

VERMONT URBAN AND COMMUNITY FORESTRY PROGRAM

EAB Municipal Management Case Study

Essex, Vermont

APPROACH

Phased removal and replacement

August 2023

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 invasive insect on urban and community forests. In 2020, the Town of Essex and the Village of Essex Junction (which became two separate municipalities in 2021) were jointly awarded a \$15,000 grant by the Vermont Urban and Community Forestry Program to assist with future costs of ash management by means of ash removal and planting of new urban trees of broad species diversity.

Prior to the grant application, both the Town and the Village adopted street tree management plans drafted by their tree boards and approved by their legislative bodies based on urban tree surveys completed in partnership with the 2013 University of Vermont LANDS crew and the 2014 Vermont Urban and Community Forestry Program summer intern. The surveys identified 166 ash trees within urban and suburban municipal rights-of-way in the Village and 212 ash trees in the Town outside the Village; however, limited volunteer capacity prevented the Town from surveying its approximately 60-70 miles of rural roads during a further ash inventory in 2016.

Due to the threat of EAB and the prevalence of ash trees within the urban and suburban municipal rights-of-way, both municipalities also adopted emerald ash borer (EAB) management plans. Specifically, both plans recommend removal and replacement of most or all ash trees within the public right-of-way at a rate of 10-20 trees per year, except any ash trees of high value to community spaces that were identified for long-term insecticide treatment.

Since adoption of these plans, the Essex Junction Tree Advisory Committee and the Town of Essex Conservation and Trails Committee have facilitated the planting of dozens of new trees on public and private property. This process involves sourcing replacement nursery stock, coordinating contracted planting labor, and providing municipal staff time and resources to water new plantings over the first three growing seasons.

FAST FACTS

Population (2020):

- Town of Essex: 22,094
- City of Essex Junction: 10,590

Note: At the time of the grant application to UCF (2021), Essex Junction was known as “the Village” and Essex Town was known as “the Town outside the Village”. As of July 1st, 2022, Essex Junction became Vermont’s newest city distinct from the Town of Essex.

Miles of Town Maintained Roads:

- Town of Essex: 100 miles
- City of Essex Junction: 36 miles

Number of Ash Inventoried on Town Roads prior to Removals:

- Town of Essex: 212 ash trees in the town outside the village; partial inventory of some 70 miles of road in the Town
- City of Essex Junction: 175 ash trees

Normal Management of Public Trees: The tree warden and town highway (road) crew address risk trees on a case-by-case basis. The City of Essex Junction contracts Sunset Tree Care and other private tree care companies for tree pruning; the Town of Essex contracts with a variety of arborists.

Active Tree Board or Conservation Commission:

- Town of Essex: Nine-member Conservation and Trails Committee, one town planner, one town tree warden not on the CTC.
- City of Essex Junction: Five-member tree advisory committee, including the tree warden.

Local Tree Ordinance:

- Town of Essex: Adopted a Tree Care Policy on April 18, 2022.
- City of Essex Junction: Adopted a Tree Policy on Nov. 12, 2013

Ash Inventory Conducted: In 2016, the Town of Essex (including the Village of Essex Junction) received a technical assistance package from the Vermont Urban & Community Forestry Program that included a street tree inventory.

EAB First Detected: Not detected as of summer 2023. Detections in neighboring municipalities put both Essex and Essex Junction inside the EAB Infested Area.

Written EAB Management Plan:

- Town of Essex: Adopted June 18, 2018, as part of a Street Tree Management Plan.
- City of Essex Junction: Adopted January 8, 2019 (previously Village of Essex Junction).

Ash Management Status in 2020: Between 2020 and 2023, the City of Essex Junction removed 28 ash trees and planted 46 trees of other species as replacements in municipal rights-of-way. Due to the relatively small size of the right-of-way ash trees removed, the City has not yet required the skills or equipment of a certified arborist or tree care company. Ash tree removals are completed from the ground or with a small lift by the Essex Junction Public Works staff. Major pruning of other trees in the City is put out for bid and has historically been completed by Barrett’s Tree Service, Inc. or D.J.’s Tree Service.

Within the 2020-2021 grant cycle alone, the Town of Essex removed 30 ash trees and replaced them with 30 non-ash tree species in municipal rights-of-way. Removals were completed by Barrett’s Tree Service, Inc.

Key Players: Members of Essex Junction Tree Advisory Committee including the tree warden; Essex Junction Public Works; members of the Essex Conservation and Trails Committee; Essex Town Planner; Essex Tree Warden

Funding: \$15,000 grant awarded in 2021 from the Vermont Urban & Community Forestry Program for the project. The combined Town of Essex and City of Essex Junction matched this grant with \$15,003. 43 of in-kind donations and purchases.

Wood Utilization: Ash trees removed in urban and suburban ROWs were chipped on site. On some rural roads in the Town of Essex, the wood was offered to landowners or provided to the Wood for Good Firewood Bank program based in Jericho, VT.

CONTACTS

- **Nick Meyer:** Essex Junction Tree Advisory Committee Chair, (802) 233-9493, nmeyer52@aol.com
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- **Darren Schibler:** Former Town Planner, Town of Essex, DSchibler@ccrpcvt.org



Canopy trees of Patmore green ash line this Essex Junction residential street. Newly planted trees of at least eight different species are interplanted in the right-of-way.

Activity	Pilot Project	Pilot Work Personnel
Treatment	In 2022, the Town of Essex treated 12 ash trees with emamectin benzoate.	Ash Tree Solutions, Inc.
Removal	With 2021 grant funding: 23 rural road ash trees removals, 15 urban ash tree removals. The total cost was \$8,815.25 including stump grinding where needed. In the town outside of the village, the cost of removals per tree ranged from \$164.00 to \$209.13 . In the village, removals were completed through in-kind service of the Dept. of Public Works	Barrett's Tree Service Inc., Essex Junction Department of Public Works
Replanting	30 trees total to replace 15 urban and 23 rural ash trees. Purchase of 29 commercial nursery stock for replanting totaled \$5,714 . Contracted labor to replant 26 trees totaled \$5,290. Total cost per tree averaged \$379.	Trees were sourced from New England Nursery Sales. Planting was completed by Adam Becker Tree Care. Watering in the Town of Essex completed once per week by Heartwood Landscape and Tree Services, LLC.

ON THE GROUND

"If you wait for all of the trees to die at once, then you have holes in the canopy. I feel like we're going to get caught by EAB before we're finished with our removal and replacement plans. I just don't know how bad it will be."

Alan Botula, former chair of the Essex Town Trails and Conservation Committee

"When EAB arrives, it's going to be a shame. The canopy of many of the green ash in the city is just coming in."

Warren Spinner, Essex Junction Tree Warden

LESSONS LEARNED

- **Form an organized volunteer effort.** The Town of Essex launched an "Adopt-a-Tree" program to help newly planted trees thrive in their first three years after planting through regular watering during the growing season. This volunteer effort is crucial to ensuring tree survivorship.
- **Design streets to include trees.** There are so many competing interests along roadways and in rights-of-way. Design ways to encompass streets, above and below-ground utilities, and green space that plans for room for mature trees.
- **Ensure you have administrative assistance when running grant-funded programs.** Paperwork for a grant can be time consuming if volunteers are doing it.
- **Use the strengths of the people on your committee.** Some people are great at outreach, some know everyone in town, some are experienced in tree species selection and care. Celebrate these strengths and use them to their full potential.
- **Continue outreach and education.** Community members, municipal staff, landscaping crews, and volunteers all need to be refreshed and updated regarding best tree care practices.

ABOUT THE PROJECT

The Emerald Ash Borer Municipal Management Case Studies were developed to help municipalities determine the best approach to ash management for their unique situation. The case studies were drawn from municipalities in the Midwest, New England, and Vermont that vary in population, percentage of public trees that are ash, and resources.

Vermont Urban & Community Forestry Program

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

