



**City of Fredericton
Emerald Ash Borer
Frequently Asked Questions (FAQs)**

Q. What is the Emerald Ash Borer?

- The Emerald Ash Borer is a small invasive, wood-boring beetle that feeds on the vascular tissue under the bark of the ash eventually causing the tree's death.
- The metallic green beetle, native to East Asia, was accidentally imported to North America within the wood of shipping crates. It was first discovered near Detroit in 2002.
- This pest is not a threat to human health, but is likely to cause significant damage to native and urban ash forests throughout the province.
- Unless treated, Emerald Ash Borer threatens to eradicate to our native ash trees regardless of size, age or vigor.
- Experience from other provinces and eastern states that have been dealing with this pest indicates that it is very important for communities to prepare for the pest before it arrives.

Q. Where is the Emerald Ash Borer, *Agrilus planipennis* from?

- A. The Emerald Ash Borer is native to East Asia. In North America, it has been found in 35 states and 5 Canadian provinces since it was first discovered near Detroit, Michigan, in 2002. It was recently located in Edmundston, New Brunswick, and Bedford, Nova Scotia in 2018.

Q. What does the Emerald Ash Borer look like?

- A. The beetle is metallic green in colour and is 8.5 to 14.0 millimetres long (about 1/2 inch) and 3.1 to 3.4 millimetres wide (1/8 inch). While the back of the insect is an iridescent, metallic green, the underside is a bright emerald green. The body is narrow and elongated, and the head is flat. The eyes are kidney shaped and usually black. Emerald Ash Borer larvae are white and flat, with distinctive 10 bell-shaped segments with pincer-like appendages on the last segment, and can grow up to 30 millimetres long (1 inch).

Q. Is the Emerald Ash Borer that dangerous?

- The Emerald Ash Borer is the most serious invasive insect threatening the ash species
- It tunnels through the conductive tissue and cuts off the flow of water and nutrients resulting in tree mortality after two to three years; heavily infested trees have been observed to die after only one year of beetle attack.
- Unless treated, Emerald Ash Borer is fatal to all true ash or Fraxinus species. The Mountain ash (*Sorbus* spp.) is not related to ash trees and the insect does not attack that tree.

Q. Why should we care about the ash tree?

- Ash trees make up approximately 12% or 2330 of 18,976 street tree population.
- All species of ash trees that grow in Fredericton are susceptible to injury and death by the Emerald Ash Borer. The Mountain ash (*Sorbus* spp.) is not related to ash trees and the insect does not attack that tree.
- Our forests, parks, river banks and trail system account for tens of thousands of ash trees.
- The wood of the white ash is also known for its unique qualities. It is pliant, strong, but light in weight. Many products are made from the wood of the white ash, including baseball bats, hockey sticks and furniture. White ash provides food for wildlife such as cardinals, finches and wood ducks. The wood of the black ash is not as strong, but has a grain look that is used for furniture. The wood of a young black ash can be split and used for basket making.
- Black Ash is an important species for the culture of the First Nations community.

Q. How do we find it?

- The beetle itself is very small and may not be easily seen.
- Most finds are made by noticing signs and symptoms of an infestation. Branch sampling is a highly effective tool for early detection of Emerald Ash Borer populations before outward signs or symptoms become apparent.
- Early detection provides additional time to identify and implement management options to slow the spread minimizing ash mortality.

Q. What if I think I found it?

- If you think you found the beetle or see signs or symptoms on an ash tree, please take a picture of it and report your findings to 460-2020 or parkstreets@fredericton.ca.
- You can compare the beetle you see with some other insects that are mistaken for it.



Q. How much ash do we have in Fredericton?

A. The City of Fredericton is responsible for the management of all trees on its property. Ash makes up approximately 12% or 2,331 of our street tree population and .5% of parks and open spaces. As well, our forests, parks, river banks and trail system account for tens of thousands of ash trees.

Here is a breakdown of the ash tree component:

- 2,434 ash trees identified and placed on the City database;
- 1,694 Green Ash; 740 White Ash;
- 2,331 are located in the street right-of-way; and,
- 103 are located in major parks and open space.

We are currently collecting inventory data to estimate ash tree numbers on other public property.

Q. What can we do to support our ash trees?

A. The public can contribute significantly in helping prevent the spread of this invasive beetle, and other wood-dwelling invasive pests:

- **Don't move firewood from its intended location.** The insect does not fly far on its own and infestations result from movement of infested ash trees and ash wood products. Purchase only certified, treated, and labeled firewood. Burn it where you buy it.
- Talk about Emerald Ash Borer with your family and friends to raise awareness.
- **Determine now if you have any ash trees:** Identifying features of ash trees include compound leaves with 5 to 9 leaflets; leaflets, buds and branches growing directly opposite from one another; and diamond-shaped bark ridges on mature trees.
- **If you have an ash tree, start planning:** Decide if the overall health of the tree merits current or future treatment or if it would be best to remove and replace it with a different species. If you aren't sure, contact an International Society of Arboriculture (ISA) certified arborist.
- **Recognize signs of EAB infestation:** Property owners with ash trees should be on the lookout for thinning of leaves in the upper tree canopy; 1/8-inch D-shaped exit holes on the bark; increased woodpecker activity; and bark splitting vertically, with winding S-shaped or serpentine galleries underneath. Report suspect trees by calling 460-2020.
- **Help prevent further spread of EAB:** Do not transport ash or any hardwood firewood, or any other untreated ash wood products, such as firewood, packing material/industrial wood material, live plant material (i.e.: nursery stock), and ash wood such as logs, branches, chips, and more.

Q. How do we protect our ash trees?

- Early detection is key. It provides additional time to identify and implement management options before unacceptable ash mortality.
- Ash that appear in good health, within 15 to 25 km of an infested area, can be treated before infestation.
- Trees not selected for treatment should be removed sooner rather than later.
- Once trees are infested, risk of failure increases and risk to public safety becomes primary concern.
- The City of Fredericton will be tasked with managing the Emerald Ash Borer infestation with minimal external assistance. City employees are working diligently to mitigate and manage potential effects through planned removals and replanting on streets, while optimizing tight fiscal resources. Private property owners are responsible for the costs associated with the management of ash trees on their property.

Q. How do I get more information about the Emerald Ash Borer?

A. You can find local resources at www.fredericton.ca/AshBorer and information at www.emeraldashborer.info, or Canadian Food Inspection Agency (CFIA) at www.canada.ca/en/food-inspection-agency.

Q. What are the implications of the discovery of Emerald Ash Borer in New Brunswick?

- Unless treated, Emerald Ash Borer is fatal to all true species of ash (*Fraxinus*) tree that grow in our province regardless of size, age, and vigor.
- Spread is likely to be patchy and slow across the province. Tree mortality typically occurs within 3 to 5 years of infestation. However, in heavy infestations tree mortality may occur within one year. Organisms that rely heavily on ash, such as insects and birds may also decline as ash is removed from the canopy.
- Industries and individuals that rely on ash will be affected. Infested areas and surrounding locations will be quarantined resulting in restrictions on movement of ash trees, logs, pulpwood, and other raw-wood products. The regulations also prohibit movement of untreated hardwood firewood to areas outside the quarantine.

Q. How does the Emerald Ash Borer destroy a tree?

- Emerald Ash Borer larvae feed on the tissues just below the bark. As they feed, larvae create serpentine tunnels, also called galleries, that disrupt the tree's ability to transport water and nutrients and eventually resulting in tree mortality.
- An adult Emerald Ash Borer typically emerges during June and July, leaving D-shaped exit holes in the bark. After emerging, the adults feed on ash foliage and can live for approximately three weeks.

Q. What are the symptoms of Emerald Ash Borer?

- canopy dieback, beginning in the top one-third of the canopy
- sprouting from the base of the tree and trunk
- bark splitting
- serpentine galleries below the bark
- D-shaped exit holes
- increased woodpecker activity

Q. What species of trees does Emerald Ash Borer attack?

- A. Emerald Ash Borer attacks and kills all species of North American ash, including white, green and black ash. Mountain Ash is not a true ash, so it is not threatened by Emerald Ash Borer.

Q. How does Emerald Ash Borer spread?

- A. Emerald Ash Borer is spread primarily by moving infested firewood, untreated ash wood products, and nursery stock. Moving untreated firewood and ash wood products from an

infested area is regulated. There may be quarantines and/or fines to prevent potentially infested ash trees, logs or hardwood firewood from moving out of Emerald Ash Borer infested areas.¹

The invasive beetle does not fly far on its own. You can contribute significantly in helping prevent it, and other wood-dwelling invasive pests from spreading, by:

- Collecting or purchasing only certified, local firewood at your destination. For more information, visit www.dontmovefirewood.org and www.stopthebeetle.info.
 - Infestations result from movement of infested ash trees and wood products like material/industrial wood material, live plant material (I.e.: nursery stock), and ash wood such as logs, branches, chips, and more.
- Talking about Emerald Ash Borer with your family and friends to raise awareness;
- Becoming familiar with the signs and symptoms of an EAB infestation; and,
- Inspecting your own trees.

Q. Can anything be done to prevent Emerald Ash Borer from killing ash trees?

- A. In areas where Emerald Ash Borer is present, treatments can be used to protect trees. However, treatments are costly and not feasible on a large scale. Researchers are continually working to develop new treatments for Emerald Ash Borer.

Q. What is a high-value ash tree? Is my ash tree significant?

- A. A high-value ash tree could be one that is historic, provides a lot of shade, and/or highly valued by the community and homeowners.

Q. Is there a treatment for Emerald Ash Borer?

- Tree care professionals have several treatments to protect high-value trees from Emerald Ash Borer. For more information about treatment methods, visit www.emeraldashborer.info.
- City employees are working diligently to mitigate and manage potential effects through detection, treatment, planned removals, and replanting on streets, while optimizing tight fiscal resources.
- Private property owners are responsible for the costs associated with the identification, treatment, and management of their property’s trees infected with Emerald Ash Borer.

Q. Should I treat my ash tree before it gets Emerald Ash Borer?

- No treatment is needed until Emerald Ash Borer has been found within an area adjacent to where are located.
- If your tree has symptoms like those of an Emerald Ash Borer infestation, such as canopy dieback, wood pecker damage, or borer exit holes, you may want to have a tree care professional examine the tree.

¹ <http://emeraldashborer.info>

- Contact a local International Society of Arboriculture (ISA) certified arborist, or visit www.isaatlantic.org.

Q. Should I remove my ash tree before it gets Emerald Ash Borer?

- If your ash tree is healthy, there is no reason to remove it. If it is dying or diseased, it may be best to contact an International Society of Arboriculture (ISA) certified arborist to inspect your tree
- With highly destructive invasive insects like the Emerald Ash Borer, it is best to err on the side of caution by seeking professional guidance if you suspect your tree is infested.

Q. Who should I call if I think my tree has Emerald Ash Borer?

- A. Contact the City of Fredericton 460-2020, or the Canadian Food Inspection Agency (CFIA) at 1-866-463-6017, or visit the CFIA website: www.canada.ca/en/food-inspection-agency.html.

Q. How far can Emerald Ash Borer adults fly?

- A. Laboratory studies have shown that Emerald Ash Borer adults are physically capable of flying several kilometres. However, it appears that most individuals do not fly very far (less than a kilometre) before infesting a new tree.

Q. What is the expected life span for black, green, and white ash trees as boulevard trees?

- A. Typical life span for urban boulevard trees ranges from 60 to 80 years. Although ash trees are known for their urban resilience, many variables, ranging from road construction to salt damage, determine the life span of these trees.

Q. Why is it more expensive to remove a dead ash than a live one?

- A. Removal of dead trees is typically more time consuming and, as a result, more costly.

Q. How do private (residential) homeowners dispose of ash trees?

- Residents and/or contractors are responsible for the proper disposal of any ash material coming from private property, and at approved disposal sites.
- The City of Fredericton will be tasked with managing the Emerald Ash Borer infestation, so the financial burden is placed on local taxpayers. City employees are working diligently to mitigate and manage potential effects through planned removals and replanting on streets, while optimizing tight fiscal resources.
- At this time, private property owners are responsible for the costs associated with the identification, treatment, and management of their property's trees infected with Emerald Ash Borer.

Q. Who is responsible for infected trees?

Trees within the right-of-way

- The City will remove infested ash trees located within the right-of-way from your property if it is located within the road allowance. If the tree in front of your house is showing signs of Emerald Ash Borer infestation, contact the City of Fredericton at 460-2020 to have the tree assessed.

Trees on private property

- You are responsible for all trees located on your private property, including treatment, removal, and disposal. Contact an International Society of Arboriculture (ISA) certified arborist to discuss your options.
- If you decide to have your tree removed, ensure that the material is not moved outside the Canadian Food Inspection Agency (CFIA) quarantined zone (if a quarantine is in effect), and is disposed of at approved site. The wood can be utilized for firewood and landscape use within the quarantine zone
- Contact the Canadian Food Inspection Agency at 1-866-463-6017 to prevent the introduction and spread of Emerald Ash Borer.

Q. Does the City of Fredericton help cover the cost of tree removal on private property?

- No. The City of Fredericton will be tasked with managing the Emerald Ash Borer infestation with minimal external assistance, so property owners are responsible for their own trees.
- City employees are working diligently to mitigate and manage potential effects of Emerald Ash Borer through a fiscally sustainable plan that includes detection, planned removals, treatment, and replanting.
- Private property owners are responsible for the costs associated with the management of their property's trees, including treatment, removal, and disposal.
- Early detection is critical. If you suspect you have Emerald Ash Borer, contact the City at 460-2020, or the Canadian Food Inspection Agency at 1-866-463-6017.

Q. How does the city determine which trees to remove, and which are high-value?

A. Determining which trees in our community are high-value depends on a combination of factors, such as significance, location, size, and contribution.