



**TOWN OF AURORA  
GENERAL COMMITTEE REPORT**

**No. PR15-016**

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**SUBJECT:** *Emerald Ash Borer Management Plan Update*

**FROM:** *Allan D. Downey, Director of Parks and Recreation Services*

**DATE:** *June 2, 2015*

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**RECOMMENDATIONS**

***THAT Report No. PR15-016 be received; and***

***THAT the Emerald Ash Borer Management Plan report be received as information; and***

***THAT staff conduct an assessment of the Ash trees that have received their first treatment of TreeAzin for the purposes of measuring the effectiveness of the Emerald Ash Borer treatment program and report back to Council on this matter; and***

***THAT Council approve the use of "IMA-JET" as an additional alternative Emerald Ash Borer control measure subject to meeting all applicable requirements and approvals as set out in the Provincial Pesticides Act and Regulations.***

**PURPOSE OF THE REPORT**

To provide an update on the Emerald Ash Borer (EAB) Treatment Program and to obtain approval to potentially utilize a new treatment product for the control of EAB.

**BACKGROUND**

In May 2012, Council approved recommendations in report PR12-017, a multi-year, bi-annual Ash Tree Treatment Plan, for the control of EAB using the non-chemical control product "TreeAzin".

The first Ash tree treatment was administered to 50% of the Ash street tree inventory in early summer 2013. The second application was administered to the remaining 50% of the inventory, including an additional quantity of Ash trees in Aurora parks, in the summer of 2014. A total of 2,073 trees have been treated to date.

The second round of EAB treatment is scheduled to take place commencing in early Summer 2015, and will involve re-treating the first 50% of the Ash tree inventory followed by the final approved re-treatment of the remaining 50% of the inventory to take place in early summer 2016. This will conclude the first approved treatment plan and funding program whereby each candidate Ash tree will have received two bi-annual treatments of TreeAzin.

As indicated in previous reports, it was expected that there would be a number of trees that would not be selected for treatment due to their poor health condition and the fact that there were already signs of EAB infestation in some of these trees. Another 109 Ash trees were destroyed by the 2013 ice storm.

## COMMENTS

All candidate Ash trees in the tree inventory have now received their first treatment with TreeAzin and staff are continuing to closely monitor the remaining Ash tree inventory for any signs that might indicate that the level of EAB infestation is increasing, decreasing or remaining static.

By the end of 2014, it was apparent that the presence of EAB had generally increased as more and more trees on both private and public lands within our woodlots were showing signs of crown thinning and canopy decline.

Staff will be observing the street trees that have received the first Treatment of TreeAzin as the season progresses and will be better positioned to evaluate the effectiveness of the treatment and report back to Council with further information and recommendations concerning the treatment plan later this coming summer. Initially, the TreeAzin treatment plan was recommended by the manufacturer to be applied to lightly and non-infested Ash trees once every two years as this frequency of treatment had shown positive results in field trials and preliminary use in its control over the insect.

Recent information obtained by staff from the manufacturer of TreeAzin suggests that consideration be given to treating Ash trees in at least one consecutive year in areas where EAB infestation is moderate to heavy. Unfortunately this information was not available or provided by the manufacturer of TreeAzin when the Town embarked on the EAB Treatment program. Staff does not believe this information was withheld or that the product was misrepresented as it was relatively new to the market and had shown good results in preliminary trials and testing in Oakville, Ontario.

Staff participated in a Webinar session with Bio Forest, the makers of TreeAzin on May 5, 2015, where the issue of Annual vs. Bi-annual treatments with TreeAzin were discussed. Staff requested an explanation and rationale behind the change in the suggested treatment schedules. Bio Forest indicated that there are a number of factors

to consider that involve the level of infestation, the length of time that the infestation has been present in the geographic area and the ongoing collection of data associated with EAB treatment plans and their effectiveness in the Province of Ontario. Bio Forest did not indicate or recommend that all treatment plans should be immediately reconsidered or bolstered; however, they did offer the following response to a question posed to them by staff:

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Good afternoon,

Thank you again for attending the *Treatment Strategies for Emerald Ash Borer* webinar today.

I would like to take this opportunity to add content to a question asked during the webinar, as it is a question we get often and holds great importance when considering treatment strategies.

*Q: We are in an area of Aurora ON that is moderately infested. We advised our council that we would need to treat every other year and now it appears we are looking at every year which creates issues for us. Based on what we initially advised our Council, what would you suggest we tell our Council at this point?*

A: It is important to consider the most relevant science when determining treatment schedules for EAB. With new science becoming available regularly, the best approach is to be adaptable in your treatment strategy. BioForest has collaborated with the Town of Oakville, Michigan State University, Purdue University, and the U.S. Forest Service to develop a treatment schedule that will increase the probability of success when using TreeAzin to combat EAB. The schedule has been designed to include only one additional treatment during peak EAB populations when compared to a biennial treatment schedule. BioForest is happy to work with municipalities and share information and advice related to EAB management and the use of TreeAzin. Please do not hesitate to contact and engage BioForest and our expertise in your explanations/presentations to council members. Whether it be a phone call, private webinar or in-person presentation, BioForest is happy to help communicate the science behind our recommendations”

Best regards,

Brian Ehnes | *Manager - Business Development & Technical Support*

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Notwithstanding the above information, staff trust that TreeAzin is still an effective EAB control method and that many of our Ash trees treated with this product remain healthy at present; however, it does appear that more current information on using this product has emerged that would have a significant financial impact on our EAB treatment program. It now appears that it will be necessary to conduct at least one application of TreeAzin pesticide on an annual basis until the EAB infestation has leveled off.

In the event that our Ash tree inventory will need to be treated in consecutive seasons, the cost of the program will be doubled in the near term and there is no certainty that consecutive treatments would be discontinued over the longer term. As such, the financial investment could very well outweigh the cost of removing all of the Ash trees and replacing them with alternative species.

This latest development has most definitely altered our initial business case rationale and perhaps is a turning point in our overall EAB Management Strategy and the

continuing use of TreeAzin.

In view of the above situation, staff has discussed the issue of annual treatments with our current EAB treatment contractor and we have since been advised that Heath Canada's Pest Management Regulatory Agency has approved the registration of another effective product. This product is sold under the trade name of IMA-JET and has been classified by the Ontario Ministry of the Environment as class 9 pesticide. A class 9 pesticide contains ingredients in products that may be permitted to be used under special circumstances only under exceptions to the pesticides ban in Ontario as follows:

#### Arboriculture Exception

- There is an exception to the cosmetic pesticides ban to the use of a Class 9 pesticide to maintain the health of trees in treed areas not exceeding one hectare in size. This exception does not include pests damaging the fruit of a tree since these pests would not impact the health of the tree.

Unlike TreeAzin, which is a biologic, low toxicity, non-chemical product, IMA-JET contains the chemical compound "Imidacloprid" which is highly toxic to EAB larvae and is applied in the main tree trunk at grade level into the tree's root flare. The product is encapsulated, within a sealed plug system such that no chemical contact can occur on the outside of the host tree. IMA-JET is from the Neonicotinoid family of pesticides and is currently the subject of controversy in the agricultural and Apicultural industry as it has been linked to the decline of Honey Bee colonies in some parts of the province. The Province of Ontario is likely to enact a partial ban of Neonicotinoids used in the coating of agricultural seeds in a number of cereal and grain field crops.

IMA-JET has been widely used in the U.S. with very good results in controlling EAB and, in view of the fact that IMA-JET was just recently registered in Canada (August 2104) for Arboricultural use, it will not likely be on the slate of ban pesticides for its intended use in the treatment of non-fruit crop trees such as Ash trees. In-depth review of the available information on IMA-JET and discussions with our current EAB treatment contractor, staff feel that this product may be another useful tool in the control of EAB should the need arise. The following are some of the benefits and criteria associated with IMA-JET treatment:

- Entirely contained and encapsulated product with no collateral risk to environment, non-target insects, animals or humans;
- Application occurs following tree pollination period to reduce or eliminate risk to pollinators;
- Potentially more effective in the control of EAB;
- Treatment must occur on an annual basis until control has been realized; however, product is 50% less expensive than current product being used; and
- Must post-pesticide warning signs or obtain approval from Ministry of

Environment to waive individual site signage posting.

Staff continues to research IMA-JET and is making a concerted effort to determine if any other municipality in Ontario is utilizing this product in their fight against EAB. Currently, no other municipality has been identified as a confirmed user. This could be because the product is new to the Canadian market and not unlike us; others in the public municipal forestry sector are reviewing their treatment plans and available options at this time.

### LINK TO STRATEGIC PLAN

EAB Treatment for Ash trees in Town Parks supports the Strategic Plan goal of Supporting Environmental Stewardship and Sustainability for all through its accomplishment in satisfying requirements in the following key objectives within this goal statement:

Encouraging the stewardship of Aurora's natural resources: Assess the merits of measuring the Town's natural capital assets.

### ALTERNATIVE(S) TO THE RECOMMENDATIONS

1. To increase the frequency of EAB Treatments using TreeAzin as recommended by the product manufacturer which would result in a 50% increase in the costs.
2. To discontinue EAB Treatment with TreeAzin and substitute with the potentially more effective product IMA-JET pending MOE approval of public notification process.
3. Suspend all further Ash tree treatments and allow the remaining Ash trees to expire. Staff is not in favour of this option at present as it may be premature to do so until a full evaluation of the year one treatment results can be conducted.
4. Further Options as required.

### FINANCIAL IMPLICATIONS

#### TREEAZIN TREATMENT PLAN

Current annual cost To treat 50% of tree inventory based on biannual treatment	Revised Annual Cost Based on Manufacturers Recommendations	Cost Over 10 Year Treatment Plan Using TreeAzin
<b>\$106,000</b>	<b>\$212,000</b>	<b>\$2,120,000</b>

### IMA-JET TREATMENT PLAN

Annual cost to use IMA-JET Based on treating 100% of the tree inventory	Total annual cost	Cost Over 10 Year Treatment Plan using IMA-JET
<b>\$114,000</b>	<b>\$114,000</b>	<b>\$1,140,000</b>

### CONCLUSIONS

Staff review the effectiveness of the EAB Treatment Program and the overall health of our remaining Ash tree inventory and report back to Council on the matter including further recommendations on continuing to treat Ash trees. Approval be considered for another potentially more effective and less costly treatment alternative using IMA-JET for the annual treatment and control of EAB.

### PREVIOUS REPORTS

PR12-017 May 1, 2012 Emerald Ash Borer Recovery Plan  
 PR13-011 April 2, 2013 Emerald Ash Borer (EAB) Recovery Update Report  
 PR14-009 March 4, 2014 Emerald Ash Borer (EAB) Treatment for Ash Trees  
 PR14-038 August 12, 2014 Purchase Order Increase for Emerald Ash Borer (EAB) Treatment

### ATTACHMENTS

None.

### PRE-SUBMISSION REVIEW

Executive Leadership Team Meeting, Thursday, May 23, 2015.

***Prepared by: Jim Tree, Parks Manager- Extension 3222***

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**Allan D. Downey**  
**Director of Parks and Recreation Services**

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**Neil Garbe**  
**Chief Administrative Officer**