# Use Value Appraisal Standards for Forest Management Related to Emerald Ash Borer Infestations

Approved by Commissioner Snyder April 17, 2018

## Overview

Emerald ash borer (EAB) has been detected in Vermont and poses a significant threat to all species of ash trees in the state. Adult emerald ash borer beetles feed on the leaves of the trees; however, it is the larvae that cause the most damage, ultimately killing ash trees through the creation of S-shaped burrows (called galleries) just underneath the bark. An abundance of galleries in a single tree ultimately severs the flow of carbohydrates within the tree, usually causing tree mortality within three to five years.

Widespread ash tree death will change forest ecosystems in unpredictable ways. All landowners in Vermont should be considering the implications of EAB on their land, understanding that ash trees become more vulnerable with increased proximity to an EAB infestation. Landowners planning to harvest ash trees must now plan strategically to retain the economic value of their woodlot while preserving forest health and diversity (which also support economic value in the long term).

Management activities in response to EAB that retain, regenerate, and grow high-quality sawtimber trees; that maintain ash as a component of the forest; that support species- and age-class diversity across the landscape; and that preserve soil health and stability will support the continued ability of Vermont forests to provide a wide diversity of both ecosystem benefits and economic benefits in spite of EAB. The harvest of ash trees in the near future may be part of an effective silvicultural approach for many landowners on many parcels but will not necessarily be the most appropriate strategy on all parcels. Landowners and forest managers are encouraged to respond to the threat of EAB in ways that strike the right balance between the immediate and long-term needs of landowners and overall forest health and productivity.

## Forest Management Plan and Amendment Policy

Forest management activity on land enrolled in Use Value Appraisal (UVA) must comply with a forest management plan approved by the Department of Forests, Parks and Recreation. Forest management plans may be amended to adapt to changing conditions or objectives, including the threat posed by EAB. The silvicultural response to EAB, including prescriptions of ash salvage or preemptive salvage, should be designed and implemented in ways that are consistent with long-range silvicultural objectives and with UVA program and management plan standards. Where EAB does not pose a significant or urgent threat, where management activity will not advance objectives, or where there are operational limitations to an effective response, “no activity” may be a reasonable, approvable option.

<u>Management terms</u>

- Salvage: In the UVA program, salvage cutting is defined as the removal of trees that have been or are in imminent danger of being killed or damaged by natural injurious agents other than competition among trees. **A “salvage” prescription is only appropriate if signs or symptoms of EAB are present.**

- Preemptive Salvage: Preemptive salvage is not defined for UVA purposes. However, preemptive salvage is often used to characterize management strategies that are silviculturally justified and are designed, in-part, to harvest trees in advance of expected damage or mortality that may result from a natural injurious agent other than competition among trees. It differs from salvage in that salvage would occur where damage or mortality has occurred, and preemptive salvage would occur where the damage or premature mortality is expected but has not occurred.

EAB Management Considerations:

- The closer a stand is to a known infestation, the sooner it will be affected, and the more urgent it becomes to plan for EAB. At 10 miles from a known infestation a stand with ash may affected by EAB within a few years.
- Retain, regenerate, and grow high-quality trees of commercial species, including ash, with good vigor and growth potential.
- As necessary, and where appropriate, integrate ash salvage or preemptive salvage with already planned silvicultural strategies to achieve long-range objectives.
- Attempt to maintain ash in the forest. Retained and surviving ash trees will continue to produce the seed that is necessary to establish the next generation of ash trees.
- Silvicultural adjustments related to ash management may include:
  - Reducing the percentage of ash in a stand.
  - Reducing diameter objectives for ash.
  - Favoring retention, regeneration, and release of non-ash species.
  - Preventing establishment of, and/or controlling invasive plants, particularly where they will be released by dying ash, salvage of ash, preemptive salvage of ash, or any harvesting.
  - Delayed harvesting, release or retention of scattered ash trees, and silvicultural approaches that enhance vigor and growth in retained ash.
  - Incorporation of silvicultural strategies that support regeneration of ash in conjunction with commercial non-ash species.

Stand Objectives and Prescription Standards:

- Revisit long-range silvicultural objectives for stands with a significant ash component.
- Keep prescriptions consistent or compatible with long-range silvicultural objectives.
- Prescriptions, including salvage and preemptive salvage, must include the following:
  - Description of trees to be harvested including information on species, diameters, quality, etc.
  - Species favored for retention
  - Species favored for regeneration
  - Residual stocking objectives for the stand expressed in basal area per acre.
  - Other required parameters will vary based on treatment type. See Plan Standards for more details on requirements.
- Ensure that all prescriptions include sufficient detail to allow for effective evaluation of the treatment's consistency with management objectives and existing stand conditions.
- When considering silviculture that incorporates elements of salvage or preemptive salvage; if common silvicultural treatment types such as thinning, group selection, etc., reasonably characterize the silvicultural activity intended to adapt to EAB, then these should be used to describe the treatment.

## Useful Links

- Emerald Ash Borer - Information for Forest Landowners - a resource
- Stay up to date with known infestations at vtinvasives.org
- Contact a consulting or county forester to learn more about the impact of EAB on forestland.
- Review the Landowner Guides for a Successful Timber Harvest at www.VTCutWithConfidence.com
- Refamiliarize yourself with the general requirements and opportunities in the Use Value Appraisal Program by reviewing the UVA brochure.