

REPORT / RECOMMENDATION



To: Park Board

Agenda Item #: VI.B.

From: Ann Kattreh
Parks & Recreation Director

Action

Discussion

Date: January 13, 2015

Information

Subject: Urban Forest Task Force Report

Action Requested:

Receive presentation from Dianne Plunkett Latham, Energy and Environment Commission member regarding tree policies and GreenStep City recommendation. The Park Board is requested to determine if action will be taken at this meeting.

Information / Background:

The following information was provided by Dianne Plunkett Latham, Energy and Environment Commission member:

The Urban Forest Working Group was established by the Edina Energy and Environment Commission at its February 17, 2010 meeting in order to:

- A. Develop a policy for the future Emerald Ash Borer infestation on public and private property
- B. Make recommendations to increase tree planting on public and private property
- C. Update existing city ordinances with respect to trees
- D. Propose a tree preservation ordinance for redevelopment projects – Referred to the Planning Commission's Residential Task Force on 3-25-13
- E. Make recommendations for trees in Living Streets initiatives
- F. Make recommendations for applicable GreenStep City best practices

The Energy and Environment Commission requests the following actions of the Park Board related to the above objectives:

- A. EAB - Approve the proposed Emerald Ash Borer policy
- B. Increase Tree Planting - Increase the Parks & Recreation tree replacement budget from \$11,000 to \$21,000 to prepare for Emerald Ash Borer loss
- C. Update Existing Tree Ordinances - Endorse proposed city ordinance amendment proposals with the exception that the Park Board does not have jurisdiction over the Section 36 amendments,

which must be approved by the Planning Commission, though the Park Board's comments are nevertheless most welcome.

- D. Redevelopment Project Tree Preservation - The Urban Forest Working Group/EEC found that "there was little wonton removal or trees on public or private property" and declined to recommend a tree preservation ordinance for redevelopment projects, instead referring the issue back to the Planning Commission, which held a public hearing on the Planning Commission's proposed Tree Preservation ordinance on Dec. 10, 2014. The UFWG/EEC recommends that enforcement of any such ordinance be accomplished by the city teardown overseer, given that the City Forester is part-time and has little time for such additional duties. Does the Park Board concur?
- E. Living Streets Initiatives - Does the Park Board concur with the proposed standards for adding more boulevard trees in street reconstruction projects – assuming that the Park Board, as opposed to the Transportation Commission, has jurisdiction?
- F. GreenStep City Best Practices – Does the Park Board concur with:
 - a. Best Practice #18 Green Infrastructure, Action #5, sub step a: Low Maintenance native landscaping:
 - 1) 50% Minnesota native plantings for all new perennial plantings in city parks excluding Edinborough and Arneson parks.
 - 2) Implement a policy similar to Minneapolis Park Department's list of plants NOT recommended for planting in city parks. These plants are high maintenance because they are either invasive, have chronic pest problems, or are designated as noxious weeds by the State of Minnesota. See attached list of 4-17-10.
 - b. Best Practice #18 Green Infrastructure, Action #6 – Certify selected city parks as Audubon Cooperative Sanctuaries similar to what Braemar Golf Course has done.
 - c. Exceed Best Practice #18 Green Infrastructure, Action #8's use of volunteers for noxious weed abatement by establishing an annual institutionalized program which provides maintenance via professionally spraying buckthorn and other noxious weeds, which generally fill in the void where buckthorn was removed. Begin with allocating \$15,000/year for select woodlands, which are both high priority and/or high usage such as Lake Cornelia and/or Bredesen Park.
 - 1) Expand the part-time City Forester position to a full time Natural Resource Manager with an ecology background to better manage all noxious weeds, restore more habitat, give more educational programs, apply for more grants, plant more trees, plan more trail systems, coordinate more volunteers, certify more parks as Audubon Cooperative Sanctuaries

Staff Comments

Emerald Ash Borer (EAB) – City Forester Tom Horwath provided a report regarding Emerald Ash Borer. The report is dated Dec. 30, 2014 and is attached.

There are only approximately 200 ash trees in maintained parks and public spaces. Lewis Park (31) has the most ash trees, followed by Heights Park (13), the Public Works property (16) and the center island of

West 50th Street between Wooddale Avenue and City Hall (17). Staff recommends putting in place a plan to begin replacing ash trees in those locations proactively and systematically to reduce the likelihood a reduction in the tree canopy and aesthetic appeal in those areas in the future. Staff does not recommend insecticide protection for ash trees, but instead prefers to plan for tree replacement as a more cost effective and environmentally friendly alternative. Staff does not recommend including EAB on the Shade Tree Disease Ordinance. This would require mandatory removals of all diseased EAB infested trees on public and private property and would require significant financial resources for homeowners and for the City. Removing these trees will not slow the spread of the disease. All public safety concerns certainly must be addressed. It is likely that EAB is still three to five years from spreading throughout Edina. As we begin to see the spread of EAB to Edina, budgets for tree removal and planting will be increased appropriately.

Tree Ordinance – The Planning Commission considered a draft Tree Preservation Ordinance at their Dec. 10, 2014 commission meeting. A public hearing was held and there were several changes recommended to the ordinance. The commission will be considering the revised ordinance at their Wednesday, Jan. 14 meeting. The ordinance is attached. If approved at the Jan. 14 Planning Commission meeting, the ordinance will appear on the Feb. 3, 2015 City Council agenda for approval. If the ordinance passes, it will require making our part-time City Forester position full-time. The City's Residential Redevelopment Coordinator will not have the time to review tree plans as part of a building permit and inspect all construction projects for tree ordinance compliance. The Planning Department reviews over 200 permits per year. In 2014 there were 134 residential tear down/rebuilds.

Buckthorn Removal – Staff is pursuing adding two more days/week (one for the Arena and one for Park Maintenance/Public Works) for the Institution Community Work Crews (ICWC). The ICWC currently works one day per week at Braemar Arena and one day per week for Park Maintenance/Public Works. The ICWC has done great work for the city in a variety of capacities including buckthorn removal. With supervision from the City Forester, the ICWC has already completed several buckthorn projects in the city. Offenders chosen for ICWC were convicted of a non-violent offense. They are minimum-security, and work under the supervision of a qualified Department of Corrections crew leader. The goal of ICWC is to teach offenders social and work skills while accomplishing projects for local communities.

Tom Horwath, City Forester and Brian Olson, Director of Public Works and Park Maintenance will be present at this meeting to answer questions that may arise regarding the Urban Forest Task Force report.

Staff Attachments:

Planning Commission City Code Amendment Consideration – Tree Preservation
Edina Buckthorn Removal Priority – Prairie Restorations, Inc. & Tom Horwath
EAB Report – Tom Horwath

Urban Forest Task Force Attachments:

EAB Plan – City & Braemar
Do Not Plant List
EEC Proposed Tree Ordinance Changes
Urban Forest Task Force Report

ORDINANCE NO. 2014-25
AN ORDINANCE AMENDMENT REGARDING
TREE PRESERVATION & SUBDIVISION ORDINANCE

The City Council Of Edina Ordains:

Section 1. Chapter 10, Article III of the Edina City Code is amended to add Division 3 as follows:

DIVISION III. TREE PROTECTION

Sec. 10-82. **Preservation, protection and replacement of Protected Trees:** This ordinance applies to all demolition permits; **subdivisions**; building permit applications for a structural addition; and building permits for accessory structures including a garage, deck or a pool.

(1) Purpose: Edina is fortunate to have a robust inventory of mature trees that form an integral part of the unique character and history of the city, and that contribute to the long-term aesthetic, environmental, and economic well-being of the city. The goal of this Section is to preserve as much as practical Edina's high valued trees, while allowing reasonable development to take place and not interfere with how existing property owners use their property. The purpose of the ordinance is to:

- a. Preserve and grow Edina's tree canopy cover by protecting mature trees throughout the city.
- b. Protect and enhance property values by conserving and adding to the distinctive and unique aesthetic character of Edina's tree population.
- c. Protect and enhance the distinctive character of Edina's neighborhoods
- d. Improve the quality of life for all stakeholders, including city residents, visitors and wildlife.
- e. Protect the environment by the filtering of air and soil pollutants, increasing oxygen levels and reducing CO₂; prevent and reduce erosion and stormwater by stabilizing soils; reducing heat convection; decreasing wind speeds; reducing noise pollution and decreasing the urban heat island effect.
- f. Protect and maintain healthy trees in the development and building permit processes as set forth herein; and prevent tree loss by eliminating or reducing compacted fill and excavation near tree roots.
- g. Maintain buffers between similar land uses and establishing and maintaining buffers between conflicting land uses.

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Added text after May 6 - XXXX

Added text after Dec 10 - ~~XXXX~~

(2) Definitions:

- a. **Protected Tree:** Any tree that is structurally sound and healthy, and that meets one of the following:
 - i. a deciduous tree that is at least 8 inches dbh, except box elders, poplar, willow, silver maple, black locust, fruit tree species, and mulberry.
 - ii. a coniferous tree that is at least 20 feet in height.
- b. **Removable Tree.** Any tree not defined as a Protected Tree, and as defined as an invasive species by the Minnesota Department of Natural Resources.
- c. **Critical Root Zone.** The minimum area around a tree that is left undisturbed. The critical root radius is calculated by measuring the tree's diameter at breast height. For each inch of tree diameter, 1.5 feet of root zone radius must be protected. For example, if a tree's dbh is 10 inches, then its critical root zone radius is 15 feet (10 x 1.5 = 15). **If the critical root zone must be disturbed for construction or construction activity, a plan for the disturbance shall be submitted subject to review and approval of the city forester to minimize the damage.**
- d. **Diameter at Breast Height (dbh).** The dbh shall be measured at a height of 1.4 meters.

(3) Demolition and building permit applications must include a tree inventory plan indicating where Protected Trees are located and, their species, caliper, and health. The plan must show how Protected Trees are preserved and protected during construction. The plan must also show if any Protected Trees are proposed to be removed and the location, species and size of all replacement tree(s).

(4) If a Protected Tree is removed, except as allowed for in paragraph (5), it must be replaced with one (1) tree, subject to the following conditions:

- a. Protected trees must be replaced with species of a similar type (**deciduous or coniferous**) that are normally found growing in similar conditions and that are included on the list of acceptable replacement species on file with the city forester.
- b. Replacement trees must be varied by species. **Not more than 30 percent of the replacement trees shall be of any one species.**
- c. Replacement trees must not be subject to known epidemic diseases or infestations. Disease or infestation resistant species and cultivars are allowed.

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- d. Replacement trees must be at least two and one-half inches (2.5") in caliper for deciduous trees and a minimum of seven feet (7') tall for coniferous trees.
- e. Replacement tree plans are subject to approval by the City Forester before implementation.
- f. **Planting of replacement trees shall be verified at the time of final inspection for the building permit.**
- g. The city may allow larger balled and burlapped or spade moved trees if these trees are accompanied with a three-year guarantee. Other size substitutions, based on site characteristics, may be allowed at the reasonable discretion of the city. Any replacement tree that dies within three years after planting must be replaced by the property owner.
- h. If the city determines in its reasonable discretion that there is no appropriate location for some or all the required replacement trees, those trees may not be required. The city also has the discretion to place the replacement trees on public property if there is no appropriate location.

(5) Protected Trees may be removed without mitigation, in the following areas:

- a. Including, and within a ten-foot (10') radius of, the building pad, deck or patio of a new or remodeled building.
- b. Within a five-foot (5') radius of driveways and parking areas.
- c. **In areas of installation of public infrastructure improvements including public roadways, stormwater retention areas and utilities.**

(6) Before construction, grading or land clearing begins; city-approved tree protection fencing or other method must be installed and maintained at the critical root zones of the trees to be protected. The location of the fencing must be in conformance with the approved tree preservation plan. The fencing must be inspected by city staff before site work begins. **The fencing must remain in place until all demolition and construction is complete.**

(7) No construction, compaction, construction access, stock piling of earth, storage of equipment or building materials, or grading may occur within the critical root zone areas of trees to be protected, unless there are no other on-site alternatives. If there are no other alternatives, a plan for this activity would need to be reviewed and approved by the city forester. **A reasonable effort must be made when trenching utility lines to avoid the critical root zone.**

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(8) When construction is complete all trees to remain must have the soil out to their drip line aerated and de-compacted. Aerating must include multiple concentric circles of 1" holes, 2" deep, or as recommended by an arborist.

(9) If Protected Trees were removed within one (1) year prior to the date the development, subdivision application, demolition and building permit applications were submitted, these Protected Trees are also subject to the replacement policy set forth in paragraph (4) above.

Section 2. Chapter 32. Article III. Evaluation of Plats and Subdivisions is hereby revised as follows:

Subsection 32-7. (Subdivisions.) Variances are hereby amended as follows:

Sec. 32-7. Variances.

(a) *Grant by Council.* In connection with the preliminary or final approval of a plat or subdivision the Council may grant variances from the provisions of this Section. The Council shall grant variances only upon finding that an unusual hardship exists as to the land within the plat or subdivision, and specifically that:

- ~~(1) The hardship is not a mere inconvenience;~~
- ~~(2) The hardship is due to the particular physical surroundings, shape or topographical condition of the land;~~
- ~~(3) The condition or conditions upon which the request for a variance is based are unique to the property being platted or subdivided and not generally applicable to other property;~~
- ~~(4) The hardship is caused by this Section and not by the applicant;~~
- ~~(5) The variance will result in an improved plat or subdivision; and~~
- ~~(6) The variance, if granted, will not alter the essential character of the land within the plat or subdivision or in the neighborhood.~~

(1) That there are special circumstances or conditions affecting the property such that the strict application of the provisions of this title would deprive the applicant reasonable use of their land.

(2) That the granting of the variance will not be detrimental to the public health, safety and welfare or injurious to other property in the territory in which property is situated.

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- (3) That the variance is to correct inequities resulting from an extreme physical hardship such as topography, or inadequate access to direct sunlight for solar energy systems etc.

A grant of a variance by the Council shall be deemed to include a favorable finding on each of the variance grounds set out above even if not specifically set out in the approval resolution or the minutes of the Council meeting.

(b) *Conditions.* In granting a variance the Council may impose conditions to ensure compliance with the purpose and objectives of this Section and other applicable provisions of this Code and to protect adjacent properties. The conditions may be made a part of any Development Contract required by article IV of this chapter.

(c) *Variations from Section 36.* When Variations are requested from Section 36, requirements for lot areas and dimensions, the Planning Commission and City Council may consider the following criteria in addition to Section 36-98:

- (1) The impact of the proposed plat or subdivision, and proposed development, on the character and symmetry of the neighborhood as evidenced and indicated by, but not limited to, the following matters:
 - a. The suitability of the size and shape of the lots in the proposed plat or subdivision relative to the size and shape of lots in the neighborhood; and
 - b. The compatibility of the size, shape, location and arrangement of the lots in the proposed plat or subdivision with the proposed density and intended use of the site and the density and use of lots in the neighborhood.
- (2) The impact of the proposed plat or subdivision, and proposed development, on the environment, including but not limited to, topography, steep slopes, vegetation, naturally occurring lakes, ponds and streams, susceptibility of the site to erosion and sedimentation, susceptibility of the site to flooding and water storage needs on and from the site.
- (3) The consistency of the proposed plat or subdivision, and proposed development, and compliance by the proposed plat or subdivision, and the proposed development, with the policies, objectives, and goals of the Comprehensive Plan.
- (4) The compliance of the proposed plat or subdivision, and the proposed development with the policies, objectives, goals and requirements of chapter 36 including, without limitation, the lot size provisions and the floodplain overlay district provisions of chapter 36.
- (5) The impact of the proposed plat or subdivision, and proposed development on the health, safety and general welfare of the public.

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- (6) The relationship of the design of the site, or the improvements proposed and the conflict of such design or improvements, with any easements of record or on the ground.
- (7) The relationship of lots in the proposed plat or subdivision to existing streets and the adequacy and safety of ingress to and egress from such lots from and to existing streets.
- (8) The adequacy of streets in the proposed plat or subdivision, and the conformity with existing and planned streets and highways in surrounding areas. Streets in the proposed plat or subdivision shall be deemed inadequate if designed or located so as to prevent or deny public street access to adjoining properties, it being the policy of the City to avoid landlocked tracts, parcels or lots.
- (9) The suitability of street grades in relation to the grades of lots and existing or future extension of the City's water, storm and sanitary sewer systems.
- (10) The adequacy and availability of access by police, fire, ambulance and other life safety vehicles to all proposed improvements to be developed on the proposed plat or subdivision.
- (11) Whether the proposed plat or subdivision, or the improvements proposed to be placed thereon are likely to cause substantial environmental damage.

Section 4. Chapter 32. Article III. Evaluation of Plats and Subdivisions is hereby revised as follows:

Sec. 32-130. Considerations.

~~The Commission in reviewing proposed plats and subdivisions and in determining its recommendation to the Council, and the Council in determining whether to approve or disapprove of any plat or subdivision, may consider, among other matters, the following:~~

- ~~(1) The impact of the proposed plat or subdivision, and proposed development, on the character and symmetry of the neighborhood as evidenced and indicated by, but not limited to, the following matters:

 - ~~a. The suitability of the size and shape of the lots in the proposed plat or subdivision relative to the size and shape of lots in the neighborhood; and~~
 - ~~b. The compatibility of the size, shape, location and arrangement of the lots in the proposed plat or subdivision with the proposed density and intended use of the site and the density and use of lots in the neighborhood.~~~~
- ~~(2) The impact of the proposed plat or subdivision, and proposed development, on the environment, including but not limited to, topography, steep slopes, vegetation,~~

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naturally occurring lakes, ponds and streams, susceptibility of the site to erosion and sedimentation, susceptibility of the site to flooding and water storage needs on and from the site.

- ~~(3) The consistency of the proposed plat or subdivision, and proposed development, and compliance by the proposed plat or subdivision, and the proposed development, with the policies, objectives, and goals of the Comprehensive Plan.~~
- ~~(4) The compliance of the proposed plat or subdivision, and the proposed development with the policies, objectives, goals and requirements of chapter 36 including, without limitation, the lot size provisions and the floodplain overlay district provisions of chapter 36.~~
- ~~(5) The impact of the proposed plat or subdivision, and proposed development on the health, safety and general welfare of the public.~~
- ~~(6) The relationship of the design of the site, or the improvements proposed and the conflict of such design or improvements, with any easements of record or on the ground.~~
- ~~(7) The relationship of lots in the proposed plat or subdivision to existing streets and the adequacy and safety of ingress to and egress from such lots from and to existing streets.~~
- ~~(8) The adequacy of streets in the proposed plat or subdivision, and the conformity with existing and planned streets and highways in surrounding areas. Streets in the proposed plat or subdivision shall be deemed inadequate if designed or located so as to prevent or deny public street access to adjoining properties, it being the policy of the City to avoid landlocked tracts, parcels or lots.~~
- ~~(9) The suitability of street grades in relation to the grades of lots and existing or future extension of the City's water, storm and sanitary sewer systems.~~
- ~~(10) The adequacy and availability of access by police, fire, ambulance and other life safety vehicles to all proposed improvements to be developed on the proposed plat or subdivision.~~
- (11)** Whether the physical characteristics of the property, including, without limitation, topography, vegetation, susceptibility to erosion or siltation, susceptibility to flooding, use as a natural recovery and ponding area for storm water, and potential disturbance of slopes with a grade of 18 percent or more, are such that the property is not suitable for the type of development or use proposed.
- (12)** Whether development within the proposed plat or subdivision will cause the disturbance of more than 25 percent of the total area in such plat or subdivision containing slopes exceeding 18 percent.

(3) Comply with Section 10-82.

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~~(13) Whether the proposed plat or subdivision, or the improvements proposed to be placed thereon are likely to cause substantial environmental damage.~~

Section 3. This ordinance is effective immediately upon its passage and publication.

First Reading:
Second Reading:
Published:

ATTEST:

Debra A. Mangen, City Clerk

James B. Hovland, Mayor

Please publish in the Edina Sun Current on:
Send two affidavits of publication.
Bill to Edina City Clerk

CERTIFICATE OF CITY CLERK

I, the undersigned duly appointed and acting City Clerk for the City of Edina do hereby certify that the attached and foregoing Ordinance was duly adopted by the Edina City Council at its Regular Meeting of _____, 2014, and as recorded in the Minutes of said Regular Meeting.

WITNESS my hand and seal of said City this _____ day of _____, 2014.

City Clerk

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Edina Parks Priority Rankings

Prepared by Prairie Restoration, Inc.

(Revised 2004 Report including Braemar, Bredesen and some Open Space)

High Priority: Van Valkenburg, Arden, Normandale, Highland, Garden, Melody Lake, Krahl Hill, Braemar Park and Lake Cornelia.

The parks listed above get the highest priority according to our standards by having high quality natural areas. These areas have the greatest diversity and quality trees along with a quality herbaceous layer. These parks may have higher percentage of buckthorn infestation and require the most hours of removal but I believe have the greatest potential of reclamation from buckthorn.

Van Valkenburg is a great example of an oak savanna. By removing all the vegetative buckthorn material from the site it will look cleaner and in the future, after a few years of herbicide treatment, the buckthorn seedlings could be managed by the use of prescribed burns. Burning controls the buckthorn seedlings and enhances the native herbaceous layer. Oak savannas are one of the rarest natural ecosystems we have in Minnesota and when possible we should try to maintain the quality examples we have left.

Arden Park is a great park with oak woods along the west side of the creek. I believe the removal of buckthorn would greatly enhance the park along with educating citizens of the importance of buckthorn removal. The removal should not affect many neighbors and you would have a quality oak woodlot for people to enjoy.

Normandale is a great park with oak woods on south and west facing hillside. There is good herbaceous layer and nice tree diversity. A buckthorn removal would affect some of the neighbors but would greatly enhance the parks woodland.

Highlands and Garden Parks are beautiful parks in Edina. The Highlands Park itself has a lot of specimen trees with buckthorn growing up in them and on the northeast corner has great oak woods. Garden Park lacks specimen trees but has a large diversity of trees including oak woods and cottonwoods. Garden Park would also benefit from buckthorn removal by the park entrance for better visibility.

Melody Lake is an underdeveloped park that is hidden away in its neighborhood. There is a great potential in keeping this park a natural area for all to enjoy.

Lake Cornelia is a park that has it all. I believe it a highly visited park with its aquatic center and large natural area with the lake in the middle. The buckthorn removal here should include cut/slash and cut/chip/haul in the highly visited portions of this park.

Krahl Hill is a very nice oak woods that is heavily infested with buckthorn. The topography of the park is extremely interesting and difficult to work but is well worth reclaiming from the buckthorn invasion.

Braemar Park is a large park with a fair amount of quality natural areas. The buckthorn removal in a park this size should be taken in stages. It is an area with great public education potential on the hazards of buckthorn in our natural areas.

Middle Priority: Pamela, Todd, Lewis, York, Creek Valley, Heights, Walnut Ridge, Wooddale, Utley, Williams, Lincoln Drive Floodplain, Bredesen Park and Arneson Acres.

The middle priority parks get a mid-priority ranking by their lower quality natural areas. These areas have a lower diversity and not as desirable trees as the high priority natural areas, plus a minimal herbaceous layer. The removal of buckthorn from these woodlots is still important, but when ranking all the parks, they do not rank as high in importance when compared to the high priority parks. Some of these parks include specimen trees that have buckthorn growing under them as well as infested natural areas.

Bredesen Park is a huge undertaking for buckthorn removal. There will be need for a discussion of options of removal by using more mechanical means than by chainsaw.

Low Priority: Alden, Browndale, St. Johns, Birchcrest, Countryside, Sherwood Pump, Cornelia School, Frank Tupa, Bob Kojetin, Chowen, Weber, Lake Edina, Fred Richards Golf Course, Fox Meadow, Bristol, Yorktown, McGuire, Strachauer, and Tingdale.

These parks have the lowest priority ranking due to the nature of their buckthorn infestation. Buckthorn is common on the woodland edges of these parks and generally is not very heavily infested. The buckthorn removal in these low priority parks would make great community involvement projects because of their lower hour requirements for removal and minimal impact they would have on the overall appearance of the park.

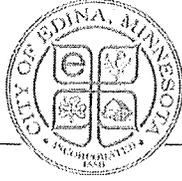
The removal of buckthorn is important within all the parks, the final decision of which parks get cut first is ultimately up to the Edina Parks System. The above priority list is an inventory of buckthorn and a guideline in determining a plan for the removal of buckthorn within the park system of Edina. Some factors that need to be considered prior to buckthorn removal areas follows: the quality of the natural area, percentage of infestation, preferred buckthorn removal process and equipment required, economic limitations and amount of time allotted to complete the removal process. The biggest keys in the removal of buckthorn are having a long term management plan, flexibility and persistence. The removal of buckthorn is the first step in a journey of reclaiming our natural woodlots.

Edina Park Summary-Priority Based (2004 PRI)

* Completed by 2012		Removal Time and Method				Types of Infestation							
** Some Progress by 2012						Hedge/Park Edge		Specimen trees	Natural Areas				
Park Name In order of priority	Estimated Removal Time (hrs)	Cut/Slash	Cut/Burn	Cut/Haul or Cut/Chip/Haul	Volunteer Help Feasible	Number	Location	Number	Size (acres)	% BT	Infestation Level H M L	Herbaceous layer VG G P	Natural Area Type
Van Valkenburg**	550-600		X	X					15	100	H	VG	Oak Savanna
Arden**	275-325	X							10	85	ML	G	Oak Woods
Normandale	150-175	X	X						4	75	M	G	Oak Woods
Krahl Hill	250-300	X							5	100	H	P	Oak Woods
Highlands**	450-500	X		X				50-75	12	90	MH	VG	Oak Woods
Garden**	200-250	X	X						6	100	H	G	Oak Woods
Melody Lake**	100-125	X							4	75	M	G	Oak Woods
Braemar**	3500-4000	X							250	90	MH	G	Oak Woods
Lake Cornelia**	250-300	X		X					10-15	90	MH	G	Oaks, Boxelder
Pamela Park	350-425	X		X					10	75	M	G	Oaks, Cottonwoods
Todd**	250-300	X							10	95	MH	G	Cottonwood, Oak
Lewis**	250-300	X							10	85	M	G	Oak Woods
Lincoln Drive Flood Plain	350-400	X							8	85	M	P	Cottonwoods
York Park	30-40	X							1	65	M	P	River Bottom
Creek Valley**	150-175	X							6	75	M	G	Cottonwoods
Heights	65-85	X							3	65	M	P	River Bottom
Walnut Ridge	150-175	X							8	70	ML	G	Cottonwoods
Bredesen**	4500-5000	X							175	100	H	P	Aspen, Oaks
Wooddale**	4-6	X				2	W, N				L		Boxelder, Oaks
Utely	15-20	X				3	E, S, W				L		Rivers Edge
Williams/Mill site*	1-2	X							.02	15	L		Boxelder
Arneson Acres*	20-25			X				20-30			L		
Alden	2-3	X			Y				0.1	20	L	G	Oak Savanna
Browndale**	4-6	X							0.25	25	L		Oak, Pines
St. Johns**	4-6			X		1	W				L		Oaks
Birchcrest	2-4	X							0.2	40	L		Boxelder
Countryside*	25-30	X				1	W				M		Cottonwoods
Sheerwood Pump	2-4			X	Y	1	S				L		Pines
Cornelia School	2-4			X	Y			20			L		
Frank Tupa*	4-6			X					0.2	70	M		Shrub type
Bob Kojetin**	6-8			X		2	S, W				L		
Chowen	20-25			X		2	S, W				L		BT Hedge
Weber	65-85	X		X		1	E				L		Cottonwoods
Lake Edina	75-100	X							4	100	H		
Fred Richards Golf	36-72	X		X		1	SE	lots			L		
Fox Meadow*	1-2	X			Y						L		

Removal Time and Method

Types of Infestation



December 30, 2014

Brian Olson
Director of Public Works

RE: Emerald Ash Borer Preparation

Dear Brian:

The following report, at your request, is a brief summary of the biology of Emerald Ash Borer (EAB), a tree disease that has already caused the deaths of millions of Ash trees within its every expanding range, and addresses issues and concerns which must be clarified in order to formulate a more comprehensive City-wide management plan.

As for estimated projection of EAB infestation in Edina, the initial concern is first when it will be positively identified by the Minnesota Department of Agriculture. Whether this happens in 2015, or any subsequent year, this isolated occurrence will still take at least several years to reach a more wide-spreading epidemic level throughout the City. My personal estimate at this stage, is that this is, at nearest, 3 – 5 years from now.

Sincerely,

Tom Horwath
Edina City Forester

cc: Scott Neal

Enc.

Emerald Ash Borer Preparation

Emerald Ash Borer (EAB) was first discovered in the metro area in 2009. This native tree pest has killed millions of Ash trees in the eastern United States where it was first identified in 2000. Unlike other native tree borers which kill trees which have other stresses, EAB can breed in and kill all species of Ash trees, whether they are healthy or not. Thus, mortality rates are far greater than normal losses associated with other tree borers.

For the past five years EAB has been spreading slowly in the metro area. The nearest positive discovery to Edina is at Lake Harriet. In 2014 there have been only 2 more new sites reported, neither of which is closer to Edina. Despite this slower than originally predicted spread of EAB, the consensus remains that mortality rates and new infestations will continue to expand and eventually reach similar proportions to affected eastern states and Canada.

EAB preparations thus far include: attending informational seminars, inspecting Ash trees in the City for signs of EAB, inventoried all maintained parks and other areas controlled by the City, posted EAB information on the City web site and reviewed EAB preparation plans of other cities.

Each city must individually plan for EAB according to various circumstances, desires and Ash population. Some items to address include: inventory of Ash population, reforestation and chemical protection of any significant Ash trees, include EAB on diseased tree ordinances (mandating removal of infested trees on public and private property or not), removal of healthy Ash trees to reduce Ash population, and public education of EAB.

We have conducted an inventory of Ash trees in our maintained parks and other City public spaces. Total Ash trees counted was 200. This very low number greatly reduces the anticipated additional workload for our staff, compared to other cities with much larger populations in their parks. It also negates the necessity to remove any healthy Ash trees in advance of EAB.

A further decision must be made whether a more inclusive inventory should be conducted to include the boulevards throughout the City and Ash populations along edges of parks. Currently, for many years in Edina, the abutting property owners are responsible for the care of, and necessary removals of, trees along the boulevards. If this policy is continued, any boulevard tree inventory would not be necessary. If the policy is changed to shift Ash removals along boulevards to City responsibility, an accurate inventory may be needed, or the Forester can simply take measurements on an individual basis when needed. Edina is again fortunate to not have a noticeable large population of Ash trees lining many boulevards. At this time, I have asked S & S Tree Company to give me an estimate for a boulevard tree inventory.

Of the 24 parks inventoried, only 4 areas were rated as having the highest concern for potential Ash tree losses. Lewis Park has the highest number of Ash trees, 31. The highest area of concern in this park is the boulevard area along Cahill.

Heights Park has a cluster of 13 mature Ash trees surrounding the playground at 66th and Hillside Road.

The Public Works property has 16 mature Ash trees along the boulevard. Losses of all these trees would significantly affect the boulevard tree scape.

The center island of West 50th Street between Wooddale Avenue and City Hall has 17 young Ash trees (6-12" DBH). As for planning for Ash replacements, these four areas should be highly prioritized. Replacement trees could be planted at these sites ahead of anticipated EAB losses.

Should the City consider insecticide protection for any Ash trees? My opinion is that it would be a less expensive and more desirable policy to purchase new trees.

The greatest effect of the EAB losses in Edina will be the potential for trees lost on private properties. Mature Ash populations are very high on residential properties and commercial or industrial properties. The selection of Ash tree replacement for Dutch Elm disease losses far exceeded other species choices. Although removal of dead or dying Ash trees, unlike Dutch Elm disease or Oak Wilt, will have no effect on slowing or controlling this disease, these diseased trees will cause heightened public safety concerns throughout the City. Any public safety concerns can be remedied by our existing hazardous tree ordinance and policy. Thus, mandatory removal of all EAB trees would not be necessary to address the small proportion of EAB trees causing potential public safety concerns.

IF EAB is added to our diseased tree ordinance, and removals are required, we must consider the expense burden these tree removals will have on private property owners versus the fact that removing these trees will have no impact in any way of controlling or slowing the spread of this disease. Mandatory removals of these trees will also greatly increase the burden on staff to inspect all private properties, notify affected residents, inspect for compliances, and potentially necessitate an increase in our budget for assessment costs.

If EAB is not added to our diseased tree ordinance, undoubtedly there will be an increase in the number of dead and dying trees on private properties, and a longer duration if they are left standing or not removed. I'm sure this will cause a spike in inspection requests, either for public safety concerns or concerns about spreading EAB, or "unsightly" concerns. Of course, as mentioned earlier, all public safety concerns must be addressed. However, there is no ordinance or regulation requiring mandatory removal of all dead or dying trees, which are non-infectious, on private property.

EAB will necessitate an increase in line item expenditures – tree replacements and contractual services. Currently the tree planting budget is \$10,000 annually. In order to replace an additional 200 park trees, and assuming this goal can be achieved over an estimated 5 years of tree losses to EAB in our maintained park areas, this may be accomplished by doubling the budget.

Among other expenditures, contractual services are used for paying tree companies for mandated private tree removals, which are then assessed to property taxes. The Forestry contractual services budget is currently \$19,000 annually. An increase in this budget is dependent on whether or not EAB removals are mandated. If it is, I would anticipate at least a

doubling of our yearly assessment expenditures. If not mandatory, but an increase in mandatory hazardous tree removals are necessary, an increase of at least 50% should be considered.

In summary, I consider these to be the important decisions to be made in order to prepare our response and actions to manage this forthcoming tree disease:

1. Include EAB on Shade Tree Disease Ordinance? Mandatory removals for all diseased EAB infected trees on public and private property? If mandatory, does the City have resources and finances available for such large numbers of required removals outside of perimeters of maintained park lands?
2. Increase in Forestry budget line items, particularly for reforestation and contractual services.
3. Expand inventory sites (i.e. boulevards and parkland borders of maintained areas) and borders with private property?
4. Chemical protections of any significant Ash trees and, if so, increase in budgeted money for such expenditures?

From: Tom Horwath [mailto:THorwath@EdinaMN.gov]
Sent: Wednesday, March 27, 2013 10:54 AM
To: 'Dianne Plunkett Latham'
Subject: Emerald Ash Borer



Thomas Horwath, City Forester

952-826-0308 | Fax 952-826-0392

THorwath@EdinaMN.gov | www.EdinaMN.gov

...For Living, Learning, Raising Families & Doing Business

Prepared for URBAN FORESTRY TASK FORCE

Emerald Ash Borer (EAB) was first identified in Michigan in 2002. This wood borer is native to Asia. In its native range the borer/host relationship is similar to other species of wood borers: they attack only trees with weakened defensive systems. Outside of this native range, however, these borers will lay eggs in all species of Ash trees regardless of the health of the trees. This factor greatly expands the incidences of tree mortality. In the infested middle eastern states this disease is responsible for killing millions of trees.

EAB has been positively identified in our metro region in 2009. Since then, despite control efforts, these isolated pockets of EAB have continued to spread slowly. In 2012 EAB has been positively confirmed at Lakewood Cemetery, the closest to Edina at 3 miles NE.

Since the initial discovery of EAB in the metro area I have inventoried all of our maintained areas of our parks for Ash populations. Generally I have found our parks to be well diversified, with low populations of significant Ash trees. I have identified three sites that are at risk for being the most affected by Ash tree losses. They are:

- 1) Heights Park. There are 13 mature Ash trees around the playground
- 2) Lewis Park. There are 10 mature Ash trees along Cahill Rd. Also within the park are 11 Ash of 12" dbh or less; 11 Ash 13-20" dbh and 15 Ash 20" dbh or greater.
- 3) 50th St median – Between Wooddale Ave. & City Hall. 17 Ash of approx. 6-8" dbh.

The total number of significant Ash trees, or other Ash trees that may need to be removed for public safety purposes on city maintained properties is estimated to be less than 500. Fortunately I believe this potential extended work load could be able to be handled in house, especially since the number of trees dying will be spread out over a period of years.

Chemical treatments are available for individual trees. There are various brands and formulas and different application methods. Due to the complexity of these factors, at this time I will mention an excellent web site for further review for anyone interested in this information. It is: emeraldashborer.info. This web site is compiled by various university researchers in the initial infested areas. A topic that should be addressed is: should the city consider using preventative chemical treatment for any significant Ash trees on city property? In my opinion tree replacement – proactively and/or as trees die – should be paramount management strategy, but not to the exclusion of selective chemical protection of the most valuable Ash trees.

Another issue is: Should EAB be added to our city's disease tree ordinance along with Dutch Elm Disease and Oak Wilt to mandate the removals of EAB infested trees on public and private property? Since EAB cannot be controlled through a removal/sanitation process, I personally don't believe it should be added. Dead or dying Ash trees that should be removed for public safety purposes can be ordered to be removed by existing ordinance.

With the potential for increased tree losses from EAB, an increase in annual tree replacement becomes necessary. Currently \$10,963 is budgeted for tree planting. To achieve any increase in annual planting, I would recommend an increase in this annual amount. Due to limited staff resources during planting periods, I wish to base the proposed increase amount on nursery contracted delivery and planting rates. For larger size trees an average cost per tree for tree cost, delivery and planting would be about \$250. If \$10,000 was added to this budget, 40 additional trees could be planted. However it is also important to remember that the annual number of trees planted should not exceed staff capability to maintain these new trees, after they are planted, in a manner that will increase the odds of successfully raising healthy and aesthetically pleasing trees throughout our park system. Tree planting is only the initial stage of a reforestation program.

In summary, EAB is in the metro area and is expected to slowly increase from the infested scattered pockets for the next several years. However, from lessons already learned, the mortality curve will drastically swerve upward as more trees die and EAB populations increase exponentially. Edina is fortunate not to have high densities of Ash trees lining the boulevards (which are the abutting property owners' responsibility anyway) and manageable densities in maintained parklands. However, not to minimize the potential devastating impact, many landowners throughout the city are at risk for losing many important and significant Ash trees on their property. For many years now the Ash tree has been the overwhelming choice of tree species to plant.

Braemar golf course EAB plan – Prepared by Tom Swenson

Braemar golf course had approximately 180 ash trees within the park as of 2010. Unfortunately, many of these trees were planted as monoculture groupings. Although none of these trees have been determined to be significant in nature, the groupings of these trees have value to the golf course. Chemical treatments are not viewed to be a long term solution to the EAB situation. During the last 3 winters Braemar staff has removed individual trees in these groupings that have storm damage or are unhealthy. These trees have been replaced with new plantings. The goal is to replace the worst of the ash trees with a diverse planting ahead of the EAB infestation. As Braemar moves forward with this program, the increase in tree diversity will help reduce the impact of EAB and any future pests that have not been identified.

CITY OF EDINA POLICY PROPOSAL

PLANTS NOT RECOMMENDED FOR PLANTING IN EDINA CITY PARKS

4-17-10

Listed plants include those which are invasive, which have chronic pest problems, or which are noxious weeds in the State of Minnesota. This list will be revised with additions on a regular basis due to changing climactic conditions.

• **Invasive** - Plants with invasive potential, or those already known to be invasive and destructive to native plant communities are marked with an **(I)**

• **Chronic Pest Problems** - Plants that have chronic insect/disease pest problems that would result in higher maintenance costs and/or early mortality rates are marked with a **(P)**

• **Noxious Weeds** – Plants on the Minnesota Dept. of Agriculture’s Noxious Weed list are marked with an **(N)**

Neither plants, cultivars nor seed of any of these plants should not be planted in the Edina park system.

Common Name	Latin Name	Problem
<u><i>Woody Plants</i></u>		
Amur Maple	Acer ginnala	I
Box Elder (female)	Acer negundo	P
Norway Maple	Acer platanoides	I, P
Barberry- any species, cultivars	Berberis sp.	I
Siberian Peashrub	Caragana arborescens	I

Russian Olive	<i>Eleagnus angustifolia</i>	I
Glossy Buckthorn	<i>Frangula alnus</i> , 'Tallhedge', 'Asplenifolia'	I,N
Non-native Honeysuckles	<i>Lonicera tatarica</i> , <i>morrowii</i> , others	I
Mulberry	<i>Morus</i> - any species or cultivar	I
Amur Cork Tree- female form	<i>Phellodendron amurense</i>	I
Austrian Pine & other long needled pines	<i>Pinus nigra</i>	P
If Ponderosa and Red Pine are specified, they must be installed in windy locations to dry the foliage. They also need to be spaced with large distances between plants to insure very good air circulation. All of these plants are being attacked by <i>Sphaeropsis</i> (<i>Diplodia</i>) in wet seasons and where there is poor air circulation.		
Common Buckthorn	<i>Rhamnus cathartica</i>	I,N
Alpine Currant	<i>Ribes alpinum</i>	P
Black Locust	<i>Robinia pseudoacacia</i>	I
Siberian Elm- aka Chinese Elm	<i>Ulmus pumila</i>	I
Winged Euonymus (currently becoming a problem in zone 5 areas and has potential here)	<i>Euonymus alatus</i>	I

Herbaceous plants

Crown Vetch	Coronilla varia	I
Queen Anne's Lace	Daucus carota	I
Grecian Foxglove	Digitalis lanata	I
Orange Hawkweed	Hieracium aurantiacum	I
Dame's Rocket	Hesperis matronalis	I
Yellow Flag Iris	Iris pseudacorus	I
Bird'sfoot Trefoil	Lotus corniculatus	I
Ribbon Grass	Phalaris arundinacea and all cultivars (variegated form of Reed Canarygrass)	I
Japanese Knotweed	Polygonum (Persicaria?) cuspidatum	I
Common Tansy	Tanacetum vulgare	I
Vetch	Vicia sp.	I
Smooth Brome Grass	Bromus inermis	I
Amur Silver Grass	Miscanthus sacchariflorus	I
Reed Canarygrass	Phalaris arundinacea	I
Curly Dock	Rumex crispus	I
Purple Loosestrife	Lythrum salicaria	I, N

Proposed Revisions to City of Edina Ordinances Related to Trees
by Energy and Environment Commission/Urban Forest Working Group

Revised 12-2-14

Sec. 36-1438 Minimum Requirements. All open areas of a lot which are not used and improved for required parking areas, drives or storage shall be landscaped with a combination of overstory trees, understory trees, shrubs, flowers and ground cover materials

- (1) ~~Minimum Number of Overstory Trees. The number of overstory trees on the lot or tract shall be not less than the perimeter of the lot or tract as measured in feet divided by 40.~~
- (2) Understory Trees and Shrubs. In addition to the ~~required number of~~ overstory trees, a full complement of understory trees and shrubs shall be provided to complete a quality landscape treatment of the site.
- (3) Minimum ~~Size and Root Condition of~~ Required ~~Overstory~~ Trees. The living overstory and understory canopy shall cover at least 50% of that portion of the lot, which has been disturbed by improvement excluding the parking lot, which shall have at least 15% canopy coverage. Coverage shall be calculated as that percent when the trees are at maturity and shall exclude the footprint of the building or other structures.

~~Minimum Amount of Required Trees~~

	Building Height – Front			
Tree Type	Deciduous (in ft)	Coniferous (in ft)	Less than 24'	24' or Greater
Ornamental	2 or less	5 or less	5%	5%
Complimentary	2½ or greater	6 or greater	60%	25%
Accent	3½ or greater	8 or greater	20%	25%
Primary	4½ or greater	10 or greater	10%	20%
Full	5½ or greater	12 or greater	5%	20%

~~Calculations to determine minimum number of trees are always rounded up. Tree size, as to deciduous, is the diameter of the tree measured 6 inches above the ground. Tree size, as to coniferous, is measured in height.~~

All new overstory trees shall be balled and burlapped or moved from the growing site by tree spade.

- (4) Species.
 - a. All required overstory trees shall be composed of species which are classified as overstory trees by the American Nurseryman's Association. ~~Trees which are considered as half trees, shrubs, understory trees or ornamental trees shall not be included in the count of required overstory trees;~~
 - b. Not more than 50 percent of the required number of overstory trees shall be composed of one species;
 - c. No required overstory trees shall include
 - 1. All species of the genus Ulmus (elm) with the exception of Dutch Elm Disease resistant elm cultivars;

2. Box elder;

3. All species of the genus Populous (poplar) with the exception of Aspen as well as seedless Cottonwood cultivars, or ~~(iv) ginkgo—female only~~

4. Ash; and

d. All plant materials shall be indigenous to the hardiness zone of the area in which the City is located.

(5) Credit for Existing Trees. ~~The total number of required new overstory trees may be offset by the retention of existing overstory trees on the lot provided that the trees satisfy the requirements of this division as to size and species.~~ The Planner shall determine the amount of the credit for existing trees based upon their location and distribution on the lot.

(6) Ground Cover. All unimproved portions of the lot or tract shall be sodded or planted with groundcover plants. Provided, however:

a. Areas reserved for future approved building expansions may be seeded;

b. Undisturbed areas containing existing viable natural vegetation which can be maintained free of weeds may be left undisturbed; and

c. Slopes steeper than 3:1 may be seeded or planted with groundcover plants.

Sec. 24-22 Exceptions. The following are exceptions to Sec. 24-21

(6) Shade trees planted on boulevards, provided that the following species are prohibited unless permission is granted in writing by the Park Director:

a. Willows.

b. Elms with the exception of Dutch Elm Disease resistant Elm cultivars.

c. Box Elder.

d. ~~Cottonwood~~ Poplar (with the exception of seedless cultivars of cottonwood), ~~aspen~~, poplar or other members of the genus Populus, with the exception of aspen.

e. Pine, spruce, fir, yew or other conifers.

f. Silver maple.

g. Ash trees.

Sec. 30-180 Abatement and Spraying of Shade Tree Disease Nuisances. In abating or ordering the abatement of the nuisances defined in section 30-177, the tree inspector shall cause or order the infected tree or wood to be sprayed, removed, ~~burned, chipped~~, or otherwise effectively treated so as to destroy and prevent as fully as possible the spread of the diseases. Such abatement procedures shall be carried out in accordance with prescribed methods approved by the state commissioner of agriculture. Whenever the tree inspector determines that any elm or oak tree or elm or oak wood within the City is infected with Dutch elm or oak wilt disease, the tree inspector may spray all nearby elm or oak trees with an effective pesticide. Spraying activities authorized by this article shall be conducted in accordance with the technical and

expert opinion and plans of the state commissioner of agriculture and under the supervision of the state commissioner or agents of the commissioner whenever possible.

Sec. 30-199 Public Streets or Boulevards. Whenever the tree inspector finds with reasonable certainty that a nuisance defined in section 30-177 exists in any tree or wood within a public street or boulevard in the City, the Tree Inspector shall notify the abutting property owner by mail of the infestation, and specify a time in which the infestation shall be sprayed, chipped, removed or otherwise treated by such owner or owners to the satisfaction of the tree inspector. The notice shall also state that if the nuisance shall not have been abated by the owner within the time provided, it will be abated by the City and that the entire cost will be billed to the owner and if not paid shall be assessed against the abutting property under M.S. 429.101.

Urban Forest Task Force (UFTF) Report

DRAFT of 6-4-13

The Urban Forest Task Force was established by the Edina Energy and Environment Commission at the February 17, 2010 Meeting. It consists of Chair Dianne Plunkett Latham (EEC), Joseph Hulbert (Park Board), Michael Schroeder (Planning Commission), Staff - Tom Horwath (City of Edina Forester). Attending meetings related to City Planning code was staff Carry Teague (Planning Director) as well. The Urban Forest Task Force met eleven times between 3-18-10 and 4-02-13.

The UFTF's purpose was to:

- A. Develop a policy for the future Emerald Ash Borer infestation on public and private property
- B. Make recommendations to increase tree planting on public and private property
- C. Update existing city ordinances with respect to trees
- D. Propose a tree preservation ordinance for redevelopment projects – Referred to the Planning Commission's Residential Task Force on 3-25-13
- E. Make recommendations for trees in Living Streets initiatives
- F. Make recommendations for applicable Green Step City best practices

A. Proposed policy for Emerald Ash Borer (EAB) Infestation on Public and Private Property

The attached proposed EAB policy was developed by the City Forester and endorsed by the UFTF on 3-26-13.

B. Increasing Tree Planting on Public and Private Property

1. Public Property

UFTF endorses the City Forester's recommendation of increasing by \$10,000 the current Park and Recreation Department budget of \$10,963 for tree replacement in city maintained areas due to anticipated future Ash loss occasioned by Emerald Ash Borer. It is expected that virtually no Ash trees will survive EAB unless treated with systemic pesticide, which has its own set of hazards. The only natural barrier to EAB in Minnesota is temperature below -30F. Given that the USDA upgraded the metro zone hardiness by +5F in 2012, it is not expected that temperatures in the metro will exceed -25F. Thus, Ash trees are likely to survive only in Northern Minnesota where temperatures still drop to -30F. Tree loss on city property will soon accelerate due to Ash tree losses. Ash trees constitute approximately 10% of the trees city property. Given that EAB loss is still 3-4 years away, the city should proactively plant diversified tree species in available space in anticipation of future EAB losses.

Approximately 100 – 150 trees are lost annually on city property to Dutch Elm Disease (DED). A further 2 – 3 trees are lost annually due to oak wilt, as well as 5 – 10 trees due to storm damage. Most of these losses are in city woodland areas, where trees are replaced naturally. The annual tree loss in city maintained areas is approximately 20 trees. Funding and staffing exists for planting 25 – 30 trees/year in city maintained areas. These tree loss/replanting figures exclude Braemar, which also plants an additional 25 – 30 trees/year in its maintained areas. In addition, residents donate or receive grants and plant approximately 35 additional trees annually. See Appendix A for listing of citizen tree planting donations. Edina's history of citizen involvement in tree planting is very much appreciated and should continue to be encouraged.

Increasing the Park and Recreation tree replacement budget from \$11,000 to \$21,000 will increase the annual tree planting rate from 25 – 30 trees to 65-70 trees. This will replace the 63 Ash trees the City Forester has inventoried in city maintained areas (excluding Braemar) as well as plant additional trees. Braemar had approximately 180 Ash trees in 2010. The City Forester estimates that the cost of planting one tree is approximately \$250. This includes contracting for a 2" DBH tree, delivery, planting, mulching and watering for the first year.

In the past the City Horticulturalist had a policy of planting twice as many trees as required and then not watering them. The understanding was that although many would die, some would survive. Given weather extremes and warmer summers, this practice should be discontinued. Before trees are planted a plan must be in place for their mulching and watering. This plan may include avoiding planting trees during the hot summer and instead restricting tree planting to spring and fall during cooler and wetter weather. Furthermore, available city staff is very limited during the summer when many other seasonal duties are required.

2. Private Property

An additional 500 – 600 Elms are lost annually on private property. More Ash trees exist proportionately on private property than on city property in Edina. Residents should be encouraged to plant more trees. Recommendations to encourage residents to plant more trees include the City Forester giving an annual program on tree planting, perhaps in conjunction with the Annual Arbor day tree planting project for which volunteers are requested. The City Forester also responds to the public's questions about tree health and planting and provides written material about tree planting upon request.

The EEC Education and Outreach Working Group should also be encouraged to host educational programs on the benefits of trees and on how to plant for success.

The City of Plymouth uses the city discount to order trees for residents in the spring. Residents pay in advance, and then come to the Public Works building to pick up the trees on a specified day in the spring. The Edina City Forester indicated that he does not have sufficient staff to undertake such a project. Whereas Plymouth has a full-time forester and a full-time forestry technician, the City of Edina has only a part-time forester and a part-time forestry assistant. The UFTF's impression was that there may be sufficient opportunity to purchase discount trees through sources such as mail order, Home Depot, Sam's Club, etc., without the need to have a city sponsored discount tree purchase program.

C. Update City of Edina Tree Ordinances

A summary of the amendments proposed for the current city code pertaining to trees and the rationale therefore is as follows:

1. 1200 Use and Maintenance of Streets

- a. Ash has been added to the list of prohibited trees for boulevard planting. Aspen, seedless cottonwoods and Dutch Elm Resistant Elms have been removed as prohibited trees for boulevard planting.

Ash - In light of EAB, Ash trees will not survive absent the use of systemic chemical pesticides. Though not yet banned in the US, some of these chemicals have been implicated in France and other European countries for bee colony collapse disorder (CCD) and consequently banned. Residents applying chemical pesticide soil drenches in proximity to city gutters are also problematic.

Poplar - Aspen and seedless cottonwoods had been previously inadvertently excluded for boulevard planting under the prohibited popular species. These were not intended to be excluded and have been specifically allowed.

Elm - New cultivars are Elms have been hybridized, which effectively resist Dutch Elm Disease (DED) and residents should be given an opportunity to utilize them given that the City Forester has found them to be effective in his trial plantings in city parks.

2. 850.10 Landscaping and Screening

- a. The performance standard for tree canopy in commercial developments has been changed from one overstory tree per 40 feet of perimeter of the lot or tract to that of a performance standard of the following. “The living overstory and understory canopy shall cover at least 50% of that portion of the lot, which has been disturbed by improvement excluding the parking lot, which shall have at least 15% canopy coverage. Coverage shall be calculated as that percent when the trees are at maturity and shall exclude the footprint of the building or other structures.”

The performance standard for the area of the lot disturbed by improvements was changed because plantable space on some lots cannot accommodate the number of overstory trees, which one per 40 linear feet of perimeter would yield. *EEC noted that it did not have enough information to either agree or disagree with this recommendation.*

A performance standard of 15% canopy is need for parking lots to improve water retention, improve air quality and also for heat island mitigation. The Edina City Hall parking lot would conform to this standard and can provide a model.

The 2012 MPCA Urban Heat Island Mitigation and Air Quality Improvements Through Urban Forestry draft report of January 2013 indicates that:

Urban areas tend to be warmer than their surroundings due to less natural vegetation, more pavement and built surfaces, the orientation of buildings in cities, impacts of a wide range of mechanical devices (vehicles, furnaces, motors, etc.), and other factors.

According to US EPA’s web site on the Heat Island Effect, “the term ‘heat island’ describes built up areas that are hotter than nearby rural areas. The annual mean air temperature of a city with 1 million people or more can be 1.8 – 5.4F (1-3C) warmer than its surroundings. In the evening, the difference can be as high as 22F (12C). Heat islands can affect communities by increasing summertime peak energy demand, air conditioning costs, greenhouse gas emissions, heat-related illness and mortality, and water quality.”

Increased air temperature can have a significant impact on air quality by increasing formation of ozone and particulate matter. Higher air temperatures can also lead to increased demand for air conditioning, resulting in greater air emissions from electricity generation.

- b. Groundcover is included as an alternative to sod. Native groundcovers, in particular would require less maintenance.
- c. See rationale for Ash, Aspen, seedless cottonwood and DED resistant Elms above in section 1200. Planting female Gingko trees will be allowed in new developments, but not on boulevards. Female Gingko trees produce numerous acorn-sized seeds, which when stepped upon produce a foul odor, making them unsuitable for boulevards where the seeds may be crushed on sidewalks or streets. If planted in sod areas this may not represent a problem in a development.

3. Section 1055 – Control and Prevention of Shade Tree Diseases

- a. Burning is excluded in the list of approved methods to remove the wood of infected trees given that some residents are sensitive to wood smoke, e.g. asthmatics. Chipping is substituted instead of burning.

D. Propose a Tree Preservation Ordinance (TPO) for Redevelopment Projects

One of the original objectives of the UFTF was to propose Ordinances to protect trees in the development process and to enhance the urban forest. The topic of the Edina Planning Commission’s Feb. 10, 2010 Zoning Ordinance Update Committee (ZOUC) was Tree Preservation. The Feb. 10, 2010 ZOUC packet included an Edina Tree Preservation Ordinance (ETPO), which was proposed in 2002, along with its legislative history. Concerns expressed by the Planning Commission and City Council in 2002 included:

- 1) The increased involvement of the City Forester, who, as a part-time employee, could not comply with additional duties.
- 2) Concern for making the entire city a tree preservation zone, which subjects residents to a tree removal permit requirement each time they relandscape and remove a tree.

The February 10, 2010 ZOUK meeting recommended to refer the Tree Preservation issue to the EEC. At the Feb. 17, 2010 EEC meeting, the EEC established the UFTF and the Tree Preservation issue was referred to the UFTF. The Planning Commission subsequently established the Residential Task Force (RTF) in 2013 consisting of Michael Platteter, Arlene Forrest and Ken Potts. On March 25, 2013, the RTF Chair, Michael Platteter and the UFTF Chair, Dianne Plunkett Latham agreed that the issue of protecting trees in the development process should be referred to the RTF.

The UFTF found that generally, there was little wonton removal of trees on public or private property within Edina other than in isolated instances. It is very costly to remove a mature tree and consequently trees are generally only removed in cases of disease or of relandscaping; such tree removals are not in need of regulation. When trees are removed in such circumstances they are generally replaced with new trees within a few years.

The current concerns over tree removal stem instead from the recent increase in teardowns generally found in the Northeast quadrant of Edina on small lots less than 75' wide. Even there, when trees are removed to expand a home footprint, however, they are generally replaced within a few years. Often new homes' landscapes look bare initially given that the expense of a new home means that the homeowner must wait a few years to replenish their funds before they can finish landscaping. Residents generally do not invest \$500,000 - \$1,000,000 in building a new home and then leave the lot bare, but instead relandscape in due course.

In reviewing Minnesota case law with respect to trees, note that tree branches that overhang another's property or tree roots that push up a sidewalk or driveway or clog a sewer are considered a nuisance. Property owners in every state have the right to use self-help to prune branches or roots of a neighbor's tree that encroaches onto their property. The leading Minnesota case on nuisance trees is *Holmberg v. Berglin*, 172 N.W.2d 739 (Minn. 1969). See also "In the Sade of a Tree: Analyzing the Tree-related Legal Problem" by Steve Pihlaja and Lorrie Stromme, *Bench & Bar* March 2002.

The City of Minnetonka Tree Protection ordinance at City Code 300.28, Subd. 19 states that:

"R-1: For the construction of a principal structure on a vacant R-1 lot or for redevelopment of an existing R-1 lot, protected trees may be removed with no mitigation only within the "basic removal area". The "basic removal area" is defined as:

- a. Within the areas improved for reasonably-sized driveways, parking areas and structures without frost footings and within ten feet around those improvements;
- b. Within the footprints of, and 20 feet around buildings with frost footings; and
- c. In areas where trees are being removed for ecological restoration in accordance with a city-approved restoration plan.

Some consideration should, nevertheless, be given to the preservation of tree roots during the construction process. Critical Root Zone in the City of Minnetonka Tree Protection ordinance is defined as:

[T]he minimum area around a tree that must remain undisturbed. The critical root radius is calculated by measuring the tree's diameter at breast height. For each inch of tree diameter, 1.5 feet of root zone radius must be protected. For example, if a tree's dbh is 10 inches, then its critical root zone radius is 15 feet (10 x 1.5 = 15)."... A tree will be considered removed if girdled, if 30 percent or more of the trunk circumference is injured, if 30% or more of the crown is trimmed, if an oak is trimmed between April 1st and July 15th, or if the following percentage of the critical root zone is compacted, cut, filled or paved: 30 percent of the critical root zone for all species, except 40 percent for ash, elm, poplar species, silver maple and boxelder.

Contractors sometimes pile excavated soil to a height of 6 ft against the trunks of trees on a temporary basis until it can be filled back in along the foundation or removed. This practice does not necessarily have a negative effect on a

dormant tree, only on a growing tree. This practice has been successfully used in Indian Hills on Oak trees during the tear down process and those Oaks were not negatively impacted given that the soil was stored there only during the Oak's dormant season.

Contractors sometimes sever tree roots when they trench for footings, etc. This does not necessarily mean that the tree will die. Survival depends on the tree species, tree age, how deep the trench is, how close the trench is to the tree trunk, and the percent of roots severed. The City Forester has found that in over 75% of these cases the trees survive.

Although teardowns occur throughout Edina, most complaints stem from those teardowns on lots less than 75 feet wide. As such the UFTF believed that it would not be prudent to design an ordinance applying to the entire city to address the localized problem of small lot teardowns. Problems unique to small lots teardowns should be addressed by the Planning Commission's Residential Task Force (RTF) and any enforcement accomplished by the proposed city teardown overseer.

If the Planning Commission's RTF were to adopt a Minnetonka-like Tree Protection ordinance for small lots of 75 feet or less wide, query how many trees would actually fall within the tree mitigation zone? Likely none on either side of the home and few to the front or rear of the home given that few trees are removed more than 20 feet beyond the home footprint or 10 feet beyond the driveway and other structures without frost footings. In deep lots, trees at the back lot line could fall in to the mitigation zone, but it is rare that such trees would have been removed in any event. If few trees fall within the mitigation zone reasonably defined by the City of Minnetonka, then a development process Tree Protection ordinance cannot be realistically looked to for solving many of the neighbor's perceived tree problems occasioned by teardowns on lots of 75 feet or less wide.

E. Recommendations for Trees in Living Streets Initiatives

1. Living Streets objectives with respect to trees as listed on p. 29 of 2-11-13 Living Streets draft:
 - a. Develop a comprehensive tree ordinance for the preservation and addition of boulevard trees
 - b. Define standards for preserving and/or adding boulevard trees to all street reconstruction projects
2. Proposed Standards
 - a. All street reconstruction plans will include adding 1.5" to 2" DBH overstory trees along the boulevard such that at maturity their drip lines will nearly touch, except in such areas where rain gardens or driveways are anticipated. Minnesota native overstory trees are preferred. Survival rates are the best for trees within the 1.5" to 2" DBH range.
 - b. Funding for the trees will be part of the cost of street reconstruction project. This will include planting and mulch as well as a watering contract for the first year. Thereafter residents will be responsible for watering and pruning the trees.
 - c. The homeowner on whose property the trees are to be planted will have the opportunity to select the species of trees to be planted on their property from a list of tree species approved by the City. Selections will be made on a first come, first served basis for each project so that no more than 50% of the trees in any street reconstruction project will be of any given species. The City will make the selection for any resident not declaring their selection by the required date. Residents will be asked to list their first, second and third choices.

F. Recommendations for Applicable Green Step Cities Best Practices

1. GreenStep Best Practice #16 Urban Forest

http://greenstep.pca.state.mn.us/cityInfo.cfm?ctu_code=2394621. At least two actions are required. Actions #1 and #4 are complete for purposes of GSC level 3 certification. Action #6 is recommended for future implementation.

Action #1 - Qualifying as a Tree City USA. The City Forrester will initiate a new application annually (Complete)

Action #4 - Maximize tree planting along your main downtown street (Complete) Trees were planted along the 50th and France shopping district sidewalks on both sides of the street. The tree wells are approximately 40 ft or less apart excluding driveways and utility vaults.

Action #6 - At least two practices must be chosen. This action was not required for Edina's level 3 certification, but if implemented, can be used to obtain a higher GSC certification. The UFTF recommends substeps a. and b.

- a. Enact Ordinances to protect trees in the development process and to enhance the urban forest. Referred to the Planning Commission's Residential Task Force on March 25, 2013.
- b. Adopt Landscaping performance standards that specify tree cover and other vegetation to be used in parking areas, maintenance yards and in other areas of mostly impervious surface. This can be accomplished by amending 850.10 (Landscaping and Screening) as follows, "The living overstory and understory canopy shall cover at least 50% of that portion of the lot, which has been disturbed by improvement excluding the parking lot, which shall have at least 15% canopy coverage. Coverage shall be calculated as that percent when the trees are at maturity and shall exclude the footprint of the building or other structures."

2. GreenStep Best Practice #18 Green Infrastructure. At least three actions are required. The UFTF recommended actions #5, #6, and #8, all of which are complete for purposes of GSC level 3 certification.

Action #5 Park Management Standards that maximize at least one of the following. Sub steps b. and c. are complete. Sub step a. is recommended for future implementation.

- a) Low Maintenance native landscaping – UFTF recommends Park Board institute the following policies:
 - 1) 50% Minnesota native plantings for all new perennial plantings in city parks excluding Edinborough and Arneson parks.
 - 2) Implement a policy similar to Minneapolis Park Department's list of plants NOT recommended for planting in city parks. These plants are high maintenance because they are either invasive, have chronic pest problems, or are designated as noxious weeds by the State of Minnesota. See attached list of 4-17-10.
- b) Organic or Integrated Pest Management – (Complete) The UFTF 4-6-10 meeting recommended establishing a Task Force to update the 1995 Edina Turf Management Plan (TMP) as amended on 6-13-01. The EEC approved the establishment of TMP Task Force at its 4-8-10 meeting. Germana Paterlini represented EEC and Chaired it, Ellen Jones represented the Park Board, Mary Jo Kingston represented Community Health and Vince Cockriel represented city staff. Park Director John Keprios and EEC Chair Dianne Plunkett were ex officio members. New organic practices and products became available since 2001 and were evaluated and incorporated into the TMP; the list of noxious weeds was updated to comply with state statute, as well as provision made for woody invasive control with appropriate chemicals. Council considered the revised Turf Management Plan at the 2-21-12 EEC/Council Work Session and the plan was implemented during the summer of 2012 on a pilot basis. Council formally approved the TMP at the March 5, 2013 Council meeting with some revisions.
- c) Sources of non potable water for irrigation – (Complete) City well #14 –was taken out of service in approximately 2006 due to elevated Radium 226 levels and was repurposed to irrigate Braemar Golf Course.

Action #6 Certify golf courses for Audubon Cooperative Sanctuary – Complete for Braemar as of 2004 and also for Fred Richards Golf Course. In 2009 the EEC recommended to the Park Board that city parks be certified as Audubon Cooperative Sanctuaries as well. This is especially applicable to Bredesen Park, which is Edina's passive nature center. The Park Board should initiate certifying selected city parks.

Action #8 Develop a program that involves community in land restoration and stewardship (Complete) Edina currently has community involvement in land restoration and stewardship in the form of community initiated buckthorn busts, but they are inadequate to deal with Edina's 600 acre parkland infestation given that the city has no budget and no institutionalized program of buckthorn abatement. Noxious weed control needs to be annually funded on a wider scale, through an institutionalized program as opposed to relying on volunteers or on the Forestry staff lag time during the Fall.

CURRENT PROCESS - When a group volunteers to remove buckthorn, the City Forester gives them a training presentation. The City provides the roundup and tools such as weed wrenches and hand saws. Volunteers cut, paint the stumps with Roundup, and stack the buckthorn brush. The City hauls the buckthorn to the city brush dump at Braemar Arena. From there the City of St. Paul District Energy chips it up and, for a low fee, hauls it to St Paul District Energy to be burned for energy.

For examples of past citizen involvement in buckthorn and other noxious weed control, see Appendix B.

Woodland Health - The City Forester has found that buckthorn is negatively impacting oaks at Van Valkenburg Park as well as other parks, causing premature oak death. To improve oak health, he and his staff annually remove buckthorn at Van Valkenburg Pk as well as by the pool at Roseland Park. Oaks, however, also exist in a dozen other parks, including Alden, Arden, Bredeben, Braemar, Browndale, Garden, Highlands, Lake Cornelia, Lewis, Melody Lake, Normandale, and St. Johns Parks. City staff and volunteers are insufficient to do the work needed. Their work must be augmented by professional buckthorn removal services. The city forester's buckthorn abatement budget is currently zero. It must be augmented by at least \$15,000 per year to hire professional buckthorn removal services to remove buckthorn and annually maintain select woodlands. See attached listings of the 2004 inventory of Edina woodlands with their associated levels of infestation, which was made by Prairie Restoration, Inc. (PRI) pursuant to a \$5,000 grant.

Sentence to Service (STS) was utilized to remove buckthorn for two weeks in 2002 and for two weeks in 2003 at no charge to the City of Edina. The first two weeks of STS labor are offered at no charge to a city in an effort to induce the city to hire an STS crew on a paid basis. Although more workers were provided via STS than on a professional crew, the quantity and quality of work accomplished was substantially less and with more damage to non target trees than when using a professional crew. Furthermore, STS crews require considerable amounts city staff time whereas professional crews require little city staff time.

The problems encountered with STS crews in 2002 and 2003 buckthorn abatement projects included:

- A different crew came daily and thus the training had to be repeated daily.
- Non-target plants were inadvertently removed by STS crews who had little knowledge of native plants, despite training given by the city staff or volunteers.
- STS crews are not allowed to apply chemicals, which then had to be applied by city staff or a volunteer. A State license is required to apply Roundup or other chemicals when anyone is paid for chemical application.
- STS crews were poorly supplied with equipment. The chain saw equipment which STS crews brought was poorly maintained and frequently broke down necessitating the use of city equipment. No weed wrenches and few if any bow saws were supplied to the crews. Thus City staff or a volunteer had to get the equipment from Public Works and return it daily.
- STS crews came poorly motivated and prepared to work. Some STS crew members came in sandals, wearing sun dresses, and one even had an arm in a cast. Some crew members hid in the brush to avoid work. A single correction supervisor was supplied with the crew and they had to operate the chain saw and could not see what all the workers were doing.
- STS crews require close supervision when brought into a facility for a break. In 2002, items were stolen by STS personnel from city staff lockers at the public works building.

The City of Minneapolis found that the only buckthorn abatement activity that STS crews could do effectively was to drag and stack buckthorn and that city staff had to cut down the buckthorn and paint the stumps themselves. Some believe that it is not necessary or desirable to drag buckthorn out of the woods because it is more beneficial to chip buckthorn brush and blow it back into the woods as mulch to suppress buckthorn and other noxious weed seedlings. Kelodale Garden Club donates the funds to do this in the Edina Art Center woodland with success. Some parkland managers leave buckthorn brush in the woods to biodegrade in place, which can easily be done in areas not frequented by the public.

In summary, professional crews are more cost effective, require considerably less staff time and do a better job of removing buckthorn and identifying non target species than STS crews. Commercial companies that have been hired to successfully remove buckthorn in Edina include:

- Minnesota Conservation Society – 2011 Countryside Park

- Minnesota Native Landscapes – 2009 to the present by Kelodale Garden Club at the Edina Art Center at Lake Cornelia

Though STS crews are not well suited for buckthorn abatement, they can do effective work for cities in other areas such as the maintenance work they did at the Braemar Ice Arena. For buckthorn abatement projects, STS crews may be better suited for removing buckthorn in maintained areas such as under specimen trees or along fence lines. There non target trees are not an issue, though supervision, motivation and poor equipment would likely continue to be issues.

Creative funding should also be considered to pay for additional buckthorn removal and habitat restoration services. Consider options such as:

1. Grants - The city must become more proactive in taking advantage of habitat restoration grants. Consider grants such as the DNR Conservation Partner grants or Legacy funds. To date the city has not received any habitat restoration grants. The DNR does not give grants to remove buckthorn. The DNR only gives grants for habitat restoration. The grant must state that not only buckthorn, but all noxious weeds within the restoration area will be removed and subsequently controlled. List all applicable noxious weeds – garlic mustard, canary reed grass, tartarian honeysuckle, buckthorn, etc. Indicate how the habitat will be restored including techniques to minimize erosion, to replant or to reseed. Indicate also how the restoration will be maintained, such as by controlled burn (for prairies or Oak savannah), weed whipping, mulching or foliar chemicals, etc.
2. Interns - Greater use of summer interns who could be incentivized with \$1,000 stipends solicited from community organizations (Garden Council, Rotary, Lions, etc).
3. Create an adopt-a-woodland program, similar to the adopt-a-park program, which would work on controlling buckthorn and other noxious weeds. These volunteers would be trained by the city Forester and hopefully would volunteer on an annual basis, which they are more likely to do if the target park is in their neighborhood. They would need to sign a waiver of liability and get the Forester's approval prior to any work continuation after the initial project.
4. Bonding - Minnetonka included noxious weed abatement funding in their Park bonding process for both woodland and wetland.

Maintenance - Once an area is cleared of buckthorn it must be maintained indefinitely as the buckthorn will otherwise reseed and again cover the area within about ten years. This can be done by any of the following methods: mulching, foliar chemical spraying, controlled burns (applies to prairies or oak savannah), or by annual brush cutting. When buckthorn is initially cut, it can be chipped up and evenly blown back into the woodland, supplying mulch to suppress the next generation of buckthorn seedlings. Thereafter, fall leaves can be spread in a woodland for mulch to a thickness of not more than 4 inches. Kelodale Garden Club used buckthorn wood chips, followed in some years by leaf mulch at the Edina Art Center with success. Oak leaves constitute the best leaf mulch because they persist the longest given that earth worms choose them last because of their acid content. The City of Edina Forester weed whips buckthorn at Van Valkenburg Park. When professionals are hired, foliar chemical spraying is their preference.

The UFTF recommends that the City Forester and Dianne Plunkett Latham give the EEC Liaison, The Park Superintendent, the Park and Recreation Director, the City Manager and any other interested city staff a tour of the habitat restoration sites at Van Valkenburg supervised by the City Forester, the Edina Art Center woodland restoration led by Dianne Plunkett Latham and at the Lake Cornelia wildflower restoration led by Kevin Clay. These areas demonstrate that planned habitat restoration can be accomplished successfully. A walk in May when the wildflowers are blooming would be ideal.

Garlic Mustard - After buckthorn is removed, care must be taken to prevent Garlic Mustard and other noxious weeds from filling the void. The State of Minnesota requires control of Garlic Mustard. Opening the canopy by removing buckthorn permits Garlic Mustard and other noxious weeds to germinate. Shade must be maintained with mulch or by replanting with native trees or other native plants. The Edina City Forester prefers to remove buckthorn only in the understory where the canopy would not be opened. Weed whipping, hand pulling or spraying are the typical options for Garlic Mustard control. The Park Board budget needs to include annual funding for noxious weed maintenance once

buckthorn is removed if Edina's native plants, wildlife and scenic natural resources are to be enjoyed by today's residents and preserved for future generations.

Natural Resource Manager - To more effectively control noxious weeds and address other environmental issues in the park system, the UFTF recommends hiring a full-time Natural Resource Manager, as opposed to a part-time Forester. More knowledge of ecology is required today given the arrival of many invasive plant, insect and aquatic species. A passive forestry program with a philosophy of 'Natural Forest Succession' and one primarily focused on tree diseases such as oak wilt and Dutch Elm Disease, is no longer adequate. Cities having full time staff include the following:

Eden Prairie – FT Forester, FT Forestry Technician (has Forestry degree), FT Environmental Coordinator (Leslie Stovring)

Golden Valley – FT Environmental Coordinator (Al Lundstrom)

Mtka – FT Natural Resource Manager (Jo Colleran), FT Forester (Emily Barbo Ball), FT Water Resource Specialist, FT Natural Resource Restoration Specialist (Janet Larson)

Plymouth – FT Forester (Paul Buck), FT Forestry Technician

St. Louis Pk – FT Forester (Jim Vaughn), Seasonal Forestry Technician

With a full-time Natural Resource Manager the following can be accomplished: more grants can be applied for, more parks can be certified as Audubon Cooperative Sanctuaries, more trees can be planted, more buckthorn and other noxious weeds can be controlled, more habitat can be restored, and more educational programs can be offered to residents. In addition, full-time positions attract candidates with more extensive applicable natural resource education and more applicable experience as opposed to part-time positions.

Trail System - The 2007 Park Needs Assessment Survey indicated that residents' top park need was hiking and walking trails. The City Forester has identified an area of Walnut Ridge Pk, Bredesen Park and Heights Park, which has the potential for an interconnected park trail system. Buckthorn should be removed in these parks along the proposed interconnecting trail, followed by native plant restoration. Thereafter annual brush cutting or annual foliar spraying would be needed to maintain these areas to enable users to experience native vegetation, by enabling users to walk into these areas, which are currently impenetrable due to buckthorn.

Bredesen Park - Given that Bredesen Park is the city's passive nature center and is Edina's most frequently visited park natural area, it should receive special attention. The native vegetation is highly degraded by buckthorn and other noxious weeds and in great need of restoration. No buckthorn has been removed in Bredesen Park in the past 10 years. Volunteer efforts in Bredesen Park should be augmented by professional crews. Bredesen Park should also be certified as an Audubon Cooperative Sanctuary.

Public Education - The City of Edina Forester, Tom Horwath has a presentation on buckthorn control. Dianne Plunkett Latham has a PPT presentation on buckthorn and other noxious weed control. Michael Schroeder also has a presentation on the importance of trees to a community. All are willing to give their programs for any group of residents wanting more education in these areas.

Appendix A

Citizen Involvement in Tree Donation and Planting 2008 - 2012

- From 2005 through the present the Kelodale Garden Club led by Dianne Plunkett Latham has donated native trees and shrubs from seeds started in their yards for the habitat restoration project in Rosland Park near the Art Center. They were assisted by the Daughters of the American Revolution, Monument Chapter in planting them. About 3 per year are donated.
- The Edina Garden Council donates funds for planting trees at Arneson Park. About 2 per year are donated.
- Fall 2008 Jeannie Hanson's Carbon Footprint Forest project at Pamela Park in, in which about 45 trees were planted pursuant to a \$4,000 Krieg grant from the Minnehaha Watershed District. Planting was assisted by the Friends of the Edina Nature Center and other residents.
- Spring 2009 - Joseph Hulbert obtained a \$16,000 MNDOT grant and organized his neighborhood to plant 75 trees and 190 shrubs along Hwy 100.
- Fall 2009 Rob Erickson organized a tree planting of approximately 10 trees at Triangle Park. The trees were donated by Grove nursery and planted by the park's neighbors.
- April 30, 2010 – On Earth Day 10 trees were planted on the West side of the Pamela Park parking lot made possible through a grant from Dow Water Process Solutions. Thirty Dow employees assisted with the planting.
- May 2010 – The St. John's Park neighborhood planted 11 trees
- Oct 2010 Eagle Scout Triangle Park project to plant 5 trees donated by Grove nursery
- 2011 City Forester Tom Horwath estimates 5 trees were donated and planted.
- 2012 City Forester Tom Horwath estimates 5 trees were donated and planted.
- 2013 - EEC anticipates a tree planting project using the \$1,058 in proceeds from the 7-31-11 ECO Tour, which EEC sponsored. City Forester Tom Horwath recommends using the funds to interplant Ash trees at Heights Park, where there are 13 mature Ash trees surrounding the playground. The number of trees, which can be purchased with the available funds, depends on the size of the trees. If 2.0 inch diameter balled and burlaped trees are ordered, 4 can be purchased. This size tree would need to be delivered and professionally planted. The available funds would covering delivery and planting for 4 trees of 2.0 inch diameter DBH. If 1.5 inch diameter DBH trees in pots are ordered, 10 can be purchased. These can be picked up by the City Forester and planted by volunteers. The planting would occur in the Fall. Would EEC commissioners and EEC Working Group members and their families like to personally plant the trees in the Fall?

Appendix B

Past Citizen Involvement in Buckthorn and Other Noxious Weed Control

- Fall 2003 & 2004 - Edina Garden Council (EGC) and League of Women Voters of Edina (LWVE) organized by Dianne Plunkett Latham canvassed the city and hung nearly 2,000 door hangers on resident's front doors where buckthorn was found growing on the property. Many residents removed their buckthorn as a result. EGC and LWVE each donated \$200 for the door hangers with \$25 donated by Jean White for a total of \$425.
- May 2003 - Sentence to Service (STS) was joined by members of the Kelodale Garden Club organized by Dianne Plunkett Latham to remove buckthorn near the Edina Art Center parking lot. Thereafter, Kelodale Garden Club and the Conservation League of Edina led by Jean White planted trees and wildflowers in the area, as well as the City Horticulturalist planting 90 River Birch trees.
- 2004 to Present - John Henry has organized annual neighborhood buckthorn busts at Garden Park and in some years in both spring and fall.
- 2005 – 2012 - Kelodale Garden Club organized by Dianne Plunkett Latham donated over \$8,000 to hire professionals to annually remove buckthorn and other noxious weeds at the Edina Art Center and replant it with native trees and wildflowers, with planting assistance from Daughters of the American Revolution, Monument Chapter. Kelodale also donated over \$500 to educate the public about buckthorn and other noxious weeds.
- Fall 2005 Todd Park neighbors, organized by Suzanne Kerwin removed buckthorn at Todd Park.
- Fall 2006 Todd Park neighbors, organized by Suzanne Kerwin removed buckthorn at Todd Park.
- 2006 - A group of neighbors removed buckthorn from the pond at Benton Ave. & Johnson Drive.
- 2006 – Fox Meadow Park – A group of Eagle Scouts removed buckthorn followed by an adjacent resident who donated the funds to have the balance of buckthorn removed in the park.
- 2006 – Wooddale Park led by student Park Board member, Gordon Rolland
- May 2008 - Edina Garden Council removed garlic mustard in the woodland at Arneson Acres Park behind the City greenhouse.
- July 2008 – Kevin Clay led a buckthorn and garlic mustard bust at Lake Cornelia
- Fall 2009 - Neighbors removed buckthorn at Melody Lake
- Winter 2009 – Kevin Clay organized volunteers to girdle female buckthorn trees at Lake Cornelia
- Spring 2010 - George Klus organized a buckthorn bust for Highlands
- 2010 – St John's Park – Buckthorn disappeared suddenly and neighbors are suspected of removing it
- 2011 – Wooddale Park – Led by neighbors
- 2012 – Browndale Park – Led by neighbors
- Fall 2012 – John Howard participated in a buckthorn bust for Wooddale Park