

EAB Municipal Management Case Study

Montpelier, Vermont

SUMMARY

The initial detection of emerald ash borer (EAB) in Vermont in 2018 prompted municipalities across the state to gather their resources and take the next steps to reduce future impacts of the introduced tree pests on urban and community forests. Montpelier has a strong history of tree management and stewardship, and has been a designated Tree City USA since 2001. The City supports a full-time City Arborist and three other full-time staff in the Parks & Trees Department. Montpelier is also home to a committed Tree Board that has been supported by city leadership.

In 2013, before the detection of EAB in Vermont, members of the Montpelier Tree Board drafted an EAB plan preparing the City for the arrival of EAB. The plan prompted the City to put aside funds for EAB, totaling about \$20,000 prior to 2018, and organized a survey of ash trees on both public and private property. The survey team noted approximately 2,700 ash trees; within that total, 743 ash trees were located along the 52 miles of City-maintained roads. Based on this survey, the Tree Board and City Parks and Trees staff created a proactive approach to tree removal, aiming to remove 10% of ash trees each year for 10 years, removing trees based on risk level. They also planned for chemical injection treatments using emamectin benzoate to preserve high-value ash trees within the urban canopy of Montpelier.

The majority of the remainder of removals and injection treatments are completed by the

City Parks and Trees staff, although a portion of removals needing specialized equipment are contracted out to local companies. These contracts, as well as costs associated with the injection treatments, are funded by the City budget of approximately \$5,000 for annual tree removal and \$3,000 for tools and supplies. In addition to the costs of EAB, this budget funds general tree maintenance of Montpelier's 1,300 City trees, including pruning, mulching, removals, and new plantings. This maintenance is completed by the City staff. Montpelier has also received over \$33,000 in grant funding since 2018 related to ash tree removal, purchasing and planting of new trees, processing of downed wood, and building municipal capacity for tree work and education. The City also purchased a portable saw mill with grant funding in order to turn ash trees and other street trees into an added value product.

The city forestry staff have removed 77 ash trees since 2018 and have since replanted all removal sites with a variety of hardwood species. Currently, replacement trees are sourced from local tree nurseries, but in the future, the City hopes to transition to sourcing from their own tree nursery that is in development. In 2020, the City arborist began systemic insecticide treatments, splitting the high-value ash trees into three cohorts that are each treated once every three years. There are about 60 total trees being treated and injections are performed in the spring and summer months.

FAST FACTS

Population: 8,023 (2022)

Miles of City Maintained Roads: 52

Number of Ash Inventoried on Town Roads prior to Removals: Approximately 750.

Normal Management of Public Trees: City tree maintenance is completed by the City arborist and Parks and Trees staff. They regularly assess City tree health, administering maintenance on a case by case basis, ranging from pruning to removal planting.

Local Tree Ordinance: [Chapter 13 – Article III, Trees](#) (First adopted: 1972)

Ash Inventory Conducted: A volunteer survey of both public and private property was conducted in 2013.

EAB First Detected: 2018

Written EAB Management Plan: A written EAB plan was prepared by the Tree Board in 2013, focusing on the preparing Montpelier for the arrival of EAB. In 2018, the Tree Board, in collaboration with City staff, prepared a detailed plan addressing ash management due to EAB. [View plan.](#)

Ash Management Status in 2024:

In 2018, City Parks and Trees arborist staff began removing hazard ash trees. As of 2024, they have removed 77 ash trees, in addition to the 200 ash removed by GMP. These removal sites are replanted with a variety of hardwood species.

Chemical injection treatments began in 2020, and

now in 2024, there are three cohorts of 20 ash trees that are treated once every three years. The initial trees are now on their second round of treatments.

Key Players: The planning phase of Montpelier’s EAB response was led by John Snell and John Akielaszek, among other members of the Tree Board. They spearheaded the EAB action plan, and were supported by Parks Department staff and the City Council. Alec Ellsworth, the Parks Director and Tree Warden, has supported these efforts along with Joseph Ferris, the City Arborist. They have put into action the EAB plan, removing and treating ash throughout the City. Vermont’s Urban & Community Forestry (UCF) Program has also advised the City throughout the EAB process, and many volunteers have supported this effort.

Funding: The main EAB response funding source has been the City’s tree maintenance budget, of about \$120,000. Additional funding has been secured through grants from UCF and other sources, totaling just over \$33,000.

Wood Utilization: All wood from removed ash trees has been either used for firewood, chipped for wood mulch, or processed in the City’s portable mill for lumber. Both of these processes are in contained locations as a means to slow the spread of EAB throughout Montpelier.

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ON THE GROUND

“Find somebody who will make a detailed plan, and make a joint pitch to the select board... that process of planning and advocacy is irreplicable.”

Alec Ellsworth, Parks Director and Tree Warden, on how community involvement is vital to an EAB response, and is what began Montpelier’s response all together.

PROJECT COSTS

Activity	Project
Removal	Beginning in 2018, Montpelier removed 77 public ash trees from city roads and other property. Further removals are planned through 2028. Work is completed by the City arborist staff.
Treatment	Beginning in 2020, Montpelier treated 60 ash trees with emamectin benzoate. Trees are split into three cohorts and are treated once every three years. Completed by City arborist staff.
Replanting	Following removal, sites are replanted by the City arborist and staff. Trees are purchased from local nurseries for \$30-40 per tree, totaling \$2,700 for plantings as of 2024.



Photo credit: Lila Turner

Mature green ash along Main Street are currently treated with systemic insecticide to protect them against emerald ash borer.



Photo credit: Lila Turner

A swamp white oak tree grows to provide future shade along Main Street.

LESSONS LEARNED

- **Lean on Your Resources:** The Tree Board members and City Staff credit UCF for the training and expertise they provided for the City Arborist position as well as the overall EAB response. Whether through UCF or another source, it is valuable to lean on the knowledge of those who have experience in responding to EAB.
- **Support Community Involvement:** Community is what keeps an EAB response moving forward year after year. Finding just one or two community members who are committed to the response and can dedicate time toward plan writing or in the field action can be the spark needed to effectively handle EAB.

Vermont Urban & Community Forestry Program

Vermont Department of Forests, Parks and Recreation in partnership with University of Vermont Extension



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