



City of Saint Paul, Minnesota

Emerald Ash Borer Management Program 2022 Annual Report 2023-2024 Recommendations

The City of Saint Paul's (the City) EAB Management Program began in 2010, making 2022 year thirteen of EAB management in the city. However, as it has been estimated to have arrived as early as 2004, next year will mark the nineteenth year of EAB's existence in our city. Recognizing this complete timeframe is fundamental in understanding the progression of the EAB infestation and projecting future management needs.

Officials who have dealt with EAB infestations elsewhere have warned that it is a fast-paced event, lasting perhaps 10-20 years, before 100% tree mortality is reached. While the spread of EAB in Saint Paul has lagged behind projected curves in terms of ash tree mortality rates, it still means the loss of all ash trees not treated with insecticides, including approximately 27,000 (ca 2009) on city streets, and thousands more on both public parkland/open space and private property. It requires that the City, residents included, be prepared to handle a glut of dying trees in a short timeframe or suffer the consequences of thousands of dead and potentially hazardous trees in the landscape.

This document summarizes management events of 2022 along with recommendations for EAB management in 2023 and 2024.



***NEW* A new funding partnership with the Saint Paul Port Authority in 2022 gave the City the ability to speed up the timeline for stump grinding and replanting, and to address backlogs in certain areas created by the resource demand of EAB management. Utilization of these new funds has created the opportunity for the City to have the remaining ash tree removals on city streets completed by the end of 2024, with stump grinding and replanting following within one year.**

Inventory

A basic knowledge of current conditions of the urban forest, i.e. an up-to-date inventory, is required to direct management needs and goals in terms of the EAB infestation. This information is of increasing importance as the City will likely face liability issues with the remaining ash tree resource (approximately 4,250 remaining on boulevards and parkways).

The City of Saint Paul receives dozens of claims for damage caused by publicly owned trees every year, many of which are for ash trees that lose branches or completely fail (ash species quickly become brittle and are prone to failure upon decline and death). As ash mortality increases due to EAB infestation such claims are likely to increase unless trees are promptly removed, which will only be increasingly less likely as the number of trees in need of removal is expected to rise dramatically. Thus, it is imperative that comprehensive tree inventory records are kept not only to coordinate ash tree management, but also to document calls and work history for use when reviewing risk management claims.

2023/2024 Recommendations—Inventory:

- **Continue real-time updating of boulevard and park trees as work is performed.**
- **Continue to add parkland trees to inventory as capacity allows, especially active use areas.**
- **Execute contract from RFP that went out in Fall 2022 to have a private company update the street tree inventory in 2023.**

Monitoring/Inspection

Routine monitoring and inspections have played a vital role in extending the timeframe for EAB management. Coupled with sanitation, it is likely that these efforts significantly influenced the delay in tree mortality in Saint Paul. Monitoring efforts in recent years has confirmed that the EAB infestation has now spread to 100% of the city and is outpacing the removal of known infested trees.

It is important to note that without additional increases in EAB management staff since 2010, providing inspections of privately owned ash trees became impossible as EAB progressed across the city. In lieu of providing requested inspections for property owners, beginning in 2019 City staff began performing an annual city-wide inspection of all right-of-way ash trees during the growing season, noting canopy condition, dead standing trees, and overall tree health using a simple rating system. This monitoring data is then used to determine the following year's Structured Removal plans.

As with publicly owned ash trees, private property trees will continue to become infested with EAB, and those trees will die if property owners do not proactively deal with them either by having them removed or by treating them with an insecticide. It is a forgone conclusion that the City will be increasingly enforcing its ordinance regarding dangerous trees moving forward as ash trees become increasingly infested and pose potential hazards to adjacent properties, both public and private. Meanwhile, the City has continued to be proactive in educating citizens on the issues of EAB through its outreach efforts (see Outreach section).

2023/2024 Recommendations—Monitoring/Inspection:

- **Continue annual city-wide inspection of public property ash trees to guide EAB management.**
- **Use information to prioritize removal schedule for declining ash trees.**
- **Increase staff management of dying ash trees on private property that would meet the conditions of the City's ordinance for Dangerous Trees.**

Removals

Structured Removal

Structured Removal (SR) is the systematic removal of entire blocks of ash trees throughout the city. It was designed as an economically advantageous program—the necessity of revisiting the same street repeatedly over consecutive years to remove individual ash trees is eliminated; tree and stump removal is faster and therefore less costly; tree replacement is more efficient, an important factor when considering that while planting costs are on the rise the City still benefits by saving on internal staff time. 2022 saw a shift from the removal of predominantly SR blocks (2,600 trees in 2021 vs. 700 trees in 2022) toward the removal of individual ash trees spread across the city. The 2021 survey identified the SR blocks as well as 2,100 individual ash that were all removed in 2022 (see “Individual Removals” below).

Since infestation levels have outpaced the City’s ability to keep up with infested tree removals for several years, a schedule has been created where stump grinding and replanting are delayed, favoring prioritizing the removal of potentially hazardous infested trees.



Construction-related Removals

In 2010, the Parks and Recreation and Public Works Departments began working together to create efficiencies in street construction projects where ash trees existed. Over the past twelve years, nearly 2,000 ROW ash trees have been removed prior to street reconstruction, later replaced with a more diverse selection of trees. This program has worked well as major street construction has detrimental impacts to the health of mature trees, and while tree loss can dramatically change the streetscape, it has become an accepted practice in Saint Paul to proactively remove and replace these trees during construction projects.

Individual Removals

As SR efforts clear large blocks of ash, the City has continued to monitor and remove individual ash as needed. Those ash that are only among a small number on any given block, or those that are the only ash on their block, have not been included in the SR efforts, but rather were monitored and removed if necessary, on a case by case basis. The 2021 survey showed that it was finally necessary to remove these individual ash in 2022 as they were failing in large numbers. Forestry will return to the predominant removal of SR blocks in 2023.

Removals Near Overhead Utilities

Working in conjunction with Xcel Energy, the City has prioritized the removal of all boulevard ash in potential conflict with power lines. Significant progress has been made in this regard, with the removal of only 40 ash trees adjacent to power lines in 2022, and the final 50 ash tree removals planned for 2023 or 2024.

Park Removals

Trees growing in managed open-space are prioritized over those in unmanaged wooded areas, however ash growing in wood-lines that could potentially impact managed areas, paths, or roadways have been and will continue to be addressed.

The City continued to work through removing ash throughout the park system, including removals along the Mississippi River corridor, and other natural areas such as Indian Mounds Regional Park. The City will continue these efforts into 2023 and 2024.

Since 2011, the Minnesota Department of Agriculture (MDA) has been utilizing biological controls in the form of parasitic wasps to help combat EAB. The tiny, non-stinging wasps have been released along the river corridor and in other natural areas with the hope that they will help to stabilize the EAB population so that it does not reach the expected explosive growth it is capable of. More information on that program can be found at



<http://www.mda.state.mn.us/plants/pestmanagement/eab/eabbiocontrol.aspx>.

2022 ash removal numbers include:

- 3,228 total ash trees removed from city ROW's and Parks (YTD Total = 25,575)
 - 2,939 ROW ash trees (YTD total ROW ash removed = 22,280)
 - 706 Structured Removal (infested)
 - 50 Construction related
 - 17 MnDOT trunk highway removals
 - 2,166 individual infested and other
 - 289 Park ash trees (YTD total Park ash removed= 3,295)
 - Mears Park, Phalen, Hidden Falls, Cherokee, and others

2023/2024 Recommendations—Removals:

- Remove all remaining un-treated, publicly owned ash trees along streets utilizing SR between 2023 and 2024.
- Continue ash removals within the scope of opportunity-based programs such as street reconstruction and Xcel Energy project areas.
- On parkland, within budget capacity, remove all untreated ash trees, utilizing an approach similar to SR.
- Continue to employ creative management options for infested trees in the river corridor, e.g., use of grants, partner organizations, and volunteers.

Insecticide Treatment

The City's goal for insecticide treatments of public trees was to reduce EAB populations in order to extend the timeframe to complete ash removals and replanting on public property. Following an outreach campaign in 2021 to alert residents of the discontinuation of city provided treatment, 2022 saw the last treatments applied, and that program has been discontinued. Those ash trees previously treated by the City, and where property owners have not elected to continue treatment via the permit process, will be removed as part of ongoing Structured Removal efforts in 2023 and 2024. Some select specimen park ash trees will continue to be treated indefinitely.

Forestry uses various insecticides with active ingredient emamectin benzoate – a non-neonicotinoid – administered through trunk injection (versus a soil drench or other methods). Injecting the chemical directly into the tree is meant to reduce exposure of the pesticide to other non-target organisms. Insecticide treatments must be repeated at a regular interval of every 2 to 3 years to ensure survivability from EAB. Treated trees have an aluminum tag attached to them with the most recent year of treatment, e.g., "ST PAUL, EAB, 2020". Those tags will be removed as the trees are scheduled for removal.

2022 ash treatment numbers include:

- 829 total ash trees treated under contract with private tree care company:
 - 691 ROW ash tree
 - 138 Park ash trees (*# of Park trees in continued treatment = 112*)
- 253 ROW ash treated by adjacent property owner through permit process

2023/2024 Recommendations–Insecticide Treatment:

- **Continue treatment of 112 Park ash trees using emamectin benzoate.**
- **Continue issuance of free permits to residents who would like to treat their boulevard ash tree at their own expense.**
 - **Permits will be reviewed on a case by case basis and approval requires the tree to have been previously treated by the City, and meet certain condition criteria.**

Reforestation

Reforesting the city with a diverse palette of young trees is the primary objective in preserving the vibrancy of our urban forest while reducing the chance of future widespread tree loss events. While it is impossible to avoid the introduction of new pests and diseases, refraining from monoculture planting schemes can help to reduce their potential devastating impacts.

Since the EAB Management Program began, the goal for reforestation has been to replace every ash tree removed at a 1:1 ratio. The partnership with the Port Authority allowed for more expedient tree replacement in 2022. Planting of ash replacement trees on Structured Removal blocks, in parks and construction areas, and through the citywide tree planting program all took place in 2022 (see below). Continued partnerships with groups such as Mississippi Park Connection and Tree Trust have helped to increase plantings city-wide. These numbers do not include the thousands of smaller trees (*mostly seedlings or saplings*) planted in park natural areas through the Environmental Services unit of the Natural Resources Section.

2022 ash replanting numbers include:

- 2,360 trees planted on Structured Removal blocks from 2021
 - 100 trees planted through DNR Bonding Grant partnership with Tree Trust
- 263 trees planted in parks
 - 94 trees planted by Tree Trust at Phalen through the US Forest Service SUFR grant

2023/2024 Recommendations—Reforestation:

- Utilize new funding to increase planting numbers city-wide.
- Continue to use mixed planting schemes and a diverse palette of tree species.
- Continue natural resource related planting projects in parks to off-set the loss of ash trees, seeking grants and other funding opportunities.
- Increase planting in parks with less expensive containerized and bare root gravel bed trees as a replacement for ash removed from system.



Outreach

Emerald ash borer information is primarily disseminated to residents via the internet:

- www.stpaul.gov/forestry (main Forestry web page with links to EAB)
- www.stpaul.gov/EAB (bypasses the main Forestry web page and takes you directly to EAB)

The City utilizes the following to inform the public on EAB:

- EAB website (www.stpaul.gov/eab)
 - [EAB FAQ sheet](#)
 - [Interactive Boulevard Ash Tree Management Map](#)
 - “Emerald Ash Borer Management in Saint Paul” video
 - Compilation of links to additional resources
- Direct mail postcards (photo to right)
- Community newspapers
- Social media
 - Facebook: [Saint Paul Natural Resources](#)
 - Instagram: [@SaintPaulNaturalResources](#)
- City Council & District Council offices
- Door Hangers
- Staff attendance at various public meetings, workshops, and events



The [Homeowner’s Guide to Emerald Ash Borer](#) is a resource the City has created and maintains regularly with up-to-date information on how to identify ash trees and management strategies available. Unfortunately, there are very few options—treatment or removal/replacement, and as trees become more infested the treatment option becomes less viable. Unmanaged ash trees left in the landscape will succumb to EAB and will potentially pose a safety risk to individual properties, adjacent properties, or the public. Therefore, the “do nothing” or “wait and see” approach is not recommended.

Expansion of existing Tree Steward outreach efforts aimed at engagement of communities in planting and maintaining trees is another goal as we move forward. Having more residents that are knowledgeable and actively assisting the City with public spaces or helping neighbors plant on private property will ensure the health and longevity of a more resilient urban forest.

2023/2024 Recommendations - Outreach:

- **Upon request, attend community meetings to present information on EAB.**
- **Expand Tree Steward programs to include planting and maintaining young city trees.**
- **Expand efforts to assist residents with information in dealing with private property ash trees, including guidance on pesticide use, or removal and replacement tree planting.**