 **Actions:**

DRAFT Government Response Statement
to the
Recovery Strategy for the Black Ash in Ontario

- 362 7. **(High)** In collaboration with other jurisdictions, investigate factors that
363 may improve Black Ash resistance or resilience to EAB infestation and
364 the feasibility of implementing related actions as potential recovery tools.
365 This action may include research into:
- 366 i. whether genetics play a role in ‘lingering ash’ survival (i.e. whether
367 some Black Ash exhibit resistance to EAB that can be passed on to
368 offspring to increase their probability of survival)
 - 369 ii. whether improved EAB resistance can be developed through intra- or
370 inter-specific breeding or genetic modification
 - 371 iii. whether certain ecological conditions (including the presence of
372 native parasitoids and predators) may increase resilience to EAB
373 infestation
- 374 8. Conduct research on the biology and ecology of Black Ash including:
- 375 i. **(High)** studying reproductive and seed biology, including the
376 potential contribution of vegetative sprouts/shoots to species’
377 recovery, variables influencing productivity, seed dispersal distance,
378 seed dormancy and viability
 - 379 ii. **(High)** genetic variation and adaptive potential within the species’
380 range
 - 381 iii. effectiveness of methods to undertake preservation of Black Ash
382 genetic material other than seed and the feasibility of their use as
383 potential recovery tools
 - 384 iv. impacts of habitat fragmentation, patch size reduction and
385 eutrophication (process by which aquatic ecosystems become
386 enriched with nutrients over time)
 - 387 v. optimal site conditions at different stages of Black Ash development,
388 including hydrology and associated vegetation communities
 - 389 vi. potential effects of climate change on the spread of EAB (e.g.
390 through modelling)
- 391
- 392 9. Work collaboratively to develop and implement standardized survey and
393 monitoring programs that refine knowledge of current distribution and
394 abundance of Black Ash in Ontario, as well as threats impacting the
395 species through:
- 396 i. monitoring the species and emerging and existing threats
 - 397 ii. collection of community, local knowledge and collection of
398 Indigenous Knowledge where it is shared by Indigenous communities

DRAFT Government Response Statement
to the
Recovery Strategy for the Black Ash in Ontario

399 iii. increasing public awareness and encouraging the reporting of Black
400 Ash and EAB infestations

401 10. As appropriate, work collaboratively with Indigenous communities to
402 encourage and support the sharing and recording of Indigenous
403 Knowledge on Black Ash to increase knowledge of the species, support
404 recovery efforts and to preserve it for future generations.

405 **Focus Area: Awareness**
406 Objective: Increase local awareness of the species and ways to minimize
407 threats to Black Ash.

408 Municipalities, community members, land managers, landowners and Indigenous
409 communities all have a vital role to play in reducing threats to Black Ash and its habitat.
410 By increasing local awareness, individuals will become more knowledgeable about the
411 types of activities that may inadvertently impact the species and its conservation value.
412 Increasing public awareness will help reduce the movement of ash wood products and
413 firewood and minimize the threat of EAB. Additionally, Black Ash may be mistaken for
414 other ash trees, and increasing awareness will ensure consideration of the species
415 during regular vegetation and EAB management by land managers (e.g. utility
416 companies and municipalities).

417 **Actions:**
418 11. Promote awareness about Black Ash among municipalities, local
419 landowners, land managers and interested Indigenous communities and
420 organizations and promote community involvement by sharing
421 information on:
422 i. how to identify the species
423 ii. the species' habitat requirements
424 iii. protection afforded to the species and its habitat under the ESA
425 iv. actions that can be taken to identify and reduce threats to the
426 species, including EAB, and its habitat

427 **Implementing Actions**

428 Financial support for the implementation of actions may be available through the
429 Species at Risk Stewardship Program. Conservation partners are encouraged to
430 discuss project proposals related to the actions in this response statement with Ministry
431 of the Environment, Conservation and Parks staff. The Ontario government can also
432 provide guidance about the requirements of the ESA, whether an authorization or

DRAFT Government Response Statement
to the
Recovery Strategy for the Black Ash in Ontario

433 regulatory exemption may be required for the project and, if so, the authorization types
434 and/or conditional exemptions for which the activity may be eligible. Implementation of
435 the actions may be subject to changing priorities across the multitude of species at risk,
436 available resources and the capacity of partners to undertake recovery activities. Where
437 appropriate, the implementation of actions for multiple species will be co-ordinated
438 across government response statements.

439 **Performance Measures**

440 Progress towards achieving the government's goal for the recovery of Black Ash will be
441 measured against the following performance measures:

- 442 ○ By 2033, genetic material from at least 15 Black Ash trees in each Ontario
443 ecodistrict has been collected and preserved for future restoration efforts.
- 444 ○ By 2033, in areas not affected by EAB, population abundance and distribution
445 are maintained.
- 446 ○ By 2053, Black Ash continues to occur in each Ontario ecodistrict where it
447 currently occurs.
- 448 ○ By 2053, in areas not affected by EAB, population abundance and distribution
449 are maintained.

450 **Reviewing Progress**

451 The ESA requires the Ontario government to conduct a review of progress towards
452 protecting and recovering a species no later than the time specified in the species'
453 government response statement, which has been identified as 10 years. The review will
454 help identify if adjustments are needed to achieve the protection and recovery of Black
455 Ash.

456 **Acknowledgement**

457 We would like to thank all those who participated in the development of the Recovery
458 Strategy and Government Response Statement for the Black Ash (*Fraxinus nigra*) in
459 Ontario for their dedication to protecting and recovering species at risk.

460 **For Additional Information:**

DRAFT Government Response Statement
to the
Recovery Strategy for the Black Ash in Ontario

- 461 Visit the species at risk website at ontario.ca/speciesatrisk
- 462 Contact the Ministry of the Environment, Conservation and Parks
- 463 1-800-565-4923
- 464 TTY 1-855-515-2759
- 465 www.ontario.ca/environment