



Greenspace Alliance of Canada's Capital

Alliance pour les espaces verts dans la capitale du Canada

EAB POSITION PAPER - SAVING OTTAWA'S ASH TREES

Proposed Emerald Ash Borer (EAB) Strategy

The Greenspace Alliance of Canada's Capital is proposing that the City of Ottawa do the following:

1. Declare an immediate moratorium on all Ash tree cutting on City property, except when public safety is a factor;
2. Ensure that Ash tree conservation is identified as the City's first priority, thus saving as many Ash trees as possible, by bringing to bear the most current pest management research on EAB, that indicates an urgent need for biopesticide¹ injections to preserve trees until natural biocontrols such as parasites become established in Ottawa;
3. Using objective and transparent criteria and methods, assess all urban Ottawa Ash trees to see if they are candidates for treatment with TreeAzin. Engage in broad communication with residents on the tree assessments according to the criteria;
4. Immediately initiate additional outreach and meaningful consultations with community associations, relevant interest groups and the general public, and institutions, to develop and implement an integrated strategy for Ash trees on public and private property.

It takes minutes to cut down a tree; but many decades to grow it

The City of Ottawa is facing a looming economic and environmental crisis as a result of the increasing numbers of the Emerald Ash Borer. The imminent, potential loss of hundreds of thousands of Ottawa's Ash trees, including the vast majority of those on City-owned property, could make the tree damage from the 1998 ice storm pale in comparison, and already some streets and parks are being devastated. Unlike the ice storm, thus far there is no offer of help from the federal or provincial governments.

The City needs to act now, or taxpayers will be facing costs in the range from \$75,000,000 to \$100,000,000 to remove and replace a major part of our tree canopy on City lands. We will also have an uglier, hotter and less healthy city for the foreseeable future, when these trees that beautify our streets, grace our neighbourhoods, shade our parks and clean our air are cut down by the City.

This paper was prepared by the Emerald Ash Borer Working Group of the Greenspace Alliance of Canada's Capital. For more information, please see:

www.greenspace-alliance.ca/eab

www.facebook.com/saveourashtreespreservonsnosfrenes

¹ TreeAzin - Trees Saving Trees; BioForest Technologies Inc. www.bioforest.ca

Background

Ash trees represent 25% of Ottawa's urban tree cover, including 75,000 trees on City of Ottawa property.² Cutting most of them down will have huge economic, aesthetic and environmental impacts.

Emerald Ash Borer was first observed in Ottawa in 2008 and a strategy to deal with the problem was approved by City Council that year, which focused almost exclusively on containment efforts, particularly tree cutting, which has proven to be ineffective. This strategy has not changed significantly over the years, despite important advances in EAB science. Some neighbourhoods, like Elmvale Acres, have already been significantly affected, and will wait many years for regrowth of their mature tree canopy. While the City cannot replace the mature trees that have been cut down along many streets, it is not too late to press the 'pause' button and properly evaluate the treatment option to save many more Ash trees. To date, the City of Ottawa has treated only 750 trees (1%), with plans to expand this by 1,500 trees (2%)³ this spring and summer. This insignificant rate of treatment will have a miniscule impact on the massive tree loss and the associated financial and other costs.

A New Management Approach is Needed

Other cities are rapidly recognizing the pending devastation with EAB, and are aiming to save large proportions of their Ash trees (see below). The City of Ottawa needs to implement an Adaptive Management approach immediately, based on up to date research. Concerted efforts in Canada and the United States have identified realistic management strategies. The summary presented below is based on dozens of new publications and the opinions of EAB experts.

The Need for a Comprehensive Evaluation and Treatment Plan: Ottawa City Forestry Services is to be commended for the aerial mapping survey undertaken last year and for its efforts in trying to keep ahead of EAB. However, it simply doesn't have the resources to respond to this emergency, given the number of Ash trees involved and the speed at which the infestation is spreading.

Forestry Services at Ottawa City Hall is severely under-resourced. It is recommended that Forestry Services be immediately allocated funds to bring in an independent consultant with expertise on EAB to work with City staff to develop a comprehensive evaluation and priority treatment plan. This will not only give badly-needed resource support to staff but it will help to allay any concern that some neighbourhoods will be given preference over others due to political pressure, or that there may be a conflict of interest if companies involved in removing trees are also involved in assessing them for treatment.

Strategies for treating Ashes in neighbourhoods where there are many Ashes will need to be comprehensive. The research into TreeAzin is based on treating isolated trees, or treating all of the trees in an area. Many of the city-owned trees are on people's property, with many other Ashes on private property, so community involvement will be critical in coordinating the treatment of most if not all of the trees in an area, in the same year.

The Economic Case for Treating Ash Trees

There are only two options – treat trees that are suitable candidates for treatment, or leave the vast majority of our Ash trees to die. With widespread EAB prevalence, waiting until the following year for trees not yet showing signs of decline runs the risk of severe decline or tree death later in the summer. Recent economic analyses in the USA and Canada show that treatment is the more cost-effective option, and homeowners can calculate it online, for themselves.⁴

Ottawa has treated, and plans to treat very few trees. This lack of a proactive and preventative approach has lead to a scenario where the City itself predicts that virtually all Ash trees within the City could be

² City of Ottawa Report to: Planning and Environment Committee and Council, October 7th 2008

³ Letter from David Barkley, Manager Forestry Services, City of Ottawa, April 24th, 2012

⁴ Natural Resources Canada Government of Canada. 2012. Canadian Forest Service : Ash Protection Model (CFS-APM). <https://g1fc72.cfsnet.nfis.org/mapserver/apm/index.php?lang=e&m=m>.

dead within 10-15 years; however, given the accelerating increase in infestation seen by the end of 2011, this period could well be much shorter.

Treatment Cost: The cost of treating a tree every two years with TreeAzin is approximately \$245 for a 40 cm (16”) diameter tree.⁵ Projecting the need for six treatments over 12 years, the cost would be no more than \$1,470. It is anticipated that the cost of the TreeAzin formulation will come down further, given that it has fallen by 35% in the last few years with increased demand. While the science is not conclusive, there appears to be general agreement in the research community that 12 to 15 years is a reasonable, conservative estimate of the period of time for EAB to be brought under control by natural biocontrols. These include non-stinging parasitoid wasp species that have been released in the US.

Removal Cost: According to the City of Ottawa, the cost of cutting down a 40 cm tree and replacing it is \$1,000,⁶ although \$1,500 is quoted by Oakville, and was determined by the NCC in 2010.⁷ This does not include the cost of disposing of the wood, nor does it include the cost of replacing a number of the newly planted trees that do not survive in today’s urban environment. It is reasonable to project then that the cost of removal is in the neighbourhood of \$1,200 to \$1,400, or roughly the same amount as treating the tree over 12 years. Treatment costs are spread out, while removal and disposal costs are immediate costs.

Wood Disposal Costs: During the longer EAB experiences in the U.S. and south western Ontario, there have been few opportunities to generate profit from wood, with most breaking even in terms of the cost of disposing of the wood. London, Ontario, attempted cost recovery by charging firewood cutters for residue but was not successful.⁸ The City of Ottawa put out a Request for Proposal (RFP) for the processing of 14,500 tonnes of Ash wood over 4 years, with an expected start date in June.

Dead Ash trees have limited value for high quality timber because they dry quickly. The greatest opportunities for recovering the highest value from Ash trees would come from cutting down live trees.⁹ It would, however, be completely unacceptable to most Ottawa residents to see live Ash trees cut down when there is a treatment option available.

Also, the huge numbers of Ash trees that will have to be cut down throughout southern and eastern Ontario over the next number of years are expected to add to the glut, further driving down prices even for good Ash wood. A logistical hurdle is that wood cannot be moved to unaffected regions for processing.

Impact on Homeowner Property Values: The loss of trees will have a significant direct financial impact on property owners. Independent research has quantified the impact of street trees on private property values, and has found it to be substantial. Street trees increase property values by at least 2.4%¹⁰ or, on average in Ottawa by \$8,400.¹¹ Another study shows that good tree cover in a neighbourhood increases housing prices by 6-9%.¹² By cutting down the majority of Ottawa’s Ash trees the City is erasing multi-millions of dollars in property values, and consequently City tax revenues.

Environmental and Health Benefits

In recent years a tremendous amount of research has quantified the economic benefits of trees and the ecological services they provide. Benefits include energy savings from shading and natural cooling,

⁵ Based on the two submissions received by the City in May 2012.

⁶ E-mail from David Barkley, Manager Forestry Services, City of Ottawa, April 24th, 2012

⁷ Invasive Species Control Program: presentation to the NCC’s Executive Committee in the fall of 2010.

⁸ London Ontario EAB Management Strategy Report, Community and Neighbourhoods Committee Meeting, September 27, 2011

⁹ Ibid

¹⁰ Donovan, G. and Butry, D. 2008. Market Based Approaches to Tree Valuation at [Donovan.hnri.info /pubs /arbnews_208_08.pdf](http://Donovan.hnri.info/pubs/arbnews_208_08.pdf)

¹¹ Based on average house price in Ottawa of \$350,000 in January 2012, according to Canadian Real Estate Association

¹² Kathleen L. Wolf, City Trees and Property Values. 2007. Arborist News 16, 4: 34-36. www.naturewithin.info/Policy/Hedonics_Citations.pdf

storm water run-off mitigation, air quality improvement and carbon dioxide reduction, not to mention overall quality of life benefits for communities and individuals.

The recent City of Ottawa Planning Summit heard transportation expert, Jeffrey Tumlin, identify trees as a key element in his speech on a “*Greener Ottawa: Seven Free and Low-Cost Steps Ottawa can Take to Leverage Rail Investments and Grow Healthier and Wiser*”. According to Tumlin, trees are an essential component in walkable and livable cities.

Trees Ontario recently published “A Healthy Dose of Green: A prescription for a healthy population”¹³ summarizing research on how trees improve air quality (e.g. reducing ozone, particulates, acid gases and volatile organic compounds), all of which are linked to prevalent chronic diseases.

Summary of Economic, Environmental and Health Benefits

The foregoing shows that the benefits of saving Ash trees greatly outweigh treatment costs, which in turn are less than cutting costs. Treating vastly more trees, even if only for 12-15 years, also provides time for natural biocontrols to become established, as well as to slowly transform the urban canopy and amortize costs of the EAB management over a longer period of time. Some communities are looking at treatment as a way to defer tree mortality and mitigate the public safety issue. Forward-thinking Cities are placing high values on green infrastructure that takes many decades to grow, and with care may last a hundred years or much longer.

Not cutting trees buys time for research to come up with new methods of EAB management. There is much work going on with natural pathogens, predators and parasites. In the USA, biocontrol species are becoming successfully established and are being bred for sales and release. We expect the same to happen in Canada, with native and eventually imported biocontrols. Thus, treatment represents a stop-gap measure, to maintain healthy trees until nature rebalances.

Most importantly, once a tree has been removed, so have all other options.

Where Do The Scientists Stand?

Independent expert organizations have endorsed preventive programs of pesticide injection rather than mass culling of trees. On January 6, 2011 the Coalition for Urban Ash Tree Conservation stated its policy of responding to EAB as follows:

“We the undersigned strongly endorse Ash tree conservation as a fundamental component of integrated programs to manage Emerald Ash Borer (EAB) in residential and municipal landscapes. Cost-effective, environmentally sound EAB treatment protocols are now available that can preserve Ash trees through peak EAB outbreaks with healthy canopy intact. Used in association with tree inventories and strategic removal/replacement of unhealthy Ash, tree conservation will help retain maximum integrity and value of urban forests. This integrated approach to urban EAB management is supported by university scientists with expertise in EAB management, commercial arborists, municipal foresters, public works officials, and non-governmental organizations (NGOs).”¹⁴

This policy statement was signed by independent scientists at Ohio State University, Michigan State University, University of Maryland, Purdue University and the University of Wisconsin.

Dr. Sandy M. Smith, Dean of the Faculty of Forestry at the University of Toronto, recently joined the Coalition. Dr. Smith is internationally recognized for her work in forest entomology, invasive species and biological control. Her advice has been sought by government agencies, NGOs and the forest industry on issues concerning forest health. Dr. Smith indicated “*I support the coalition because they are taking a comprehensive, planned approach to this looming EAB problem facing cities like Toronto.*”¹⁵

¹³ Trees Ontario. A Healthy Dose of Green: A Prescription for a Healthy Population. 2012. Toronto, ON. http://www.treesontario.ca/learn/index.php/a_healthy_dose_of_green.

¹⁴ Coalition for Urban Ash Tree Conservation, Emerald Ash Borer Management Statement www.emeraldashborer.info/files/conserv_eab.pdf

¹⁵ Emerald Ash Borer could decimate the urban forest, Mark Cullen, Toronto Star, March 16th 2012, <http://www.yourhome.ca/homes/article/1146638--emerald-ash-borer-could-decimate-the-urban-forest>

Experienced professionals are also joining the scientists. Mark Cullen, expert gardener, author and broadcaster, in a recent article in the Toronto Star raised the alarm of the urban decay that has increased in cities like Detroit and Cleveland where Ash trees are beyond saving. He recommends TreeAzin stating *“I have no interest in promoting the use of this product except for one thing: it has been proven to work and it provides the only solution to a pervasive and current problem.”*¹⁶

What Are Other Communities Doing?

As people in Ontario are seeing firsthand the rapid, devastating impact that EAB is having on their communities, there is an increasing demand for greater public consultation along with pressure for adaptive management approaches that use the most current science and ‘best practices.’ Other cities with much less to lose, with Ash tree coverage of 10% or less, are significantly revising their approaches. Ottawa has even more at stake in addressing this emergency, with 25% Ash tree coverage, yet plans to inject only an additional 1,500 trees, a mere 2% in 2012.

Oakville worked with Canadian Forest Service, the Ontario Ministry of Natural Resources, and BioForest Technologies Inc. to develop the most extensive Ash treatment program in Canada, injecting over 75% of its treatable municipal Ash canopy and carrying out an expanded inventory program along with research partnerships.¹⁷ Oakville has approximately 14,000 municipal street and park Ash trees of which they plan to protect about 5,700. They are intensively looking at options for managing an additional 42,000 or so Ash in woodland areas.¹⁸

Burlington, Ontario, recently announced that it will substantially increase its treatment of city-owned Ash trees with a diameter larger than 20 centimeters. Roughly half of the targeted Ash trees, or approximately 3,500 trees – will be injected this spring with the remainder treated next year.¹⁹

Involving the Public and Community Organizations

Emerald Ash Borer surfaced in Ottawa in 2008. On October 7th, 2008 a report by staff to the City’s Planning and Environment Committee identified public consultation/outreach as an integral component of the City’s EAB strategy.²⁰ This included Workshops, Education Materials, Community Outreach and Stakeholder Awareness. While the City has consulted with other government agencies and the private sector, there have been no meaningful consultations with the majority of community associations and other public interest groups since the issue came to Council four years ago.

We have heard from many residents that they have had no response from city staff, with questions remaining unanswered, that residents were informed about trees on their street only after they were cut down, that trees cut during the winter had been alive in the fall, and the highly exaggerated treatment costs reported by city staff in the media.²¹

Rather than consult meaningfully with the citizens, the City scheduled two public information sessions in 2012. These occurred only after many hundreds of trees had already been taken down, and were not consultations in that they did not provide a presentation and an open forum for dialogue with questions and answers to be heard by all. Thus, it was not surprising that few people attended these sessions.

It is critically important for the City to take a lead, and to involve the public in meaningful ways. Emerald Ash Borer represents a major challenge that will have huge, long term impacts on City taxpayers and property owners. To meet this challenge, all Ottawans must act in concert, including the City, the NCC, and all other property owners from large institutions to private homeowners.

Ottawa residents place high values on trees and green space, and many would welcome taking on a positive stewardship role in what will be a hugely challenging campaign. The City needs to reach out to

¹⁶ Ibid

¹⁷ Personal correspondence with Joe Meating, President, BioForest Technologies, April 2012

¹⁸ Ibid

¹⁹ Personal conversation with Rick Lipsitt, Burlington City Forester, May 7, 2012

²⁰ City of Ottawa Report to: Planning and Environment Committee and Council, October 7th 2008

²¹ Ottawa Citizen “Cutting Ash trees without consulting public unacceptable some residents say,” April 20, 2012

the community, relaying accurately the extent of the crisis, and asking for active public participation and support. This should be aimed not only at individual residents but also at community associations, environmental organizations, condominium corporations, school boards, businesses and park visitors – anywhere there are Ash trees that can be saved if we act in time.

Merely directing people to the City's or Distributor's websites and expecting them to take action is not sufficient. It is in the City's best interest to develop urgently a true partnership with the community in responding to EAB. This can be demonstrated by the City in negotiating bulk discounts for treatment applications for residents and investigating other incentives such as tax rebates and/or the provision of charitable receipts to encourage residents and organizations to 'adopt' trees in their neighbourhood.

Summary

The options are clear. Treat now to save a large number of our Ash trees, or wait and based on 2011 trends see about a quarter of Ottawa's urban tree canopy die within the next few years. Dead and dying Ash trees become brittle, and will have to be removed due to the public safety hazard. We maintain that the cost of waiting, removing and replacing the dead trees could be very high and unnecessary, as well as resulting in poorer health and quality of life for citizens, reduced homeowner property values and City revenues, and a dramatically changed and much poorer landscape in Ottawa. It would be a sad legacy of this City Council to allow the demise of Ottawa's Ash trees.

On the other hand, if the Mayor and Councillors turn this major challenge into an opportunity, there may well be a silver lining. As the community becomes part of the solution, people will come to have a greater appreciation for our natural resources, and the role that they can personally play in preserving these valuable assets.

May 24, 2012