

Enosburgh Town Emerald Ash Borer Preparedness Plan



Prepared May 2014 by:
The Enosburgh
Conservation Commission
Maps Produced by
Northwoods Forestry

Table of Contents

	PAGE
Executive summary	1
I. Introduction	2
II. Emerald Ash Borer	3
III. Tree Inventory	9
IV. Stakeholders and Resource list	11
V. Tree Management and Removal plan	12
VI. Community Education & Outreach Strategy	14
VII. Disposal and Utilization	16

Appendix

Map Index

Maps A-W

Executive Summary

The Emerald Ash Borer is an invasive insect that has killed millions of trees through the United State and Canada. As of 2014 , the insect has been found in isolated pockets surrounding Vermont in Massachusetts, New York, New Hampshire, and Quebec. As of 2/3/2014 no detection has been made in Vermont, but it is probably inevitable that it will eventually be found in our communities. The insect causes almost 100% mortality of all native ash species within approximately 10 years. It also often goes undetected for several years until mortality starts to be widespread and therefore more noticeable.

Ash of all three Vermont species , White ash; Fraxinus americana, Green ash; Fraxinus pensylvanica, and Black ash; Fraxinus nigra are all commonly found growing along the public road Right of Ways, and often planted to public spaces.

Within a few years of being established, the insect will be the cause of widespread mortality. The large number of dead and dying ash along the roadside could cause a significant financial burden to the town of Enosburgh to remove hazardous trees, and would cause a public safety hazard.

This Emerald Ash Borer preparedness plan, which has been developed with the assistance of the Enosburgh Conservation Commission, Enosburgh Town Public Works, The University of Vermont and the Department of Forest, Parks and Recreation, is designed to provide a plan to address the public safety concerns and minimize the impact to the town budget by inventorying the ash on the most traveled roads in Enosburgh, and to provide a plan to preemptively remove the ash along the roadside over a period of ten years. This ten year time frame will enable the town to remove trees systematically within an approved budget. The ten year plan will also minimize the overall impact to the roadside tree canopy and alleviate public concerns of removing currently healthy trees. The plan can also be changed if research provides a means to effectively control the Emerald as Borer.

The roadside removal of ash trees has two goals : to remove a public safety hazard and to minimize the financial burden to small communities. This strategy is very different than what is recommended for interior forest ash trees. The department of Forests, Parks and Recreation discourages preemptive salvage of ash in the forest, and will not approve any Use value Appraisal plan that recommends such treatment. Where safety is not the prime concern the department feels the value of ash remaining in the forest is greater than the value of the wood product that may be lost. Lowering the percentage of ash or harvesting the largest diameter ash in a woodlot may be allowed if done in conjunction with other silvicultural activities. But allowing the ash to respond in the natural environment can only happen if ash remains a component of the landscape.

The very best way to prevent the Emerald As Borer from entering our community is to not move firewood. The larval stage of the insect is the damaging agent , and this stage remains under the bark of ash for most of the year. If firewood is moved from an infected area the larvae will emerge as an adult from the firewood in the spring , mate, lay eggs in living trees and start the destruction, s DON'T MOVE FIREWOOD.

I. Introduction

Purpose of Plan

By implementing the provisions in this management plan, the Town Of Enosburgh is attempting to mitigate the disruption to the Town Road Budget for removal of hazard roadside trees caused by a pending infestation of the Emerald Ash Borer (EAB). Taking a proactive approach to this infestation enables the Town to address public needs in an efficient and effective manner. It will also allow the Town to use best management practices, the most recent scientific findings, and the Town's roadside tree inventory data to minimize costs and distribute them over a manageable time period, as well as lessen the social and economic impact that such an infestation will have on the quality of life in our community.

In particular, the plan will outline the Town of Enosburgh objectives and the approaches that will be used to meet the current or anticipated impact of Emerald Ash Borer (EAB) on our roadside trees. It will serve as a blueprint that the town road crew and residents can follow with a high degree of confidence, rationality, and order. The plan will also provide for public education and communication opportunities.

The plan is based on the most recent scientific studies and recommendations from key partners and multiple state and federal agencies. As this is a living document, updates to this plan will be made as new information and recommendations are released.

Applicability

This plan applies throughout the Town of Enosburgh on roads establishes as priority areas by the town Road crew. Education efforts will be targeted toward private properties where a tree may pose a safety hazard to adjacent public right-of-ways, other public properties, and adjacent property owners.

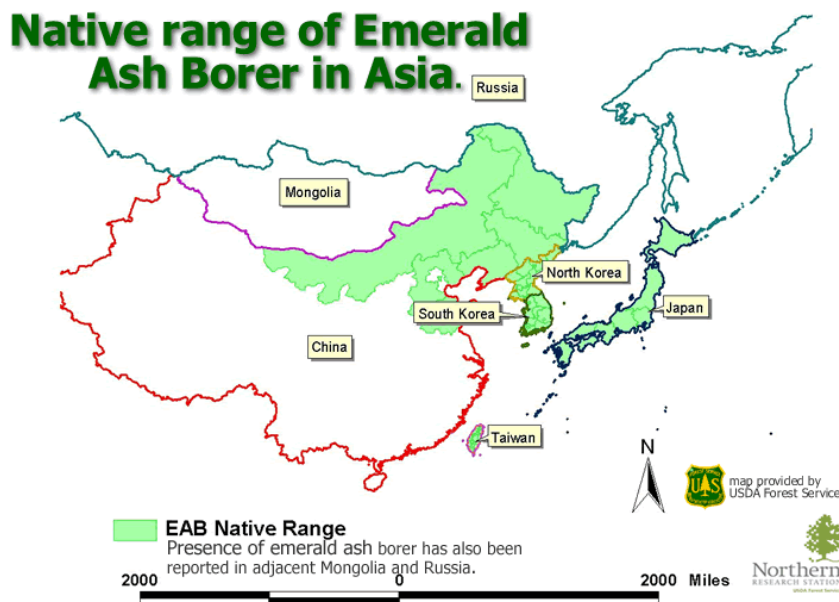
Administration

The Town road Foreman through the direction of the Town Selectboard and with educational and inventory assistance from the Town Conservation Commission will be responsible for implementing this program and seeing that program provisions are carried out.

II. Emerald Ash Borer (EAB)

History

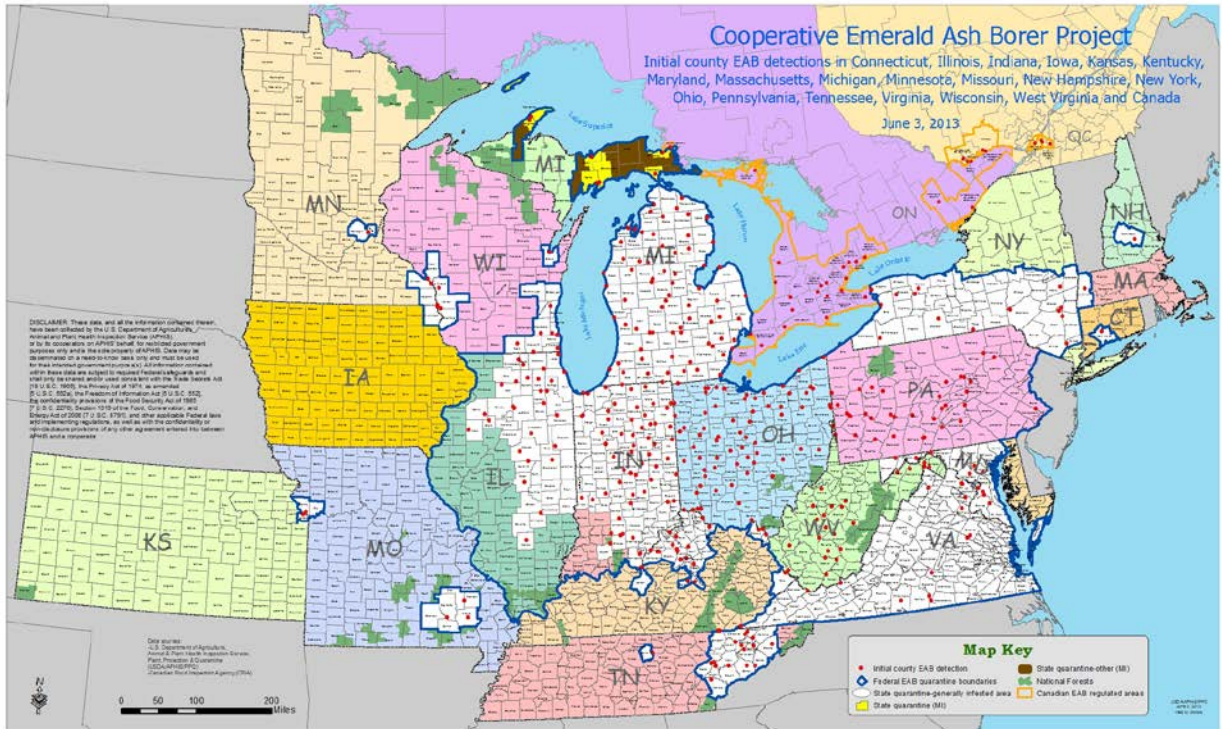
Emerald Ash Borer (*Agrilus planipennis*) is a non-native woodboring insect that feeds on North American ash trees. EAB is native to Asia, in particular northeast China, Korea, Japan, Taiwan, and a small area in adjacent Russia and Mongolia. EAB is thought to have been introduced to southeastern Michigan through solid wood packing material, such as crates and pallets, originating from Asia. The insect was found in 2002, but is believed to have arrived in the early 1990's. Experts suspect that the insect was present for 12 years before it was identified. In its native range, EAB feeds on a variety of plant species and is only considered a minor pest. This is partly due to the fact that Asian ash trees have been able to develop co-evolutionary resistant to EAB attacks and populations are also kept in check by predators and pathogens. However, this is not the case in North America where ash trees have no natural resistance and EAB has few predators. In North America, woodpeckers and a native wasp have been shown to attack EAB eggs and larvae, but with little impact on populations. In addition, research is being conducted with three species of wasps from China that show some promise of control (refer to Section V – Preparation, Detection, and Control for more information).



EAB Native Range
Source: USDA Forest
Emerald Ash Borer
Source: Wisconsin

In North America, EAB attacks all ash trees in the genus *Fraxinus*, including green ash (*F. pennsylvanica*), white ash (*F. americana*), black ash (*F. nigra*), and other native species in the same genus. Mountain ash (*Sorbus* spp.), not a true ash, is unaffected. EAB is known to attack both healthy and declining ash trees and can infest branches as small as one inch in diameter. Left on its own, EAB can travel ½ mile to several miles per year during its flight period. However, due to human activities EAB has spread over much greater distances than it could have moved naturally. The number one human activity that has led to the spread of EAB is the movement of firewood. In addition, the movement of nursery stock has also played a role in its

movement. EAB has had a devastating effect on North American forests and has been compared to the effects of chestnut blight and Dutch elm disease. To date, EAB has killed millions of ash trees and has been found in 19 states, and Ontario, Canada. If it is not contained or its effects mitigated, it will continue to infest and kill all species of ash tree in the genus *Fraxinus*.



Distribution map of Emerald ash borer as of October 2013

In addition, if left unchecked, EAB could result in the losses of millions of dollars to the lumber and nursery industries as well as urban communities. Preliminary findings by the USDA Forest Service estimate that EAB's potential impact to the national urban landscape is a potential loss of between 0.5 to 2 percent of the total leaf area (30-90 million trees) and a value loss of between \$20-60 billion. In addition, if EAB is not contained or eradicated it could cause approximately \$7 billion in additional costs to state and local governments and landowners to remove and replace dead and dying ash trees in urban and suburban areas over the next 25 years. (New Pest Response Guidelines, Emerald Ash Borer *Agrilus planipennis* (Fairmaire), USDA-APHIS 2008.)

Identification and Lifecycle (Source, <http://www.emeraldashborer.wi.gov/index.jsp>.)

Emerald ash borer adults are very small, metallic green beetles. They are only 3/8 -1/2 inch long and 1/16 inch wide (about the size of a cooked grain of rice). Adult emerald ash borers emerge from beneath the bark of ash trees in late May through mid-July, creating a D-shaped exit hole as they chew their way out of the tree. Adult beetles are most active during the day and prefer warm, sunny weather. They never wander far from where they exit a tree (less than one mile) in search of a mate.



Emerald Ash Borer
Source: Wisconsin Emerald Ash Borer Information Source

Once they find a mate, the female will lay 60 – 90 eggs, one at a time, in the crevices of ash tree bark. The adult beetles will feed lightly on ash tree leaves, but do not cause much harm by doing so. The adult beetles live a total of three to six weeks. Emerald ash borer eggs are very small (1 mm), difficult to find and are rarely seen. Female adult beetles deposit them in the bark crevices and as larvae hatch from the egg, they immediately chew their way into the tree. Emerald ash borer larvae are white and slightly flattened, with a pair of brown pincher-like appendages on the last abdominal segment. Their size varies as they feed under the bark on the ash tree's tissues and grow. Full grown larvae average 1½ inches in length. They wind back and forth as they feed, creating characteristic S-shaped patterns called galleries under the bark (starting in the phloem and extending into the xylem layers). Larvae will feed under the bark for one year and often two years in healthier trees, and can survive in green wood, such as firewood, even if the tree is no longer standing.



Emerald Ash Borer Larvae
Source: Michigan State University

In autumn, after feeding under the bark, larvae will create a chamber for themselves in the tree's sapwood. They stay in this chamber over winter and pupate in the spring, turning into adult beetles. The adults emerge from the pupal chamber and then emerge from the tree through D-shaped exit holes, completing the life cycle. The pupae, like the larvae, cannot be seen unless the bark is pulled away from the tree.



Emerald Ash Borer Galleries
Source: University of Wisconsin,
Department of Entomology

There are numerous metallic green insects common to the northeast that could easily be confused with EAB. In addition, there are several native pests other than EAB that attacks ash trees.

Ash Tree Identification and Symptoms

Since EAB attacks only ash trees, monitoring for its presence means knowing how to identify ash. Ash trees are most easily identified by their compound leaves (leaves are composed of 5-11 leaflets) and opposite branching pattern where branches, buds, and leaves grow directly across from each other not staggered. The only other oppositely branched tree with compound leaves is boxelder (*Acer negundo*), which almost always has three to five leaflets. The bark on mature ash trees is tight with a distinct pattern of diamond-shaped ridges. On young trees, bark is relatively smooth.



Opposite branching and buds.
Source: WDNR EAB Field Guide



Green ash compound leaf
Source: WDNR EAB Field Guide



Example of diamond pattern bark typical of green and white ash.
Source: WDNR, Brian Schwingle

It is important to remember that since EAB is a wood-boring insect and spends most of its life under the bark of the tree, it is difficult to detect in ash trees. It is also difficult to detect because the decline of infested ash trees is usually gradual. Looking for visible signs and symptoms is one method for detecting EAB. Symptoms of an infestation might include dead branches near the top of a tree or wild, leafy shoots growing out from its lower trunk. However, D-shaped exit holes and bark splits exposing S-shaped tunnels are significant signs of EAB. One sign that a tree has become infested by EAB is bark with a mottled appearance and/or jagged holes, both caused by woodpeckers looking for prepupal larvae. Another sign are the D-shaped exit holes present on the branches and the trunk left by emerging adults. For D-shaped holes to be present a tree has to be infested for at least one year. Since EAB prefers warm sunny areas of the tree the infestation usually begins in the tops of ash trees making it difficult to find D-shaped holes in the early stages of infestation.



Woodpecker damage to EAB infested trees.
Source: USDA-Forest Service



EAB adult emerging through D-shaped Exit hole. Source: WDNR EAB Field Guide

In addition, if a tree has EAB the bark may split vertically above larval feeding galleries. When the bark is removed from infested trees, the distinct, frass-filled larval tunnels that etch the outer sapwood and phloem are readily visible on the trunk and branches. An elliptical area of discolored sapwood, usually a result of secondary infection by fungal pathogens, sometimes surrounds larval feeding galleries. The S-shaped tunnels excavated by feeding larvae interrupt the transport of nutrients and water within the tree during the summer, causing foliage to wilt and the tree's canopy becomes increasingly thin and sparse as branches die. Many trees appear to lose about 30% to 50% of the canopy after 2 years of infestation and trees often die after 3-4 years of infestation. Often at the margin of live and dead tissue, epicormic shoots may arise on the trunk of the tree. Dense root sprouting sometimes occurs after trees die.



Epicormic branching and dying branches possibly associated with infested ash tree.

Source: WDNR, EAB Field Guide

III. Tree Inventory

The first and most important step in managing a community's urban forest resource and preparing for EAB is to conduct a tree inventory. A tree inventory is the process of counting, characterizing, and recording information about the public and sometimes private trees that make up the urban forest or the stand of trees in woodlots. It is a useful tool that documents important information related to the total number of trees. The most common type of data collected in tree inventories are: location, land use, species, size, condition, site information, and maintenance needs. The goal of any community tree inventory is to provide information essential for management in a timely fashion, at a reasonable cost.

Street tree inventories document and help with management of trees along roads and within the public right-of-ways. Park inventories document the publicly owned trees away from streets and right-of-ways. These trees comprise a smaller part of the entire community tree population, but may be the most important part of the urban forest to many residents. They make up the more natural areas of communities and are usually a place of refuge or recreation for residents.

Documentation of street and park trees is useful for identifying trees a Town is responsible for maintaining. This information can then be used to identify areas of susceptibility (i.e. high ash component), low species diversity (species and/or age), and future planting opportunities. The information can also be used to document a risk assessment program where trees prone to failure are identified and can be preemptively dealt with. Additionally, in the case of an accident, being able to produce a risk assessment and work history log indicates the community's active role in maintaining safe trees. Finally, all these items from an inventory can be used to develop a community forest management plan that provides direction for urban forestry initiatives.

The town of **Enosburgh** conducted a roadside tree inventory on November 14th. The inventory covered approximately 18 miles of roads identified by the Town Road Commissioner, Joe Clark. Two volunteers traveled the roads marking the ash trees with a Garmin GPS. The roads were inventoried one side at a time; North or East first and then turned to travel South or West. The only data taken was the location of the trees to determine concentration of trees on any a particular road. The GPS co-ordinates were downloaded and mapped on a town road later with an orthophoto layer to shown reference and context, as well as a surface water and wetland layer for additional context. Trees were inventoried within the town ROW (26 feet from center line) at a diameter of 6 inches and greater.

GPS location of each ash tree, provided in a shape file using NAD 83 VT State Plane projection.

Maps developed include a Map Index key and several maps showing individual trees which are numbered 1-639.

Inventory results

List of roads by Priority given by road commissioner

Road	Approximate mileage	# ash trees
Boston Post Road	3.5	50
Tyler Branch Road	3.5	42
Longley Bridge Road	3.0	273
Perley Road	2.5	176
Chester Arthur Road	1.5	32
Stonehouse Road	1.5	25
Davis Road	1.5	11
Duffy Hill Road	1.0	30
Total	18 miles	639

No diameter or condition data were taken but observation noted by the inventory team indicates that most of the trees are in the 6-12 inch diameter class. A few larger trees are found on each road but the greatest concentration of large trees was found on the Longley Bridge Road.

IV. Key Stakeholders and Resource List

Representing Role/Responsibility	Name	Contact
Mayor/Town Manager/ Selectboard Chair	Larry Gervais	Phone: Email:
Public Information Officer		Phone: Email:
Volunteer Forest Pest First Detector(s)	Nancy Patch	Phone: 524-6501 Email: nancy.patch@state.vt.us
Tree warden/City arborist	Joe Clark	Phone: Email:
Tree Board Member(s)		Phone: Email:
Municipal Utility Representative		Phone: Email:
Solid Waste District Delegate		Phone: Email:
Conservation Commission Member	Nancy Patch, Lew Rose	Phone: 524-6501 Email: nancy.patch@state.vt.us
Planning Commission Member	Michael Gervais	Phone: Email:
Director of Parks/Recreation Committee Member		Phone: Email:
Local Emergency Management Coordinator		Phone: Email:
Director of Public Works/ Road Foreman or Commissioner	Joe Clark	Phone: Email:
Local tree/forest professionals		Phone: Email:
Certified pesticide applicators in category 3A. Go to http://www.vtinvasives.org/pesticide-treatment for an updated list		Phone: Email:
Certified arborists/tree removal contractors. Go to: http://www.isa-arbor.com/		Phone: Email:
Volunteer partners:		Phone:
Conservation commission		Email:
Vermont Coverts Cooperators. Contact Lisa Sausville at 388-3880 or lisa@vtcoverts.org		Phone: Email:
Conservation Commission		Phone: Email:
Master Gardeners. Contact Lisa Chouinard at master.gardener@uvm.edu or (802) 656-9562		Phone: Email:
SOUL Tree Stewards. Contact Kate Forrer at Katherine.Forrer@uvm.edu or (802) 223-2389		Phone: Email:
Other:		

Roadside Pest Planning Team

Name	Responsibility	Contact
Nancy Patch	Team Leader	Phone: 524-6501 Email: nancy.patch@state.vt.us
	Public Information Officer	Phone: Email:
Joe Clark		Phone: Email:
		Phone: Email:
		Phone: Email:
		Phone: Email:

V. Tree Management Considerations

Monitoring and Detection

One of the first line of defenses against EAB is to monitor for the pest. It has been estimated in many instances where EAB was found, that EAB was usually present in the community for a number of years before it was detected. If a new EAB infestation can be detected while it is still limited in scale, it may be more controllable. In addition, identifying infestations early will give Cities more time to implement management strategies before ash trees in the community are in a late stage of decline and become hazardous, ultimately saving them money. To date, the State of Vermont is and has been conducting survey and detection efforts across the state in hopes to detect EAB early. Probably the most well know effort is the use of the purple traps, which was used for the first time in 2007. The traps are made of a purple corrugated plastic board, that is coated with a non-toxic glue. Research shows that EAB is visually attracted to purple and to increase the attractiveness of the trap to the beetles, it is baited with a lure (Manuka oil). The traps are 24" in length, triangular in shape, and open in the center. Traps are placed in the tree canopy prior to the start of adult EAB emergence and are left hanging through the end of seasonal beetle flight. Residents are encouraged to report any tree suspected of having EAB. Cases can be reported by notifying Vermont Forest parks and recreation.

Removals

To date, communities in North America have not successfully eradicated EAB once detected. Symptoms of EAB are slow to appear, making initial infestations hard to detect. Once EAB is found it is usually estimated that it has been present for 3-5 years. As the population builds, EAB eventually infests and kills all varieties of ash trees in the area. Once ash trees are infested with EAB, they typically decline and die over a period of 2-3 years. The burden of dealing with hundreds to thousands of dead and dying trees in a short period of time can place an enormous strain on a Town's budget, personnel, and resources. Management options vary and there is no one all-inclusive method. Management options are typically divided into two categories: preventative (preemptive) or reactive management efforts. Preventative efforts entail education, and preemptive removals. By preemptively treating or removing ash trees before the arrival of EAB in the community, the strains placed on a community can be minimized and provide flexibility in tree budgets. In

addition, it can potentially diminish the movement of EAB across the landscape by making it difficult for dispersing beetles to find host trees. Where reactive management, delays actions taken until EAB has arrived. It usually entails removing a tree once it is dead or infested with EAB. With both management options, removal costs are significant. The advantages and disadvantages of conducting preemptive vs. reactive tree removals include the following:

Preemptive Removals: Removing ash trees not infested with EAB

<p>Pros:</p> <ul style="list-style-type: none"> • Opportunity to spread removal costs over longer time frame. • Reduces problem of dealing with many dead and/or hazardous ash trees at one time. • Opportunity to start the replanting/recovery process right away. • Greater flexibility in organizing removal and routine work schedules. • Ability to utilize ash wood for products or use it as a local source of firewood. 	<p>Cons:</p> <ul style="list-style-type: none"> • Immediate impacts to tree canopy and aesthetics. • Removing healthy ash may create negative feeling in the community. • Does not take into account that research may find an effective control of EAB.
---	---

Reactive Removals: Removing ash trees which are either infested with EAB or dead

<p>Pros:</p> <ul style="list-style-type: none"> • Delayed impacts to tree canopy and aesthetics. • No negative public perception or removing healthy trees. • Delayed budgetary impacts until EAB hits. • Further EAB research may offer effective control, minimizing need for removals. 	<p>Cons:</p> <ul style="list-style-type: none"> • If no action is taken to control EAB infestations, studies have shown that the rate of spread will be much faster. • Budget impacts can be severe once EAB is in community. • Replanting funds may not be available due to extreme removal costs.
---	--

The following elements of the Town's EAB Readiness Plan are suggested and are subject to Periodic revision as new information about EAB is available and as EAB moves across the state. The plan is also subject to change should state and federal policies dictate or as budgets are altered. In order to prevent or slow the spread of EAB, the Town of Enosburgh will prioritize the treatment and removal of public ash trees by using data from the tree inventory. In addition, an estimated budget and timeframe will be generated

Public trees – Removals

A preemptive management strategy is recommended for the Town of Enosburgh

.

Removal Plan

The first step in the removal plan is to develop a town ordinance (Appendix 1) to allow for the removal of ash trees without having a public hearing prior to each removal. Under state statutes the town tree warden may designate trees for removal if posing a hazard. The ash trees have the potential to be infected by Emerald ash Borer but currently are not infected. If the town waits for the insect to be detected, the cost of removal of hazard trees may become unmanageable. The town Ash Tree Ordinance will allow the ash concentration be lowered slowly over time to minimize the impact to the town for the cost of removing hazardous trees. The ordinance includes the requirement to hold an annual hearing for the removal of ash trees. If conditions change, the ordinance need not be implemented or it can be withdrawn or changed.

To reduce the impact to the town road budget, a plan to reduce the concentration of ash within the town right-of-way is designed over a ten year period, removing approximately 10% of the ash from the 2013 ash inventory each year, or approximately 64 trees per year. The ten year time frame takes into consideration the possibility that research may find an effective control for the Emerald Ash Borer, and the negative impact that tree removal will have on the overall tree canopy as well as public sentiment. This plan also provides the ability to use the ash wood for local products before a possible quarantine limits movement of the wood.

It is recommended that the roads with the highest concentration of ash as well as the larger trees be targeted first, but the decision of which roads to prioritize and which trees to be removed is left to the Town Road Commissioners based on planned work load each summer. The road crew will be supplied with the inventory maps and as a tree is removed it will be crossed out on the map. At a designated time each year the road commissioner will communicate with the conservation commission to identify which trees were removed so the maps can be updated annually.

The cost of removal per trees is on average \$ 60 / tree. The recommended budget for annual tree removal would therefore be \$4000.

VI. Community Education and Outreach Strategy

The Enosburgh Conservation Commission will be in charge of public outreach. The outreach pan includes:

- 1) Work with UVM to create a poster to be displayed at Town Meeting day and later to be posted at the Town Clerks's office.
- 2) Provide the Town Clerk and Town Library with information materials on EAB and the "DON'T MOVE FIREWOOD" campaign.
- 3) Hold information meetings each spring describing EAB and its current status
- 4) Write press releases periodically in the Town paper addressing EAB, and the tree removal work.
- 5) Provide a copy of this plan to selectboard, road commissioner planning commission, Conservation Commission. Place one copy at the library, town clerk, the high school and the Cold Hollow Career Center.

VI. Disposal and Utilization

EAB Regulations for Quarantined Areas

In order to prevent further spread of EAB through artificial (human assisted) means, the following materials are regulated in quarantined areas:

- Ash trees, limbs, branches, and roots
- Ash logs, slabs, or untreated ash lumber with bark attached
- Cut firewood of all non-coniferous species
- Ash chips and ash bark fragments larger than one inch in two dimensions
- Mixed wood residue that may contain ash
- Any wood items which could harbor living EAB eggs, larvae, or adults and thus transmit an infestation.

For practical purposes, the minimum level of a quarantine will be at the county level. However, additional surrounding counties may be quarantined because of the possibility of natural EAB spread, and in order to allow for the processing of regulated articles. USDAAPHIS will primarily regulate interstate movement of regulated materials.

While movement of regulated material anywhere within a quarantine area is legal, caution should be placed on the movement of material across large expanses of the quarantine to limit any further spread of EAB. Quarantines will primarily affect nurseries, firewood dealers and users, and mills. Compliance agreements are the most common tool used to allow industries to conduct business and move affected material while protecting areas of the state not yet affected by EAB. Compliance agreements allow for the movement of regulated material from quarantined areas to non-quarantined areas from October 1 to March 31 and require all material to be processed according to legal specifications by April 30. Under this treatment schedule, all life stages would be destroyed prior to adult emergence. The dates are determined based on the life cycle of EAB. EAB is in its larval stage under the bark of the trees from approximately October 1 to May 1, thus when transporting material during this time spread is minimized. However, due to EAB typically emerging from the trees in its adult “flight” stage between May 1 and September 30, no untreated material can be moved outside quarantine areas during this summer period. Listed below is a summary of EAB regulations by industry

Nurseries

Ash nursery stock is prohibited from being distributed outside of the EAB quarantine area.

Mills & Loggers

Ash logs cannot be moved out of the quarantine area during the adult flight period (roughly April 1 through September 30) unless fumigated or debarked. From October 1 through March 31, untreated ash logs may be allowed to be moved to an approved mill outside of the quarantine area for processing by April 30. Bark and wood waste must be processed by April 30. These processes must be approved by state or federal agriculture agencies.

Firewood Producers & Users

All hardwood firewood is prohibited from distribution outside the EAB quarantine area unless it has been heat treated, fumigated or debarked (plus removal of ½ inch of wood). These processes must be approved by state or federal agriculture agencies.

Firewood not for commercial sale (homeowner use) may be moved within the quarantine

area but users should avoid moving firewood any distance from the area the wood originated from to reduce further spread of EAB.

Green Lumber Manufacturers

Ash lumber will need to be processed in an approved manner, such as complete removal of bark (plus ½ inch of wood), kiln drying by approved standards, or fumigation prior to distribution out of the quarantine area. All processes will need approval by state or federal agencies. Contact officials for further information.

Pallet Producers

Ash lumber (generated from ash from the quarantine area) used to make pallets will need to be processed in a manner approved by state or federal agencies. Contact officials for further information.

Wood Waste

Wood waste from pruning, storm damage, or removals should not be moved from the point of action in order to reduce the spread of EAB. Locations for wood waste drop-off may be established in the near future. Contact officials for more information.

Disposal Site: One aspect of reducing the spread of forest pests is properly disposing of or utilizing the wood, brush and stump grindings generated by the removal of infested trees. The disposal method and government regulations that apply to the movement, storage and disposal of woody material varies by pest. Collaborating with adjacent towns on wood disposal areas, chipping equipment, tree care crews, and utilization of ash materials – e.g., chip marketing, will save staff time and resources. Consider how to best utilize the wood to minimize environmental impact, offset disposal costs, or even create a value-added product.

1. Locate at least one wood disposal site in your town or nearby.

The purpose of a debris disposal yard is to help prevent wood which could potentially house forest pests, such as the emerald ash borer (EAB) or hemlock woolly adelgid (HWA), from being transported out of a quarantined area. They can be used as staging sites for wood processing, such as chipping, grinding, and debarking, and related marketing activities. The yards also serve as temporary or emergency storage sites when trees are removed. They allow municipalities, tree service companies, utilities and individuals to drop off cut material for processing and disposal in a manner to prevent artificial spread of EAB and HWA. Disposal sites or wood recycling centers may also accept various species, not just ash and hemlock, and can make wood disposal more efficient and economical. Locate at least one wood disposal site in your town or nearby.

Site 1 – Location: Enosburgh Town Garage

Contact Name: Joe Clark

Phone:

Mobile:

Site 2 – Location: _____

Contact Name/Role:

Phone:

Mobile:

Appendix
Inventory and maps