



The first hole at McHenry CC from the tee. The water on the right is the Fox River.



The thirteenth par 4 at McHenry CC.



The functioning water fountain on the par 4, twelfth hole at McHenry CC.

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Native Ecological Restoration at Rich Harvest Farms

Rich Harvest Farms seventh hole silver has a one and three quarter acre peninsula that is visible from three different holes. This area had become overgrown with invasive ground cover including thistle, prostrate weed, medic, velvet weed, lambsquarters, burdock, ragweed, milkweed, and a few other common broadleaf weeds. The watershed immediately surrounding the peninsula had become silted in with sediment from upstream agricultural fields. This degradation had left several exposed mud flats that had become unsightly to the membership. Something needed to be done that was ecologically sound and aesthetically pleasing in this high profile area.



The dredging of the watershed and the grading of the shoreline at Rich Harvest Farms number seven.

We decided to dredge the flats, create a diverse plant and animal habitat and then maintain the area as a high-quality watershed. In order achieve our goals, we understood the need to reintroduce many native plants and encourage their growth. Furthermore, we decided to add a buffer zone between the water and land to minimize any new potential nutrient loading from runoff into the watershed. In planning, we had to take into consideration a native oak and hickory savanna that would somehow be linked to our new native area. This connection corridor from the new water's edge to the established oak-hickory savannah influenced our plant selection.

Hollembeak Construction Company dredged the area in November 2003. The sediment was distributed on the shoreline of the peninsula. The dredging and redistributing of the sediment was accomplished in only two weeks time due to keeping the spoils onsite. The following spring, a non-selective herbicide was applied over the sediment at two different intervals. These applications helped to suppress any competitive broadleaf weeds once they germinated. In August, the area was graded and seeded

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with native species consisting of many different native forbs, sedges, and grasses. An annual grass was added to the mix to provide cover for the slower germinating native plants. Pizzo and Associates of Leland, Illinois seeded the area using a Truax seeder. The area was then irrigated as needed. A non-selective herbicide was applied to the shoreline with a backpack applicator to keep the weeds in check. The whole peninsula was hand weeded weekly to control some of the invasive weeds still left in the seed bank. The following year selective herbicide applications were utilized followed up by more hand weeding. The irrigations were decreased by half at this time.

At the end of the 2005 season the peninsula was supporting twenty different native species of forbs, sedges, and perennial grasses. It created a corridor for wildlife, connecting the water to the oak hickory savanna using plants that fit. The aesthetics improved with native plant diversification. Game fish, vertebrae,

and invertebrate populations increased by eliminating the mud flats that carp seemed to solely populate. Once the native plants were established, three irrigation heads were removed from the area. The watershed is completely protected by the surrounding buffer. Furthermore, the area is now pleasing to the eye. Many compliments have been shared from the owner and membership as the mud flats have been completely eliminated and replaced with colorful foliage that supports an array of song birds and butterflies.

Surprisingly, for the extent of this project, the costs were low. The most expensive part was the dredging, costing \$15,000. Seed preparation and installation cost \$4,800, including seed. Three maintenance employees weeded and sprayed the peninsula for eight hours per week. The cost to the club for this labor has totaled \$3,600. Labor costs are expected to diminish but not disappear once burning practices can be implemented to control many invasive

weeds. The project has been a success on many different fronts. Improving the aesthetics also increased plant diversification, created more wildlife habitat and created new food sources not previously there. Because of the high profile location of this area, continual maintenance will still be performed and budgeted accordingly.

In retrospect, we should have installed an erosion control blanket to the shoreline and plugged directly into it with native aquatics. We did not expect the native plant species to take as long as they did to germinate and become established. If taking on a project like this, be prepared that first year for slow plant establishment and a shortened bloom. It is normal.



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Emerald Ash Borer

THE BATTLE PLAN

(Two More Infestations Confirmed)

Since the last issue of On Course, two more infestations of the Emerald Ash Borer (EAB) have been discovered in Illinois. The second infestation was found in Wilmette (the first was found in rural St. Charles, in June). A resident discovered the beetle and alerted the village forestry department. After foresters examined the suspect tree they immediately contacted the United States Department of Agriculture, Animal Plant Health Inspection Service (USDA-APHIS). The bug was sent to the USDA to its lab in Romulus, Michigan for confirmation.

Inspectors visited the residence where the beetle was found and discovered several infested ash trees. Upon initial survey, IDOA and village forestry officials found suspect trees in approximately a five-block area with as many as 16 trees exhibiting symptoms of EAB infestation. A more extensive survey of the area has begun to assess the full extent of the infestation.

There are more than 18,600 trees on Wilmette Village parkways encompassing over 150 species and sub-species, of which 2,818 are ash. In light of the threat of the Emerald Ash Borer, the Village has not added any ash trees to its parkway tree inventory since 2003. The village has four foresters on staff, all Certified Arborists. Wilmette has been a certified Tree City for the past twenty-two years, receiving eleven growth awards from the National Arbor Day Foundation for excellence in tree care.

As recently as July 21, 2006 the EAB was discovered in neighboring Evanston. This infestation was discovered by a City of Evanston Parks/Forestry Division employee while assisting in an extensive survey initiated as a result of an infestation in Wilmette. Beetles were found in seven trees located in Lovelace Park, located at Gross Point Road at Thayer Street in the far northwest area of Evanston. In addition, the emerald ash borer was discovered in a tree on private property on the east side of Gross Point Rd. at Thayer Street.

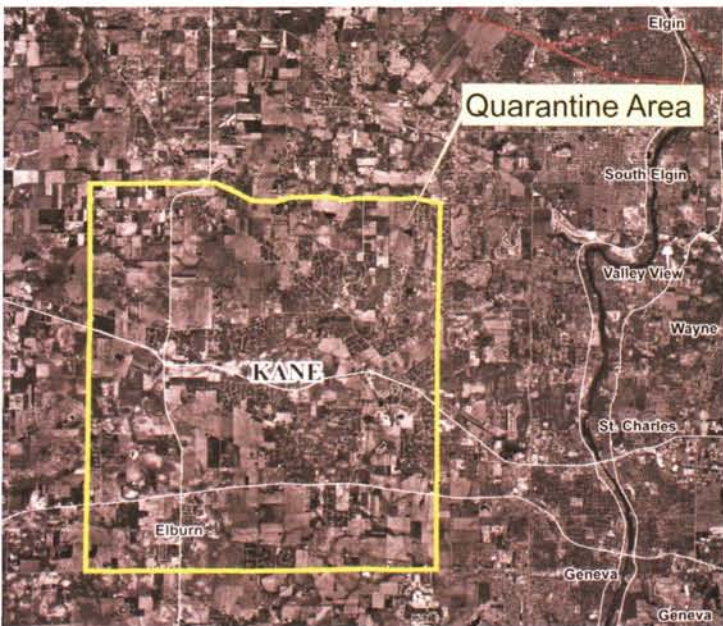
"We have now found 30 infested trees within two communities, all within a ¾ mile radius of the original detection. At this point we don't know how much farther the infestation will reach, but we can't stress enough how important community participation is in fighting the battle against the emerald ash borer," IDOA Division Manager of Natural Resources Warren Goetsch said on July 21, 2006.

Declaration of a Nuisance

On July 17, the IDOA released the Declaration of Nuisance in Kane County. It states:

"NOTICE IS HEARBY GIVEN by the Illinois Department of Agriculture, Bureau of Environmental Programs, pursuant to the Insect Pest and Plant

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A photo of the map showing the 51 square mile quarantine in Kane County.



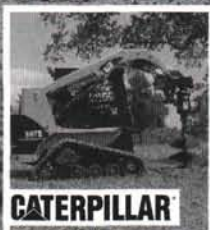
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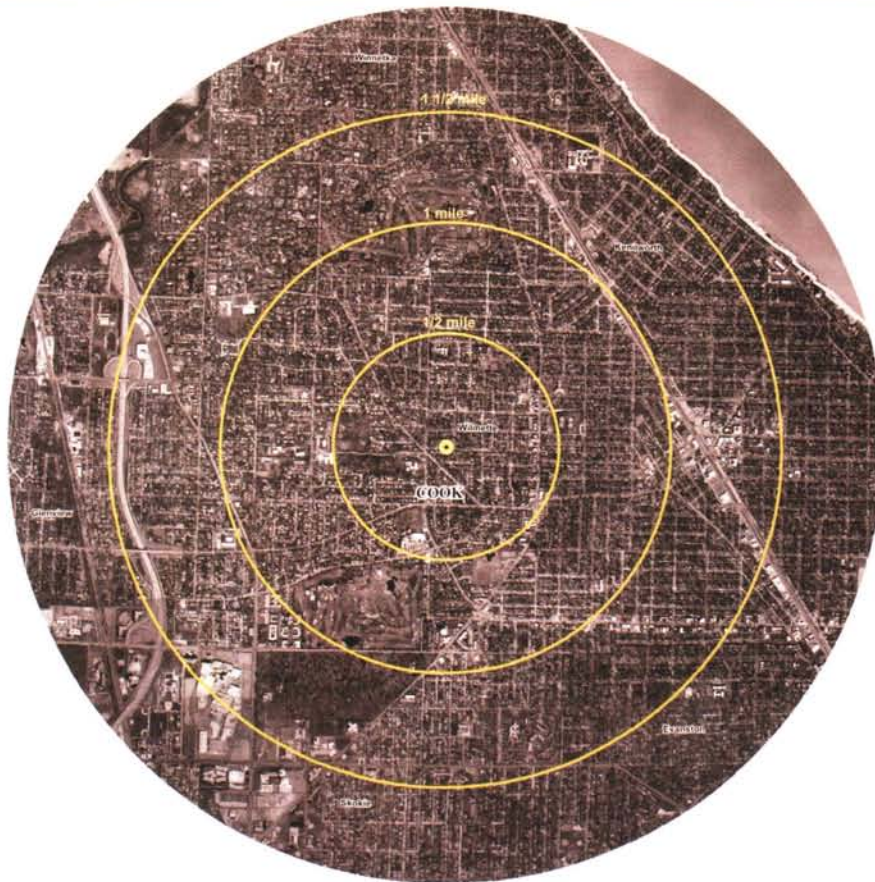
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Disease Act (505 ILCS 90/14) that the Illinois Department of Agriculture is declaring all plants and plant products thereof infested with the Emerald Ash Borer (*Agrilus planipennis* Fairmaire) specifically but not limited to Green ash (*Fraxinus pennsylvanica*), White ash (*Fraxinus Americana*), Black ash (*Fraxinus nigra*), as well as several horticultural varieties of ash, to be a nuisance in the State of Illinois and should be eradicated. The beetle is currently confined to portions of Kane and Cook Counties. There is currently no known treatment to control Emerald Ash Borer. Therefore in accordance with 505 ILCS 90/15, eradication of infested trees according to Department guidelines will be required by the owner, or other persons in possession or control of the infested trees. The responsible party must remove all infested trees by the deadline and method specified by the Department. Failure of the property owner, or person in possession or control of the property to remove the infested trees will result in the tree removal by the State of Illinois and the expenses incurred by the State of Illinois shall be collected in a civil action against the person liable." The Declaration of Nuisance, though seemingly obvious, is a necessary step that has to occur, giving the IDOA the authority to eradicate the pest. The law states prior to the approval of the Declaration of the Nuisance, a public hearing has to occur. Many concerned homeowners, village representatives, business owners, and green industry professionals attended this event. Most voiced their opinions and concerns throughout the afternoon.

It was clear from the comments made during the public hearing, education of the public is going to be the most crucial step if we ever have a chance of containing/controlling this pest. I listened to property owners' concerns about who was going to pay for the removal and remediation of their trees, the impact it will have on their property values, and influence the little bug will have on their quality of life. As I sat in the audience, I tried not to diminish the concerns of the public, but quickly realized ignorance was the motivating factor vibrating their vocal chords. I have sat



The EAB is discovered in Cook County. The map displays 1/2 mile radius circles from the discovery in suburban Wilmette.

on the EAB Readiness Team for the past several years in Illinois and through this group I have learned much about the process when a non-native pest threatens one of our very own. The message the media sends out is critical to raising awareness of the problem, but at the same time, those directly involved (IDOA, APHIS, etc.) pay for the sensationalism and panic that goes with it. So much time is spent on concerns that don't address the problem or address the proper governing body.

I began to grow weary of the concerns about funding, especially when no one that was being addressed could do anything to change the monies delineated. In fact, the people addressing the IDOA have more impact on funding than the actual IDOA officials through the politicians and legislators who represent them. People made claims "based upon internet research" that the IDOA was not disclosing everything about this pest, especially when the subject of treatment was

broached. To date, there are a number of products that will control the EAB, but not one of them has been deemed 100% effective. Thus the IDOA has not made any proclamations about chemical control yet. In fact, during the press conference, it was made clear the protocol (how the IDOA will actually deal with the infested trees) was not even set for the infected areas. This is the next step, and fortunately the IDOA has past experience on their side, as they meet with officials from Michigan to discuss a strategy for Illinois.

Quarantine

Fortunately, the next issue that was addressed this day was the quarantine of the original infection site in Kane County. The purpose of the quarantine is to simply "prevent the spread of a dangerous plant pest." The quarantine makes it illegal to move the following regulated articles:

1. The Emerald Ash Borer in any living stage of development

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2. Ash trees (*Fraxinus spp.*) of any size
3. Ash limbs and branches
4. Any cut non-coniferous firewood
5. Bark from ash trees and wood chips larger than one inch from ash trees.
6. Ash logs and lumber with either the bark or the outer one inch of sapwood or both removed, attached.
7. Any item made from or containing the wood of an ash tree which is capable of spreading the emerald ash borer.
8. Any other article, product, or means of conveyance when it is determined by the Director that it presents the risk of spread of the EAB in any stage of development.

The quarantine goes on to define how movement of regulated articles under certain conditions through a permit and inspection process can occur. Beyond that, the quarantine does not describe what will happen next. The notice of quarantine also allowed public comment. A few more people spoke up, some with concerns that the area was too small (51 square miles) and should encompass the whole county of Kane. Still others, (business owners in Kane County, but not in the quarantine area) were happy the IDOA did not propose a blanket quarantine over the whole county. Nonetheless, the quarantine was subsequently signed and put into place on July 20, 2006.

The Next Step

I mentioned the IDOA has a little time to figure out the next steps that they will take in the three infected sites. See, the adults are still flying right now. It does not make

sense to remove any trees until all the adults have deposited their eggs and completed their life cycle. There is no sense making the adults in the air search for new trees to infect. However if officials will use Michigan, Ohio and Indiana Strategic Plan for the eradication of the EAB, the protocol will look something like this:

- Continue the delimiting surveys in the newly discovered infected sites. (Wilmette and Evanston).
- Implement a survey process with the use of detection trees through-



Steve Knight of APHIS has seen the devastation of the EAB in Michigan as he looks on during the first public hearing.

out high-risk areas (High-risk areas in MI and IN include: sawmills, nurseries, campgrounds, arborists, landscapers, firewood dealers and "call ins" from the public). Past experience shows that detection trees that can be used to monitor movement of the EAB allows inspectors to cover more area than by visual inspection alone. A detec-

tion tree is girdled using a drawknife to remove all the bark from an area approximately six inches wide, four feet above the ground. It is then marked as a monitoring tree with paint and eventually felled and inspected for any life stages of the EAB.

- The control method most effective has been removal of the trees with life stages of EAB and those adjacent trees within a half mile radius from the point of infestation, followed by a herbicide treatment for woodlot trees or grinding of stumps for landscape trees.
- Another method is within a half mile of all infested trees, cut all host trees at or below 4" and let them lie, create islands of girdled/wounded host trees within the perimeter of the cut and treat with pesticide all host trees within the islands of attraction to eradicate any adult emergence from felled trees, remove and digest all other host material following adult emergence and resurvey the next season with detection trees or destructive sampling. (I don't see this as an option for our area, especially in any neighborhood.)
- Creating regulatory activity and putting personnel in place that will be responsible for:
 - Inspecting and issuing certification documents for ash products
 - Defining, assessing and mitigating pathways of artificial spread of EAB
 - Issuing compliance agreements, conducting compliance checks and other inspection activity.

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