



Emerald Ash Borer Response Plan City of Lafayette, Colorado

Background

Emerald ash borer (EAB) is an invasive insect that infests the ash tree populations of the Fraxinus species. EAB was first identified in the state of Michigan state in 2002 and has since been responsible for the death or decline of tens of millions of ash trees in over 20 U.S. states. The result of EAB infestation is a cost of billions of dollars for impacted communities to treat, remove and replace infested ash trees. EAB adults are approximately ½ inch long with a metallic, emerald-green head/back and a coppery reddish-purple abdomen. EAB bore into the ash tree where they lay eggs while the developing larvae feed on the inner bark causing a “girdling effect” on the ash tree. The “girdling effect” interrupts the capillary action within the tree, thus disrupting transportation of water and nutrients which the tree needs for survival.

EAB has already cost communities billions of dollars in the affected states. This destructive pest has the real potential to detrimentally impact the social, environmental and economic benefits provided by ash trees in Colorado. Specifically, negative impacts caused by declining or eradicated ash tree populations may include loss of property values, increased energy cost due to diminished community shade canopy, increased storm water costs, impact to businesses and reduction in carbon sequestration.

In September of 2013, EAB was detected within the City of Boulder as the first suspected EAB in Colorado. After EAB was officially confirmed, Boulder County was placed under quarantine on November 12, 2013 by the Colorado Department of Agriculture (CDA) and the United States Department of Agriculture – Animal and Plant Health Inspection Service – Plant Protection and Quarantine (USDA-APHIS-PPQ). A quarantine of this nature is a Federal and State regulatory law effectively restricting the transport of infected tree debris outside of the quarantined area. As of the writing of this report, Boulder County is the only quarantined area in Colorado. All tree debris must remain in the quarantined area of the County with the exception of two nearby landfills until further notice.

In the greater Denver Metropolitan area the potential economic impact has been estimated at over one billion dollars for treatment, removal and replacement of ash trees should the spread of EAB fail to be contained.

Purpose and Scope of the Plan

The purpose of this plan is to provide a response strategy for the pending infestation of emerald ash borer (EAB) in an effort to minimize the pest's destructive impact on ash tree resources within the City of Lafayette. The scope of this plan applies directly to ash tree resources located on publicly-owned lands or where ash trees may negatively impact public right-of-ways or other public properties under the jurisdiction of the City of Lafayette. However, specific strategies and protocols within this plan may be of help to owners of ash trees located on private lands. Furthermore, components of this plan are intended to provide proactive communication and outreach to the private landowners of Lafayette in order to better educate and equip the private sector for effectively managing EAB in ash trees.

Plan Administration

The Parks, Open Space and Golf (POG) department of the City of Lafayette will take the primary lead on implementing this plan. Pursuant to direction from Lafayette's City Council, POG will begin to take steps to preserve and manage ash tree populations on publicly-owned lands with the resources provided by the City. City Administration will provide executive oversight over the POG department for the implementation of the EAB plan. The Lafayette Open Space Advisory Committee (LOSAC) officially functions as the City's tree board and will advise city staff related to EAB management steps and public outreach. If necessary, LOSAC will also make recommendations to City Council during the process of actively managing EAB within the city limits of Lafayette.

The Colorado Department of Agriculture (CDA) and the United States Department of Agriculture – Animal and Plant Health Inspection Service – Plant Protection and Quarantine (USDA-APHIS-PPQ) have the responsibility and authority for regulatory and quarantine actions to prevent or delay the spread of EAB. All local governments will implement coordinated efforts to contain the infestation under the leadership of the CDA and USDA. Should pesticide treatment of EAB be determined as necessary, all pesticide applications (restricted or general) shall be conducted by a CDA-certified operator under the supervision of a CDA-qualified supervisor. The City of Lafayette POG department currently employs staff that is qualified through the CDA certification process. All outside contractors working for the City of Lafayette will also comply with the above requirements.

Timeline for Implementation of the Plan

Upon completion of an ash tree inventory and assessment on City-owned lands, the City's primary objective will be to begin treatment and/or removal options in mid-to-late Spring of 2014, contingent upon available resources. The implementation of the EAB Response Plan is projected to be in place for many years depending on the success of restraining the movement of the pest and/or pest-infested wood debris.

Code Compliance

Enforcement of Lafayette's ordinances largely resides under the authority of the Planning and Police departments. The current code stipulates landowners abutting to streets and right-of-ways are responsible to perform perpetual treatment, removal and care street trees as needed. In unison with the intent to control EAB, ash trees will be restricted from use by executive order from development proposals currently in process or yet future. Further action to add the *Fraxinus* species of ash tree to the City's prohibited tree planting list is recommended by this Plan. Restrictions should remain in effect until such time that the regional infestation event subsides, as confirmed by the CDA.

In the event of a wide-spread infestation of EAB in Lafayette, the City Forester will work with Code Enforcement to help insure the safety of residents from unattended diseased trees along pedestrian routes and City streets. Section 70-15 and 26-19-5(c)(viii) of the City Code will be reasonably enforced pursuant to further direction from City Council. LOSAC will also function as the City's Tree Board in areas of question.

Inventory and Assessments

Once EAB was confirmed in the City of Boulder, POG staff immediately began to conduct an on-site inventory of all ash trees on publicly-owned lands. Staff followed up with an assessment of each ash tree to determine its relative tree health and community value. This assessment will be used to help decision-makers in developing needed resources and prioritizing treatment options.

Initial inventory efforts have revealed a total of 573 ash trees on City-owned lands. This includes all parks, city facilities, streetscapes, cemeteries and the golf course. The current effort does not include an inventory of City-owned open space, as the number of ash trees on open space is very minimal and the *Fraxinus* species ash tree is not considered indigenous or desirable on open space lands. The assessment of each ash tree begins to provide a clear picture of which trees are priority trees to preserve, based on tree structure, caliper-size, overall tree health and location.

Ash trees on City-owned lands comprise a small percentage (3.1%) of the overall population of ash trees in Lafayette. The 2013 Metro Denver Urban Forest Assessment estimates there are 146,566 trees (of all species) in Lafayette. Of this total it is estimated that 12.6% of the total trees in Lafayette are ash trees, which accounts for 18,466 ash trees within the City limits.

Funding for EAB Management

City staff will endeavor to distribute costs associated with EAB over a manageable period of time. In addition the staff will work to help minimize the social and economic impact that potential loss of public ash tree resources may have on the quality of life in the Lafayette community.

In order to effectively combat EAB and to preserve the high-priority ash trees on public lands, additional resources beyond the annually approved budget will likely need to be established. Once treatment options are estimated and prioritized pursuant to the ash tree inventory and assessment, a proposal will be submitted to City Council for their consideration in the form of a budget supplemental request. Subsequent years for properly funding the EAB Response Plan will be submitted through the normal budget cycle if at all possible.

Communication and Public Outreach

EAB outbreaks along the Front Range will not demonstrate partiality to property line boundaries, which will most likely affect most ash tree owners, whether privately or publicly owned. In order to assist in the broader effectiveness of EAB control and management, this plan anticipates a public outreach and communication effort on the part of the City of Lafayette. Multiple venues for educating and equipping the general public may include, but may not be limited to:

- Local press releases
- Channel 8 informational releases
- Letters to Homeowners Associations within Lafayette
- Informational packets on EAB available to the public
- Current EAB updates on the City's website with applicable official links
- Concise informational flyers inserted into utility water billings
- Ongoing information shared through the City's social media networks
- A list of the City's pre-qualified tree contractors for the citizen's consideration
- Public informational meetings provided in conjunction with the Colorado State Forest Service

Efforts will be made to assist the citizens of Lafayette with their questions related to EAB management, however, services such as physical on-site visits or assistance in performing treatments and/or removal of ash trees will not be available as a City service to private and commercial owners of ash trees.

Treatment Options (chemical/biological treatments, removals, replacements)

Several options for treatment should be considered in the light of imminent EAB infestation. Response options include:

1. Chemical/Biological Treatment – This should be considered as an option if ash trees of significant value are within 5 miles of a confirmed EAB infestation. The overall health of the ash tree should be assessed as excellent to very good and of notable size and caliper. Even if the ash tree has up to 40% canopy dieback due to EAB infestation, chemical treatment may be successful.
2. Wait and See Approach – This option could be considered for ash trees that are of nominal value and/or health. This approach provides for more of a last-

minute option for treatment based on severity of the nearby infestation and resources available for treatment.

3. Preemptive Removal/Replacement – This option should be considered if the ash tree is not in good health or is structurally inferior. Trees nearing their expected life-span or trees that are in a declining health status are not good candidates for chemical treatment and may need to be considered for removal and replacement with a different tree species.
4. Preemptive Substitute Planting – This option may be considered if the ash tree is likely subject to loss due to EAB infestation because other treatment options are not preferred, and if there is another location nearby for the planting of a substitute tree, not of the ash species.

Monitoring and Early Detection Protocols

Regular monitoring and early detection of EAB activity is essential to the effectiveness of EAB management as well as broadening the options for potential treatments. Monitoring and early detection protocols will consist of the following:

1. Visual inspections on a monthly or regular basis. Visible damage caused by EAB is typically noticed starting at the very top of the tree. Die-back generally begins at the top of the tree and works itself downward.
2. Approved sample collection and examination of suspected infested ash trees by carefully stripping the bark to confirm the presence of EAB larvae or larvae tunneling.
3. Extrapolation of gathered data to inform the public and other agencies of the location of confirmed EAB infestations.
4. Inspection of EAB trap and catch logs, if utilized. Working with State and local officials to monitor EAB presence in the surrounding areas.

Note that often ash trees with low densities of EAB may not show actual external symptoms of infestation. Therefore, high value ash trees within the area of known EAB infestation, and up to a five-mile radius of this infestation, may benefit from treatments. Treatments are most effective when applied before trees are infested; however, treatments can also save ash trees with a low level of EAB infestation.

Early detection of possible EAB activity will utilize the protocols provided in this section to help determine if the CDA should be contacted. If EAB activity is suspected City staff will contact the CDA at:

Colorado Department of Agriculture – (888) 248-5535

If EAB presence is confirmed within the City limits by the CDA and the USDA-APHIS-PPQ, the City will be allowed to act under their own local authority when local ordinances are applicable and consistent with the CDA and USDA-APHIS-PPQ quarantine requirements.

Risk Management

The City of Lafayette employs a Risk Manager to coordinate and oversee insurance requirements and risk assessments. As potential risks associated with EAB infestations develop, the Risk Manager would provide information and resources to help mitigate those risks, and claims management services should they become necessary.

Disposal of Infected Ash Trees and All Non-Coniferous Firewood

On November 12, 2013 the CDA established a quarantine zone around Boulder County, the entire City of Erie, the two Erie landfills and the Republic landfill off of highway 93 in Jefferson County. This quarantine effectively prohibits the transport of all ash tree debris outside of the quarantined area. Exceptions to the quarantine restrictions are allowed only by acquiring a Compliance Agreement from the CDA by successfully meeting the criteria for proper treatment and handling. The City of Lafayette has no jurisdiction to regulate the transport of ash tree debris but will work in cooperation with the CDA for compliance and will comply with all quarantine mandates. The City of Lafayette is currently not in a position to receive ash tree debris but will alert the citizens as to where debris may be taken.

Alternatively to acquiring a Compliance Agreement from the CDA, other options for ash tree wood utilization are available to date:

1. Mulching and using the mulch within the quarantined area
2. Composting and using the compost within the quarantined area
3. Cutting for use as firewood within the quarantined area
4. Milling for use as lumber within the quarantined area
5. Hauling the wood and debris to approved landfills or County marshalling yards within the quarantined area, or leaving the debris remains on-site if allowed by local ordinance.

According to the CDA, any person violating the quarantine or Compliance Agreement is subject to civil penalties up to \$1,000 per violation pursuant to 35-4-114.5, C.R.S.

Long-term Plan for Tree Canopy Care

Diversity plays an essential role in the long-term stability of an urban forest. An over-abundance of any single tree species increases the susceptibility of the tree to diseases or pests. A general guideline for urban forest diversity promotes the 10-20-30 rule. This rule states:

- No single tree *species* should make up more than 10% of the total tree population
- No single *genus* should make up more than 20% of the total tree population
- No single *family* should make up more than 30% of the total tree population

Resource for More Information on EAB: www.eabcolorado.com