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Shell Type = use for Miscellaneous Reports

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TO:	CHAIR AND MEMBERS PLANNING AND ENVIRONMENT COMMITTEE MEETING MAY 1, 2012
FROM:	J. M. FLEMING DIRECTOR, LAND USE PLANNING AND CITY PLANNER
SUBJECT:	LONDON'S EAB STRATEGY AND ISSUES RELATED TO TOBIN COURT

RECOMMENDATION

That, on the recommendation of the Director of Land Use Planning and City Planner:

- i. the following report **BE RECEIVED** for information;
- ii. that the current moratorium relating to Emerald Ash Borer –related tree removal **BE LIFTED**;
- iii. that Staff **BE DIRECTED** to continue with the implementation of the Council-adopted Emerald Ash Borer Strategy

PREVIOUS REPORTS PERTINENT TO THIS MATTER

- Impact of Service Review Committee 2012 Funding Recommendation of the Emerald Ash Borer Strategy and million tree challenge February 9, 2012
- Report to Service Review Committee, November 22, 2012, Emerald Ash Borer 2012 Business Case tree replacement option implications and Management Strategy cost recovery options from wood utilization - November 17, 2011
- Council Resolution – October 3, 2011
- 8th Report of the Trees and Forests Advisory Committee – September 28, 2011
- 16th Report of the Community and Neighbourhoods Committee – September 27, 2011
- 22nd Report of the Committee of the Whole – June 21, 2011
- Emerald Ash Borer Update - Report to the ETC - July 19, 2010
- 2nd Report of the Trees and Forests Advisory Committee - February 25, 2009
- Emerald Ash Borer Strategy - Report to the ETC - May 26, 2008
- Emerald Ash Borer Update – October 15, 2007
- Trees at Risk Report to ETC – September 12, 2005.

BACKGROUND

Actions Taken to Respond to Emerald Ash Borer in London

- 2002 EAB identified in Windsor and Detroit.
- 2005 report to ETC that EAB was an imminent threat. Recommendation that strategy and actions plans be developed when the insect is detected in conjunction with Canadian Food Inspection Agency (CFIA) who is mandated to manage the infestations.
- October 2006 EAB first identified in London just south of Spingbank Park. EAB quarantine zones established in London by CFIA.
- 2007 other infection sites identified in Masonville and east end of City; Almost entire City under quarantine; City/Canadian Forest Service (CFS) inject trees in Springbank Park with TreeAzin in support of pesticide registration; City and CFIA negotiate the

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establishment of EAB processing yards so residents can move wood despite the quarantine zones; Preliminary management strategy developed.

- 2008 First trees injected with TreeAzin even though it was only registered for research purposes; Special EAB planting budget established and planting vacant spots within neighbourhoods with a high proportion of ash trees; EAB management strategy developed that included a combination of detection, removal of severely infested trees, tree injections, replanting and public education.
- 2009 Letters from the Mayor to Minister Ritz of CFIA, Association of Municipalities of Ontario and Federation of Canadian Municipalities requesting; No municipal support, funding or otherwise, by the agencies was provided.
- 2010 report to ETC identifying that the EAB infestation had greatly increased in size and impact and that a more aggressive treatment and removal strategy would be required. This report included the need to remove trees that were not yet dead.
- 2011 Current EAB strategy developed and approved.
- 2012 is the first year since EAB was recognized as a serious threat that additional funding has been specifically allocated for activities other than tree planting to manage EAB.

Current EAB Strategy

- The July, 2010 report to ETC (endorsed by Council) for the development of a revised strategy concluded that:
 - The existing EAB strategy needed to be revised and it should include a more proactive and aggressive approach to EAB monitoring, tree protection, tree removal and replanting;
 - Future funding for management should be requested based on the recommendations of the revised EAB strategy;
 - The current limited amount of staff resources for monitoring as trees would continue, and;
 - Staff should remove ash trees as they are encountered during the regular pruning cycle as a proactive and interim steps towards removals on a larger scale as the infestation increases over time, but only if the trees are visibly, badly deteriorated or pose a safety risk.
- A Request For Proposal (RFP) was solicited in summer of 2011 to develop an EAB management strategy to deal with the current and future levels of infestation.
- The Trees and Forests Advisory Committee (TFAC) provided input into the terms of reference for the project and provided review comments to Council.
- The terms of reference for strategy included:
 - Review of current knowledge and Best Management Practices and strategies employed by other municipalities
 - Assessment of current infestation
 - Detection methodologies
 - Protection options and costs
 - Removal Options and costs
 - Replacement Options and costs
 - Management of EAB on private property
 - Public Education
 - Research opportunities
 - Long- term management options
 - Preferred approach
- Following the Purchasing By-law and guidelines, the RFP was awarded to Davey Resource Group.
- A presentation to the Committee of the Whole was made indicating that London was at a critical point in the management of EAB, that EAB was now significantly impacting a large number of trees across the City and that additional funding would be required to deal with the exponential increase in mortality.
- The EAB Strategy was presented to Community and Neighbourhoods Committee on September 27, 2011. It was accepted and subsequently endorsed in principle by

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Council. Funding of the Strategy was forwarded to the Services Review Committee for consideration.

EAB Management Budget

- The recommended budget to implement the Strategy for 2012 was \$1.2 million.
- The approved EAB budget for 2012 includes \$400 of “new” funding for EAB, \$443 from existing EAB tree planting funding, additional \$50K from woodland management funding and \$40K from street tree planting programs.
- This level of funding allowed sufficient funding for removals and a replanting at a replacement ratio of 1.5 trees for every tree removed.
- This level of funding does not support the program coordination and public communications component (\$100K) identified in the Strategy.
- TFAC recommended the initial recommended funding of the Strategy which supported a minimum 2:1 replanting ratio. They did not support reassignment of planting funds for other activities or a replacement ratio of 1.5:1.
- This level of funding significantly impacted existing programs and was not sustainable for 2013. Budget requests for additional funding for 2013 and beyond will be submitted in 2012.

Table 15. Total Estimated EAB Strategy Costs (in thousands of dollars)

Year	Injection Treatment	Removal (Streets and Manicured areas)	Removal (Wooded Park Areas)	Inventory and Survey (Wooded Park Areas)	Risk Inspections (Wooded Park Areas)	Restoration and Rehabilitation (Wooded Park Areas)	Plant 2:1 (Streets and Manicured Areas)	Coordinator (Administration, Education)	Total Costs
2012		184	145	50			715	100	\$1,194
2013	109	187	145	50		30	751	100	\$1,372
2014		191	145		20	30	828	100	\$1,314
2015	115	195	145		20	30	828	100	\$1,433
2016		199	145		20	30	869		\$1,263
2017	122	203	145			30	912		\$1,412
2018		207	145			30	1,007		\$1,389
2019	130	211	145			30	1,005		\$1,521
2020		215	145			30	1,056		\$1,446
2021	137	219	145			30	1,108		\$1,639
2022									0
2023	146								\$146
2024									0
2025	155								\$155
Total	914	2,011	1,450	100	60	270	9,079	400	\$14,284

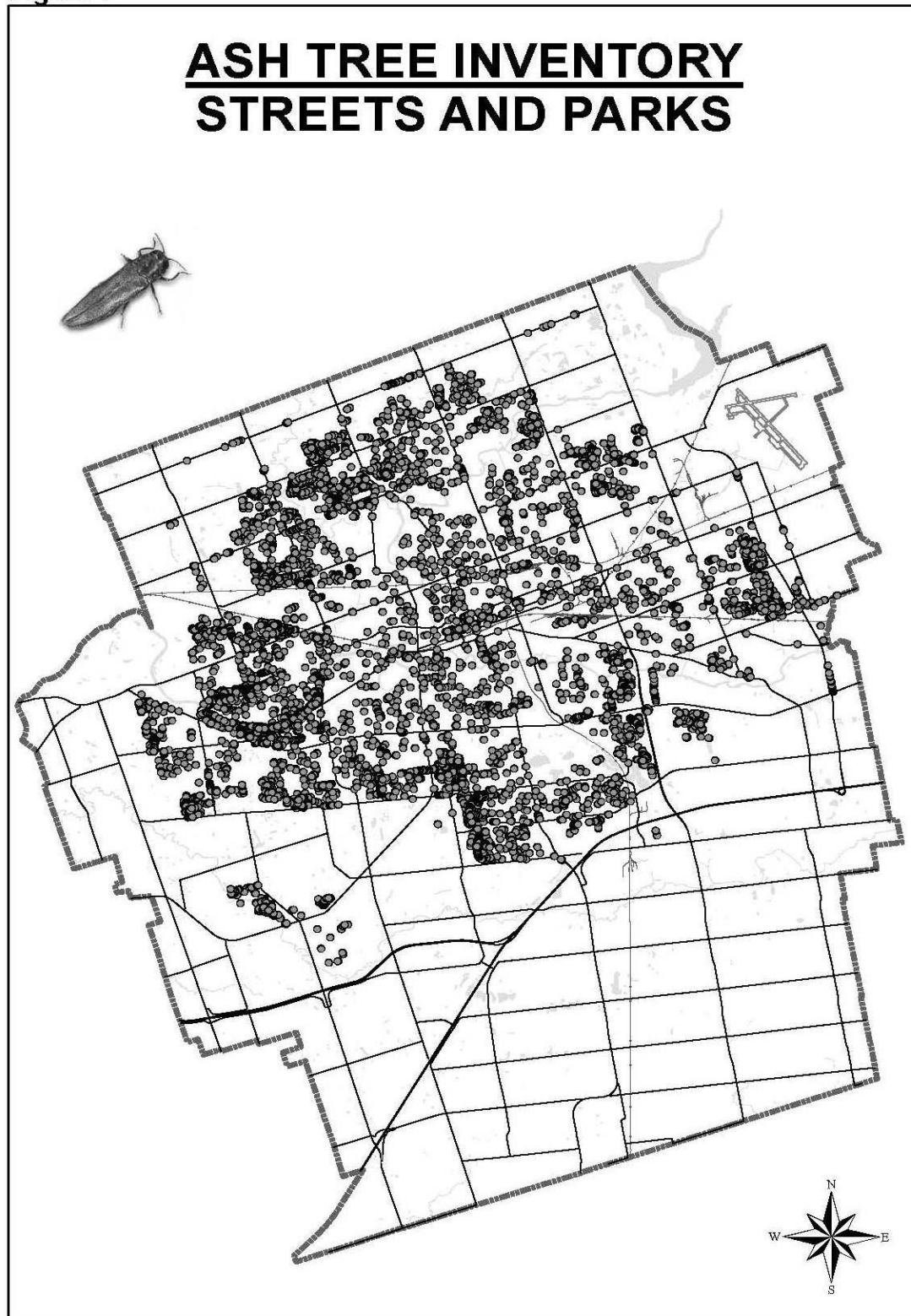
What is London’s EAB Strategy

London’s strategy is an integrated approach that includes the elements identified in the terms of reference above. It includes an inventory of existing ash trees and an assessment of their conditions and options based on tree size and condition.

1. Treatment with TreeAzin

A map showing the distribution of ash trees across the City (Figure 1) is shown below.

Figure 1



A City-wide sampling of ash trees was conducted in winter 2011 to identify the extent of the current infestation. This included a combination of a new sampling technique called two branch sampling and visual assessment of infection. A map showing the areas where two branch sampling was conducted and is shown below.

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Figure 2



- Best management practices for minimum size criteria vary by jurisdiction. They recognize that there are limited EAB options, that infestations vary considerably across the landscape and there is no one single, best method or process to manage in every municipality. The industry standard practice is to only inject trees >25 cm diameter in good condition. The theory is that a smaller tree can incur bark splitting and injection site damage. Additionally they are cheaper to remove and replace, allowing a healthy

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tree to be established sooner which will be almost the same size at the end of an injection period (10-15 years). Some municipalities, such as Oakville, use a minimum of 20cm diameter while others such as Richmond Hill use a minimum of 50cm diameter. The average size tree injected is approximately 30cm diameter (Joe Meating, BioForest Technologies Inc., personal communication).

- London’s criteria for injections included potential ash trees >25 cm in diameter and in excellent and good condition based on 2002 inventory information. Some larger trees that were in fair condition were considered as candidates in certain cases. Candidate trees were visually inspected along with Two Branch Sampling survey info to determine health condition. Trees with extensive damage, high EAB activity, >25% crown decline were not accepted.
- Approximately 79% of the ash trees are below the recommended treatment threshold diameter of 25 cm. They are too small to treat and it is more cost effective in both the short and long term to remove them and replace them with alternative species. This is supported by studies in the US and other municipalities such as Oakville.
- Only about a quarter of the potential trees, based on 2002 information, were actually suitable candidates in 2011 and those are the ones we treated.
- The number and size of potential candidate trees varied across the City.
- Some areas had more trees injected because there were more candidate trees identified.
- Staff made every effort to distribute the injections across the City.
- Funds from existing programs (\$112K) were reassigned to fund the injections as there was no specific capital funding budgeted in 2011 for this purpose.
- Trees that were treated are marked with metal tags and entered in the City’s inventory system for future identification.

The distribution of initial potential candidate trees and those injected are shown below in Figure 1.5 and Figure 3 respectively.

2. Removals

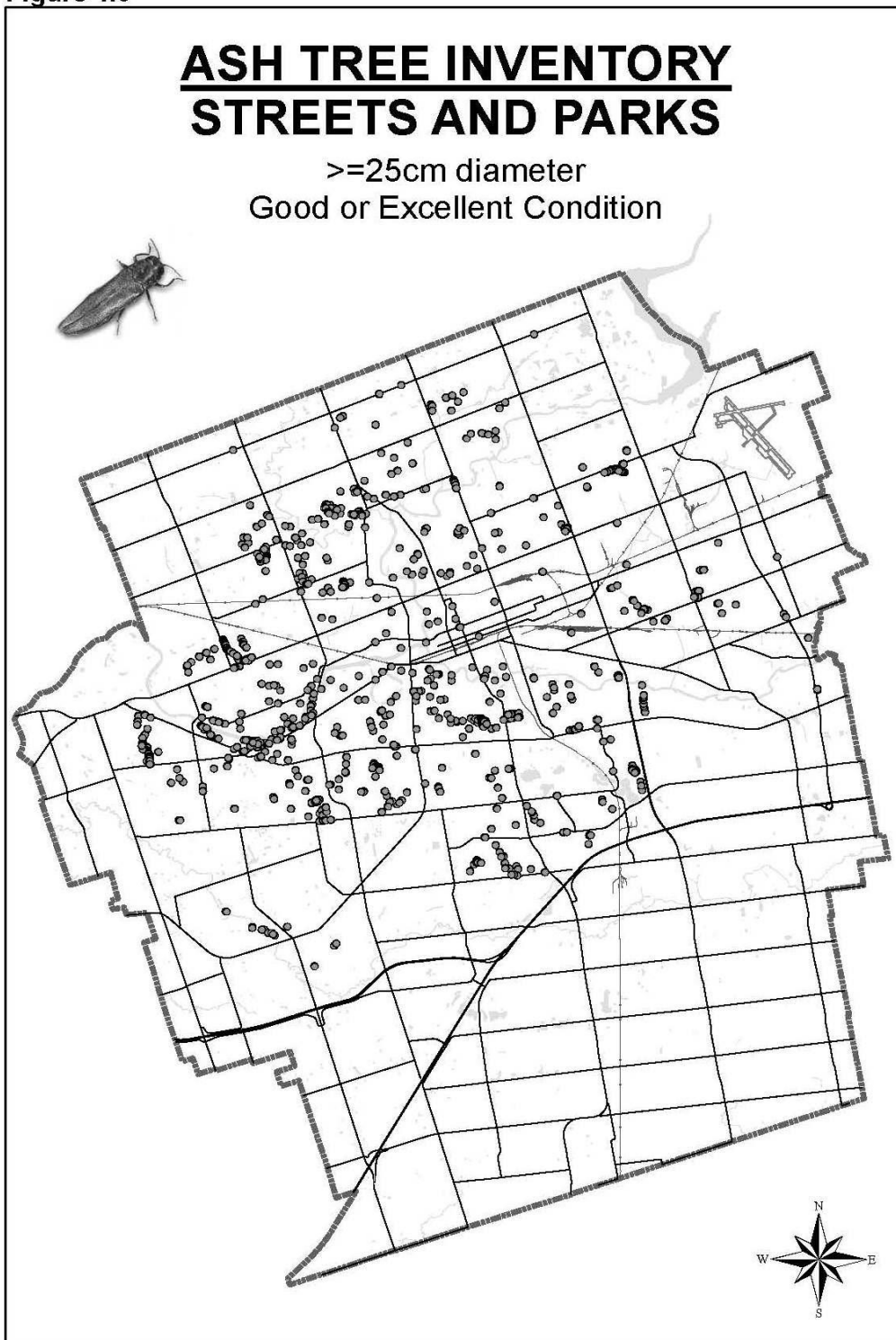
- The report to the Community And Neighbourhoods Committee (September, 27, 2011), clearly indicated that the recommended EAB management strategy includes “...proactive removal of some live trees to allow for the more orderly, efficient and cost effective removal and replanting programs”. The Strategy, including these measures, was subsequently endorsed by Council.
- The Strategy assessed the pros and cons of removal options such as removing trees proactively on a block by block basis as well as on a selective removal as trees die.
- Selective removal was an option in the EAB strategy but not the recommended approach because of cost and operational constraints due to the existing EAB outbreak.
- Selective removals can be twice as expensive because crews must set up and take down equipment more often. Additionally there are administrative costs associated with surveying, monitoring the annually and working going to the same area many times for just a few trees.
- The EAB strategy endorsed by Council is a systematic removal over time is so that there is not a “Wall of Dead Wood” that must be addressed in the future when liability is much higher, removal costs are higher and there may not be sufficient funds available to deal with the removals without severely impacting services.
- Removal of dead trees is more costly because the wood dries out very quickly after it dies. The trees and limbs become brittle when they die. This makes them more dangerous for staff and contractors trimming or removing them. Additionally clean up costs and potential damage to nearby cars and buildings increase because the brittle wood shatters when it hits the ground.
- If we wait until the trees are dead before they are removed there will also be significant damage claims and lawsuits due to damage from broken limbs and fallen trees that could have been prevented.

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- The city of Midland, Michigan, did not remove their infested ash trees and within four years had to increase their maintenance budget from \$12,000 annually to over \$2million. They had to take funds from street paving, water and sewer projects and parks just to remove the dead wood.
- Managing all the ash trees on a street at the same time allows us to replant the street quicker.

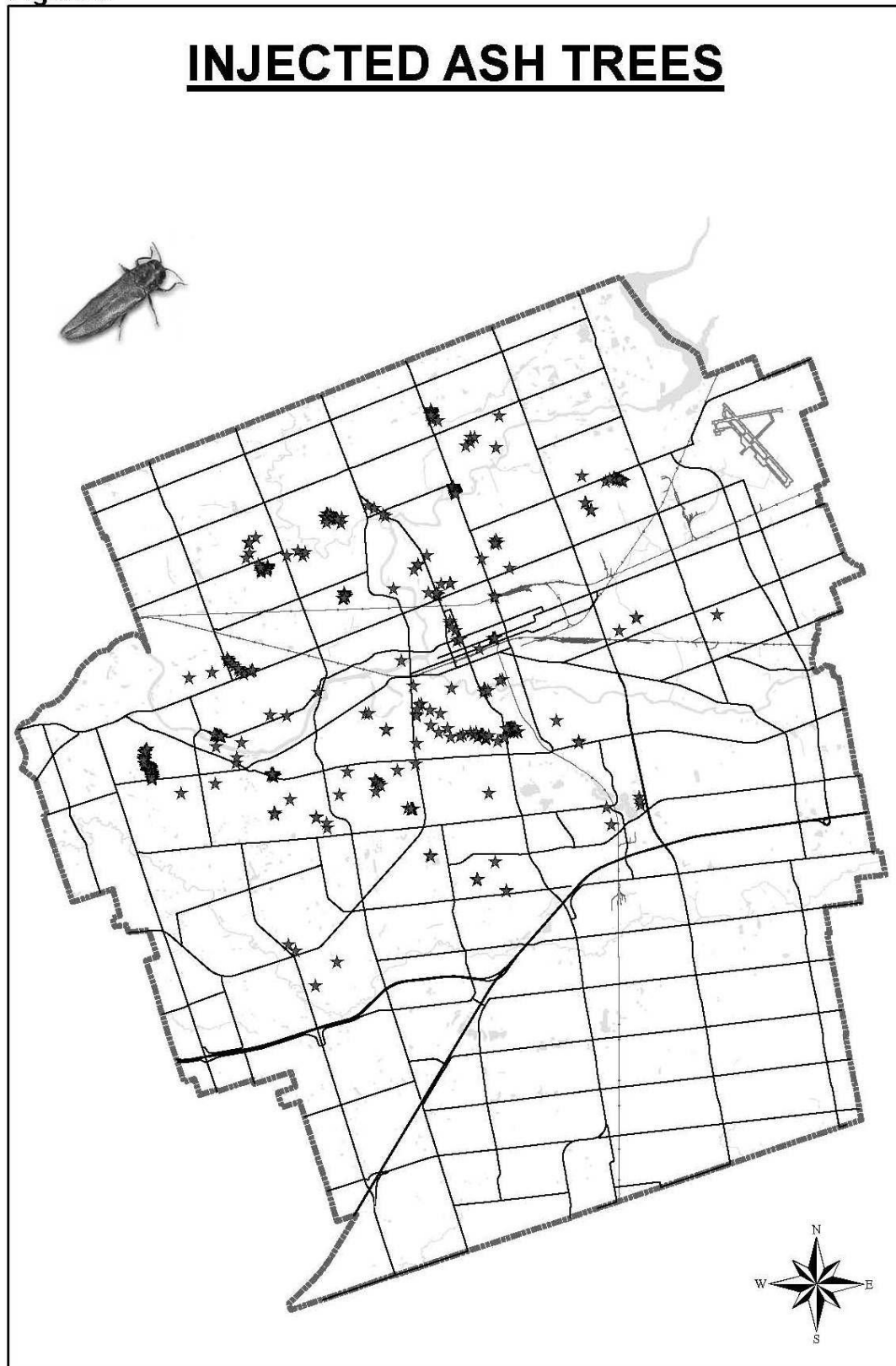
Figure 1.5



- Trees that do not meet the criteria for treatment and are infested are scheduled for removal in a planned and systematic manner. Some neighbourhoods may have more

ash than others and those trees may be in various stages of infestation. None the less, we know that EAB is all across the City.

Figure 3



- Healthy trees are not removed. A tree may appear “healthy” because it may not show a lot of crown dieback or have the characteristic D-shaped exit holes readily visible at eye level. That does not mean that tree is not severely infested – just that those symptoms

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are readily apparent yet. A tree can progress from looking 'healthy' to dead in two to four years.

- Once EAB is detected in one tree, most of the other trees are also already infested and dying.

The following map (Figure 4) shows the neighbourhoods where planned removals have already occurred or are scheduled this spring.

Figure 4



3. Communications

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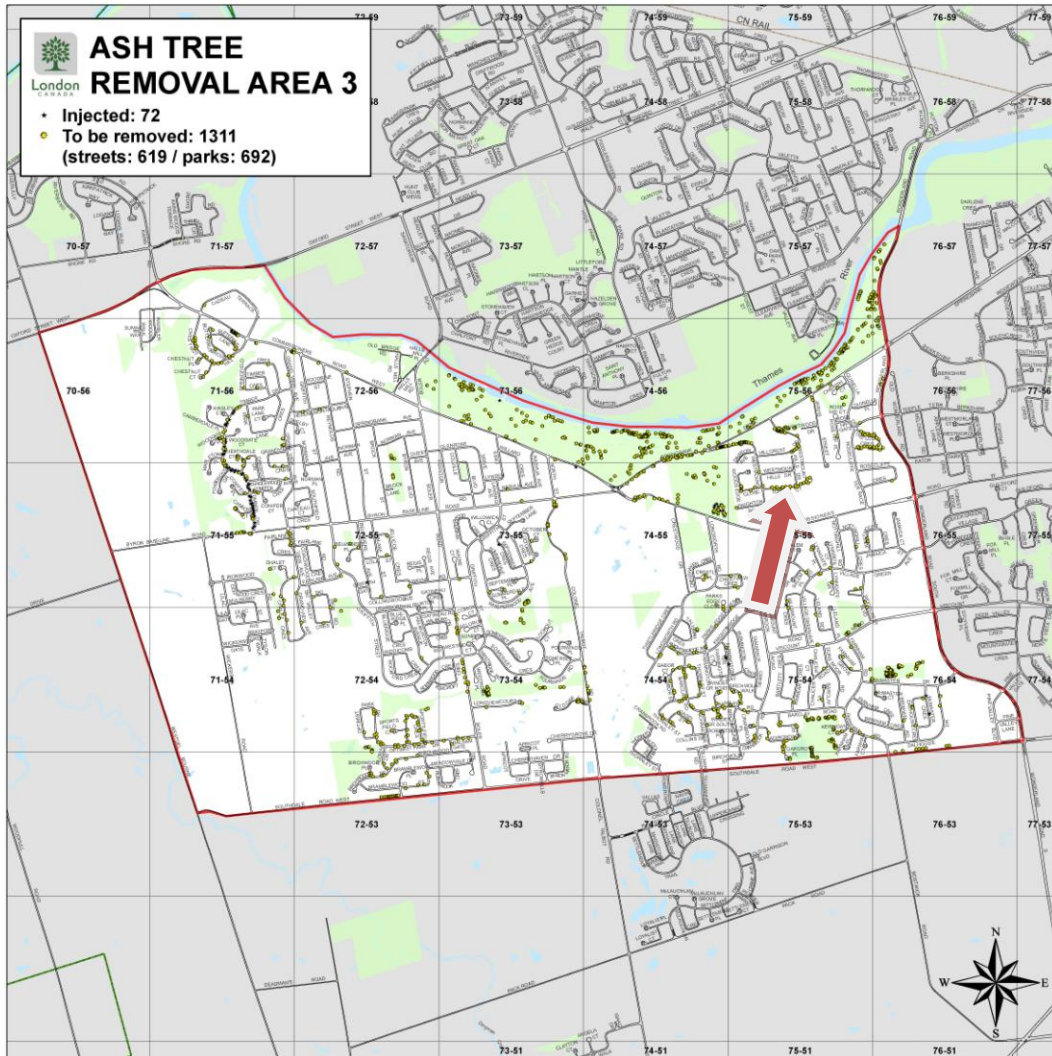
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- The EAB Communication and Administration funding (\$100k) to manage the increased workload associated with implementing the EAB strategy was not funded for 2012.
- Existing staff resources and reallocation of existing funds are being used to support his year's program.
- Winter weather conditions precluded neighbourhood walks with Forestry staff, Councillors and residents like those that were done last fall in some heavily impacted neighbourhoods. Therefore several other communication and notification methods were used to reach out to all the affected neighbourhoods and residents.
- The City mailed out over 38,000 letters in December to all households where removals were scheduled this spring, including all the residents in the Tobin Court area.
- The information included two operational information meetings (January 4th and January 6th) to outline the program and who to contact to get additional information.
- The letters included links to our EAB website.
- The letters identified a follow-up general EAB information public open house (January 28th).
- There was also additional similar information on the City's website, Facebook and Twitter.
- Approximately 65 people attended the meeting at the Byron Optimist Center and 55 at at the Earl Nichols Arena.
- Media coverage at the time included CTV and front page news.
- Staff have also met with Westmount Hills Residents Association representatives on March 14.
- An additional EAB information open house was held in the Stronach Community Center on April 14 which attracted approximately 150 residents.
- Forestry staff were also at the Home and Garden Show with information and to answer any questions about EAB from April 20-22.

The following map of the removals and injections in the Tobin Court area, which was provided at all the operational and information public meetings and open houses. Residents had the opportunity at those to meetings to learn about the 2012 program and the plan for individual trees.

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4. Replanting

- The EAB management strategy, endorsed by Council, included a replacement ratio of 2 trees for every one removed.
- The approved budget allows for a maximum of 1.5 trees planted for every tree removed.
- The approved budget does not allow for additional support staff to manage an increased planting program.
- The replanting ratio does not imply that there will be 1.5 trees planted in front of the same house where the tree was removed.
- There are other considerations that are used in determining which trees are planted and where. Some of these include type of soil, site conditions, growing space, species availability from nurseries, and operational logistics.
- This spring staff are planting @3,000 trees – this is the most aggressive planting in memory as @2,500 trees are typically planted all year!!
- Due to operational and administrative support constraints, individual requests for tree species may not be accommodated or that we may be able to plant 1.5 trees for every one removed due to site conditions.
- We try to accommodate individual requests when possible, however, we cannot guarantee either their preferred species or a minimum size tree.
- Tobin Court will be planted this spring.

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Issues Raised by Residents of Tobin Court

- Removals on Tobin Court started during the first week of March.
- Issues raised by residents included:
 - The City did not provide sufficient notice to residents of the removals;
 - Plant in spring 2012;
 - Planting a minimum of 1.5 trees for each one removed;
 - Consult with residents on tree species to be planted;
 - Injecting the remaining “healthy” tree on Tobin Court;
 - Potential conflict of interest between the firms hired by the City to help develop the Strategy and complete the removal.
- A follow-up meeting with representatives from the Westmount Hills Residents Association, Councillor Van Meerbergen, John Braam, John Parsons and Ivan Listar was held on March 14, 2012.
- All the issues were addressed by staff:
 - Residents were provided with two months notice and had several opportunities and venues to obtain information about the removals and other details of the EAB strategy;
 - Tobin Court will be planted in spring 2012;
 - Due to staffing and resource limitations, in the letter that was sent to all residents and at the public meeting, the City made commitment replant one tree for every one removed if the site was suitable in spring or fall 2012. This was because the final budget and replanting rate had not yet been approved by Council. We will try to plant more trees than the number removed as site conditions permit and within our planting guidelines. This is the first season with an increased replacement ratio. Residents need to recognize that planting stock is scarce and we need to ensure that that the city can replant at least an equal number of trees removed until we can ramp up the program to desired and funded levels;
 - Staff offered to take requests for trees. We cannot this service to all residents across the City with existing resources and only when planting volumes are low;
 - Residents stated that an independent arborist inspected the tree and claimed that it was “healthy”. Following a request by residents, staff provided them with branch samples the same day showing that the tree was not “healthy” and was actually already infested with EAB. The tree will be monitored once it is leafed out to determine if it still meets the injection criteria;
 - There was no conflict of interest. The purchasing by-law was followed in the award of the development of the strategy and the implementation of the removals. This was confirmed by Purchasing Division. Davey Resource Group, who developed the Strategy under the direction of staff and is a separate, independent company from Davey Trees Service who do **BOTH** the removals and injections for the City.

Addressing Issues Raised by Westmount Hills Residents Association at the PEC Meeting

1. London’s Aggressive Management (Removal) Strategy

- The extent of the outbreak and its impacts have increased exponentially since 2006.
- The City did adopt a selective removal policy since 2005 and recognized that a more aggressive approach would be required.
- The current strategy was endorsed by Council.
- There are no outside sources of funding such as from the federal or provincial governments so the EAB management program is funded solely by residents of London.
- The strategy provides for an orderly and efficient removal program over a period of years, recognizing the budget and resource constraints, as not to severely affect the impact on the budget and tax base in the future.
- A “Wall of Wood” in the future will pose significant financial and implementation issues in the future.
- Few trees meet the best management practices as candidates for injections either for size or condition.

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2. Policy ignores the benefits of trees

- This statement is incorrect. The strategy does recognize the importance and benefits of trees.
- In fact the strategy includes information about the importance of ash trees and the impacts of EAB from London’s UFORE analysis on page 16.
- The same information was presented to various Committees and Council in the past.
- The best management practices for tree injection also recognize tree size in the evaluation criteria for treatment.

3. Coalition for Urban Ash Conservation endorses preventative programs

- Staff concur with the Coalition’s statement and included their statement as a support document in the Strategy.
- Their recommendations include the use of inventories, strategic removals and replacement.
- The Coalition is based in USA where federal and state governments have provided financial and other support to municipalities to manage the EAB. This is not the case in Canada where municipalities do not get similar funding.
- Their statement recommends that treatment is most appropriate when EAB has been detected within 15 miles of an area and is most effective when applied before the trees are infested. EAB has already infested trees throughout the City.
- There are more treatment options and chemicals available in the USA which are not registered for use in Canada.

4. Negative Impact on Property Values

- The City recognizes that there will be significant aesthetic impacts in many neighbourhoods.
- Removed trees will be replanted as soon as possible depending on tree availability, funding and resources.
- An enhanced replanting program with a higher replanting to removal ratio with a variety of species will speed up the replacement of leaf cover and property values.

5. Other Organizations have adopted a more moderate approach

- The development of London’s EAB strategy included a comprehensive review of other municipalities’ approaches.
- Strategies from Windsor, Ottawa, Toronto, Oakville, Hamilton, Toledo, Milwaukee, Grand Rapids and Fort Wayne are summarized on pages 8-12 of the Strategy.
- An additional review of municipalities’ approaches was conducted by Richmond Hill in 2011 and is summarized below. The information from London is outdated.

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Table 1. EAB Management Strategies of various Ontario municipalities

Municipality	Management Strategy Status	Pesticide Treatment	Funding Allocated for EAB Management
Markham	No formal strategy/plan.	No treatments anticipated	\$5.5 M cost anticipated 2012–2014 and \$4.5 M cost anticipated 2015–2018
Vaughan	Approved in 2011	No treatments anticipated	No funds specifically requested for EAB management to date. 2012 funding request anticipated.
Toronto	Approved in 2011	Treatment of approx. 550 high value ash trees (mostly on municipal golf courses)	\$1.1 M allocated for 2011 (90% of funding is for removal of 1,350 trees)
Ottawa	Approved in 2008	Treatment of high value park ash trees (220 trees injected in 2009)	\$300,000 allocated in 2009 (\$50,000 specifically for communications), \$450,000 in 2010.
Hamilton	Approved in 2010	Treatment of approx. 400 high value park and cemetery ash trees	\$250,000 allocated for 2011. Estimated 10 year cost forecast of \$36 M.
Richmond Hill	Pending approval	Treatment of approx. 1725 trees predominantly on streets	\$491,000 to be requested for 2012. Anticipated 10 year cost forecast of \$12 M
London	Approved in 2011	Treatment of high value street and park trees. 300 ash trees treated through preliminary pilot project	Anticipated 2012 budget request of \$750,000. Anticipated 10 year cost forecast of \$7 - \$10 M.
Burlington	Approved in 2010	Treatment of approx. 5150 street trees and park ash trees 20 cm DBH and larger	\$194,000 allocated in 2011. Estimated 10 year cost forecast of \$11 M.
Oakville	Approved in 2009	Treatment of all street and park ash trees 20 cm DBH and larger	Approx. \$450,000 allocated in each 2010 and 2011.

- The issue is not about comparing one municipality against another: it is about municipalities being innovative and aggressively managing their urban forest without any urban forest mandate or funding from the province.
- Each municipality has unique management objectives, ash inventories, levels of infestation, funding and other resources available for managing the issue. A comparison of the raw number of trees treated by municipality is not an appropriate or a fair comparison.
- For example, EAB was first detected in Oakville in late 2008 and the infestation was less advanced at the time than London's. They began an aggressive survey and injection program the same year. In 2010 Oakville approved additional funding for injections. More recently the City has set a leaf cover target of 40% and their approach is to treat 75% of the canopy of street and park trees and proactively removing and replacing 25% of their trees. Their strategy includes a large public education and support program to engage private landowners to protect their trees. Oakville has hired the equivalent of 2.5 additional full time FTE's to manage the infestation and provide additional support .
- York Region is considering a limited use of TreeAzin and will evaluate only for significant trees and recommends removing trees as they become infested.
- The municipality of Vaughan, on the other hand, is not treating any of their ash trees.
- London did take a "more moderate approach" for 6 years and recognized that the approach would need to evolve as the infestation increased over time.

6. The ability of residents to treat City-owned trees at their expense

- Municipalities such as Toronto and Oakville have a permitting process for this purpose and have staff and other administrative support to manage this program on a limited basis.
- London does not currently have a written policy on homeowners being able to treat municipally owned trees.
- This practice is not encouraged, because it is a contravention of the Boulevard Tree Protection By-law and there are no resources to manage or administer such a program.
- When owners have treated municipal trees staff have endeavored to identify them in the tree inventory to protect them from initial removal.

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Conclusions

1. London’s EAB strategy has evolved and responded to the exponentially increasing and current level of infestation.
2. London’s current EAB management Strategy is based on best management practices.
3. The Strategy was endorsed by Council.
4. Direct comparison of number of trees treated between municipalities is not an appropriate or fair comparison. There are many factors involved in the development of each municipality’s strategy and program.
5. The status of the infestation, funding and resource levels preclude programs similar to other municipalities.
6. There was no conflict of interest in either the development of the strategy or the removal of ash trees.
7. Many of the concerns raised by the Westmount Hills Residents Association (WHRA) had already been addressed in the development of Strategy and in a follow-up meeting with staff on March 14.
8. The City did provide sufficient warning and opportunities for consultation to residents of the Tobin Court and other areas affected by operations this spring.

PREPARED AND SUBMITTED BY:	SUBMITTED BY:
IVAN LISTAR R.P.F. MANAGER OF URBAN FORESTRY	JOHN PARSONS DIVISION MANAGER, TRANSPORTATION AND ROADSIDE OPERATIONS
RECOMMENDED BY:	RECOMMENDED BY:
JOHN BRAAM ACTING EXECUTIVE DIRECTOR AND CITY ENGINEER	JOHN FLEMING – DIRECTOR OF LAND USE PLANNING AND CITY PLANNER

April 25, 2012

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