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EMERALD ASH BORER UPDATE

The Transportation and Works Committee recommends the adoption of the recommendations contained in the following report, May 28, 2008, from the Commissioner of Transportation Services:

1. RECOMMENDATIONS

It is recommended that:

1. The Regional Chair be requested to send a letter to the Minister of Agriculture and Agri-Food, responsible for the Canadian Food Inspection Agency (CFIA), expressing the concerns of the Region about the Emerald Ash Borer (EAB) to request the CFIA to provide funding to municipalities to assist with the removal of infested ash trees , the replacement of trees, and other associated costs.
2. Staff be requested to report back to Council periodically on the status of the Emerald Ash Borer infestation and potential impacts to York Region.
3. The Regional Clerk circulate this report to the Clerks of the local municipalities, the Honourable Gary Lunn, Federal Minister of Natural Resources; the Honourable John Baird, Federal Minister of Environment; the Honourable Donna Cansfield, Provincial Minister of Natural Resources, (Ontario); the Association of Municipalities of Ontario; and the Federation of Canadian Municipalities.

2. PURPOSE

This report provides information on the introduction of an invasive forest insect pest, the Emerald Ash Borer (EAB) *Agrilus planipennis*, to the Greater Toronto Area (GTA) and the potential implications to York Region.

3. BACKGROUND

The Emerald Ash Borer was discovered in Windsor in 2003 and has now spread across south western Ontario

The EAB is a wood-boring beetle native to China, Japan, Korea, Russia, and Taiwan, that poses a significant threat to urban and natural forests. The EAB is considered a primary tree killer and can attack and kill all species of ash trees. The EAB was first discovered in Canada in 2003 in the Windsor area.

Since its discovery in 2003, the EAB infestation has moved easterly towards the GTA. Currently, the leading edge of the infestation is located in the London area. Smaller infestations have also been identified in Norfolk County, Elgin County, Lambton County (*Attachment 1*), and most recently in the City of Toronto.

The Canadian Food Inspection Agency (CFIA) is the federal agency responsible for regulating introduced Forestry and Agriculture pests through the Plant Protection Act. The CFIA is led by a President who reports to the Minister of Agriculture and Agri-Food. The CFIA has the lead role for the management and regulation of the EAB. The CFIA is collaborating with all other government agencies to develop strategies to control and prevent its spread to other areas of Canada.

In December of 2007, an EAB infestation was confirmed in the City of Toronto near Sheppard Avenue and Highway 404. Survey results indicated that the infestation is currently contained to a small area in the City of Toronto. To slow the spread of the infestation, the Federal Minister of Agricultural and Agri-Food issued a ministerial order declaring the City of Toronto infested with the EAB. The order creates a quarantine zone that restricts the movement of ash trees, nursery stock, logs, lumber, wood chips, bark, and firewood of all species from Toronto.

Detection of the EAB is very difficult and is usually only possible after the beetle has been present for several years. No natural enemies exist for controlling EAB populations. In contrast with the protocol for eradication of the Asian Longhorned Beetle, the CFIA does not consider tree removal an effective method for controlling the spread of EAB and eradication of EAB is not possible. The current strategy is to slow the spread through establishment of quarantine zones with the hope that either biological controls or pesticides might be found to combat this pest.

4. ANALYSIS AND OPTIONS

The proximity of the infestation in Toronto raises the concern that the EAB could be introduced in to York Region. The EAB is expected to arrive in the Markham area in the next two to five years and spread throughout the Region over a period of five to ten years. The introduction of the EAB to York Region will have significant impact on the urban and natural forests of York Region. The EAB will significantly impact Regional business including the management of street trees and solid waste management (yard waste handling).

4.1 IMPACT ON THE FORESTS IN YORK REGION

Removal and replacement of the 7,500 ash trees along Regional roads is estimated to cost \$7,000,000

The EAB attacks and kills all ash trees. This will have a significant impact on the forests and urban forests of York Region. The loss of all ash trees will have a major impact on our residents and some Regional business areas (street trees, yard waste management etc.). Staff and the public will have to respond to manage the dead and dying trees. As the ash trees disappear from the landscape, there will be a reduction in the associated environmental and social benefits that these trees provide. The resulting dead trees will create hazards to structures, traffic, and the public.

Ash trees are considered an excellent urban tree because of their ability to tolerate the harsh conditions found in urban planting environments. These characteristics have led to its widespread use as a street tree. The Region has approximately 3,697 ash trees in urban areas, representing 13.2% of the Region's street tree population. There are also an additional estimated 4,000 ash trees along Regional roads in rural areas.

There will be significant financial implications for the Region related to the removal and replacement of ash street trees. Based on current costs, each infested ash tree will cost \$915 to remove and replace. The estimated cost for removal and replacement of the Region's ash street trees is \$7,000,000. Assuming removal and replacement would occur over a five-year period, this would result in an annual expenditure of \$1,400,000.

Similar to Regional roads, local municipalities have used significant numbers of ash trees for planting. In addition to trees on municipal lands, large numbers of ash trees have been planted on the private lands.

The EAB will have ecological impacts on the York Regional Forest. Increases in the number of hazard tree removals will cost an estimated \$235,200

Of the 2,128 hectares of York Regional Forest, ash species can be found in the overstorey on 711 hectares (33%). Typically, ash is a minor component in upland hardwood communities; however there are 166 hectares of lowland forest communities where ash forms more than 30% of the trees present. Ash is also a common species found in the regeneration layer of many forest communities.

As the EAB moves through the York Regional Forest, there will be impacts on species diversity, and the size and age class structure of forest communities. In addition, the dead ash trees along trails will create hazards to forest users. This will be a concern in those communities that have large numbers of ash trees and forest access trails. There are approximately 9.6 km of trails in forest communities where ash forms 30% or more of the trees. Based on current hazard management practices and costs, it is estimated that an

additional \$47,040 will be required annually for five years for the removal of infested ash trees which now present a hazard.

The EAB will result in ecological impacts to the private properties of York Region and could result in a loss of forest cover

Ash trees are commonly found in the private woodlands in York Region. White ash is found in the overstorey of many upland hardwood forests, typically as a minor species. Green ash and Black ash are commonly found in bottomland forests, particularly in the north portions of York Region. Ash is considered an early succession species and is one of the first tree species to colonize sites such as abandon agricultural fields. Many early successional forests in the Region are dominated by ash.

As the EAB moves across York Region, significant changes will occur in the woodlands including alterations in stand dynamics and native biodiversity. The loss of ash trees in some early successional and bottomland woodlands will likely result in the loss of forest cover and an increase in fire risk.

4.2 IMPACT ON SOLID WASTE MANAGEMENT

The implementation of an EAB quarantine zone in York Region will result in increased costs for the handling and processing of yard waste

When the EAB arrives in York Region, the CFIA is expected to expand the current quarantine zone from the City of Toronto to include a portion or all of York Region. York Region has requested to be consulted in the delineation of any revisions to the quarantine zone. The quarantine regulates/restricts the movement of ash material and firewood of all species from the quarantine area. This restriction will include all yard waste material, which potentially could include infested ash wood. Similar to the Asian Longhorned Beetle quarantine zone in the City of Vaughan, all yard waste within the quarantine zone will have to be collected and processed separately. The yard waste will have to be processed according to CFIA protocols to ensure any EAB larvae or beetles are destroyed prior to moving the material.

Currently, the Region spends approximately \$404,000 annually on the processing of potentially infested yard waste within the Asian Longhorned Beetle quarantine zone. The costs associated for treating yard waste for EAB will likely be higher as the quarantine zone will be larger. It is estimated that if the Town of Markham, Town of Richmond Hill, and the City of Vaughan were quarantined, the associated yard waste processing costs to York Region would be \$1,300,000 annually (based on current volumes and known processing costs). The cost would increase as the infestation and associated quarantine zone expanded through other municipalities in York Region.

In addition, significant amounts of infested ash wood will be generated by municipal and private tree removal operations. This infested wood will also require processing prior to

movement from the quarantine zone. Other municipalities in south western Ontario affected by the EAB, have established ash wood drop off locations, where municipal staff, private tree companies, and local residents can drop off ash material for processing. At some of these locations, tipping fees have been charged to recover some of the costs.

4.3 NEXT STEPS

Staff will continue to monitor the EAB infestation in Toronto and begin to identify and implement proactive measures to manage a future infestation

The EAB is expected to arrive in York Region in the next two to five years. The current infestation in the City of Toronto is only five kilometres from York Region. Staff will continue to monitor the status and extent of the Toronto EAB infestation. To prepare for the future infestation of EAB in York Region, staff will undertake several actions as a proactive approach to managing this infestation including:

- Work with the CFIA to monitor the spread of the infestation, and evaluate strategic approaches to mitigate its impact.
- Further assessment through an updated inventory of the impact to trees along Regional roads, Regional owned property, and the York Regional Forest.
- Further refinement of the impact to Regional solid waste management operations.
- Work with Corporate Communications staff to issue press releases and other information to the public.

The Canadian Food Inspection Agency has not provided funding to municipalities to assist with the cost of removal and replacement of infested ash trees

The CFIA has the primary mandate in the enforcement and administration of the Plant Protection Act and associated Regulations. In general, it has been a policy of the CFIA to seek to share costs for the eradication or control programs with the Provincial government and other affected stakeholders. The current CFIA strategy for EAB does not include eradication through tree removal and the CFIA has not provided funding to municipalities for the cost of removing infested or dead trees which are becoming a safety liability.

It is proposed that the Region follow up with the following communication recommendations:

- The Regional Chair be requested to send a letter to the Minister of Agriculture and Agri-Food, responsible for the CFIA, expressing the concerns of the Region about the EAB to request the CFIA to provide funding to municipalities to assist with the removal of infested ash trees, the replacement of trees, and other associated costs.

- Copies of this report and the associated resolutions be sent by the Regional Clerk to the Honourable Gary Lunn, Federal Minister of Natural Resources; the Honourable John Baird, Federal Minister of Environment; the Honourable Donna Cansfield, Provincial Minister of Natural Resources, (Ontario); the Association of Municipalities of Ontario; and the Federation of Canadian Municipalities, urging them to adopt a similar position and advocate on behalf of municipalities affected and potentially affected.

4.4 RELATIONSHIP TO VISION 2026

Vision 2026 includes the following goal statements:

"In 2026, York Region residents will continue to value and embrace the Region's unique natural heritage (land, air, water) and cultural heritage (sites and buildings important to our history, faiths and cultures)."

The Regional Municipality of York has demonstrated a leadership role in the development and implementation of environmental strategies and conservation activities which protect and restore our sustainable natural environment. Taking a proactive position in terms of the threat of the EAB strengthens the Region's commitment to focus on Vision 2026 action areas including:

- Protecting sensitive features such as forests, watersheds, the Oak Ridges Moraine and Lake Simcoe.
- Promoting a permanent linked Greenlands system.

5. FINANCIAL IMPLICATIONS

The arrival of the EAB will have significant implications on Regional operations, including street tree management, York Regional Forest, and solid waste management. Removal and replacement of ash street trees infested by the EAB will cost an estimated \$7,000,000. Removal of additional hazard trees in the York Regional Forest will cost an estimated \$235,200. Separate handling and processing of yard waste within the quarantine zone (Markham, Richmond Hill, and Vaughan) is estimated to cost \$1,300,000 annually.

Currently, no financial assistance is available from the Federal or Provincial governments for costs associated with the EAB infestation. Under the current federal legislation, financial assistance for tree removal and replacement is only provided for in eradication programs, such as with the Asian Longhorned Beetle.

6. LOCAL MUNICIPAL IMPACT

The introduction the EAB will have significant impacts on local municipal operations. Local municipalities have large numbers of ash trees along roads and in parks which will require removal and replacement. Yard waste pick-up operations will be impacted by the creation of an EAB quarantine zone.

Staff will work with local municipalities, and other agencies, to share information and assist the CFIA with monitoring for the spread of the EAB

7. CONCLUSION

The recent discovery of the EAB in the City of Toronto, will eventually lead to significant implications on the Region's urban and natural forests and on Regional and local municipal operations. The EAB will result in the removal and replacement of 7,500 Regional street trees. There will be negative ecological impacts to public and private woodlands, including the York Regional Forest. The implementation of a quarantine zone to slow the spread of EAB will impact the collection and processing of yard waste material.

For more information on this report, contact Paul Jankowski, General Manager, Roads, Roads Branch at extension 5901 in the Transportation Services Department.

The Senior Management Group has reviewed this report.

(The attachment referred to in this clause is attached to this report.)