

**CITY OF MENDOTA HEIGHTS  
NATURAL RESOURCES COMMISSION  
Thursday, November 9, 2023 - 6:00 P.M.  
Mendota Heights City Hall – Council Chambers**

**AGENDA**

- 1. Call to Order**
- 2. Roll Call**
- 3. Approval of the Agenda**
- 4. New Business**
  - a. Proposed Ordinance: Urban Forest Management
- 5. Adjourn**

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**DATE:** November 9, 2023  
**TO:** Natural Resources Commission  
**FROM:** Krista Spreiter, Natural Resources Coordinator  
**SUBJECT:** Proposed Ordinance: Urban Forest Management

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### **Background**

As part of Goal 1: Policy and Ordinance Review and Development, the Goal 1 Committee of the Commission has developed a draft of an Urban Forest Management Ordinance, receiving and incorporating feedback from the rest of the Commission. At the September 27<sup>th</sup> Worksession, the Commission reviewed and gave feedback on the draft provided. The current draft has been updated to reflect this feedback and input from the Commission. The commission should review the current draft of the ordinance, and work towards a final draft of the document for recommendation to City Council. Feedback and discussion should consider timelines, staff resources, residents and applicants, as well as enforceability when developing ordinances for recommendation.

### **Requested Action**

The Commission is asked to use the Worksession to discuss and review the draft of the proposed ordinance to be brought to the City Council for recommendation of adoption.

**PRELIMINARY DRAFT – URBAN FOREST MANAGEMENT ORDINANCE**

TITLE XX

TITLE NAME

CHAPTER X

URBAN FOREST MANAGEMENT

SECTION:

X-X-1: PURPOSE AND BENEFITS

X-X-2: DEFINITIONS

X-X-3: STANDARDS

X-X-4: FOREST ALTERATION

X-X-5: FOREST MANAGEMENT PLAN

X-X-6: TREE MITIGATION

X-X-7: DISEASED TREES

X-X-8: ENFORCEMENT

X-X-1: PURPOSE.

Trees and woodlands play an integral role throughout the City of Mendota Heights, providing improved air quality, erosion control, energy conservation, wildlife habitat, cooler surface temperatures, increased property values, and aesthetic beauty. It is therefore the intent of the City of Mendota Heights to protect, preserve, and enhance trees and woodlands within the City, and to encourage a resourceful and prudent approach to development and redevelopment within the city, thereby promoting and protecting public health, safety, welfare and assuring a healthy urban forest into the future.

X-X-2: DEFINITIONS.

The following words, terms and phrases, as used in this division, shall have the meanings ascribed to them in this section:

*American National Standards Institute (ANSI) A300 Tree standards* means standards set forth by the ANSI in Standard A300 that set forth performance standards for the care and maintenance of trees, shrubs, and other woody plants. ANSI A300 Part 6 standards addresses planting and transplanting of trees, shrubs, and woody plants, as well as post-planting care. These standards do not replace or supersede city ordinances.

*Applicant* means developer, builder, contractor, or owner who applies for a forest alteration, land use, grading, or building permit.

*Caliper inch* means a measurement used for nursery stock and in this chapter refers to replacement trees. It is the unit of measurement for defining the diameter of the tree trunk measured six inches above the soil surface for tree trunks four diameter inches or less and measured 12 inches above the soil surface for tree trunks greater than four diameter inches.

*Certified arborist* means an arborist with up-to-date certification by the International Society of Arborists (ISA).

**Clearcutting** means

*Conifer tree* means a woody plant that is a member of the division Pinophyta and at maturity is at least 12 feet or more in height. Conifers are cone bearing and most in our climate keep their leaves (also called needles) year-round. Tamarack (also called larch) is the only native conifer in our climate that drops all of its needles in the fall.

*Control* includes measures to prevent, slow the spread, suppress, eradicate, or destroy a shade tree disease or pests.

**Critical Root Zone (CRZ)** means

*Deciduous tree* means a woody plant, which sheds leaves annually, having a defined crown and at maturity is at least 15 feet or more in height.

*Development* means a project on land, including vacant land, which the construction of structures, improvements, or land use changes has been approved by the City.

*Diameter at Breast Height (DBH)* is a measurement used for trees in the landscape. It is the diameter of a tree trunk as measured at a height of four and one-half feet above ground. To determine diameter, measure the circumference of the tree trunk at four and one-half feet above ground and divide by 3.14.

*Forest* is a stand of significant trees covering at least a quarter acre of ground, where the leaves and branches of trees (forest canopy) shade 75 percent or more of the ground. Forests can be continuous areas covering many acres or can be isolated quarter-acre patches on individual or multiple lots.

*Forest management plan* is a plan that shows all trees located within the area to be developed or within the property. The plan shall include all significant and specimen trees to be preserved and measures taken to preserve them. The plan will also include calculations to determine the number of replacement trees as required by the tree removal, mitigation, and replacement section of this division and a proposed reforestation landscape plan. The plan shall be developed by a forestry or horticultural professional.

*Hazard tree* means a tree that has structural defects that may cause the tree or tree part to fail, and has been determined that such failure could cause property damage or personal injury and has been identified as a hazard tree by an ISA Certified Arborist.

*Invasive species* means species that are not native to Minnesota and cause economic or environmental harm or harm to human health.

**Major home additions means a project...**

**Commented [SW1]:** Insert definition here if we are going to include it under 'Applicability'. We should discuss at work session. Are we defining any expansion of a home's footprint as a major home addition? Are we including sheds, swimming pools, etc.? Let's make it as clear as we possibly can so that it's clear for the community and so that City staff don't need to make judgement calls on what constitutes 'major'.

**Commented [KS2R1]:**

*Native tree* means a tree native to the local ecosystem(s) found in Mendota Heights and immediate surrounding area, is naturally found in the area, is suited to the local climatological conditions, and is not an introduced, exotic, noxious, or invasive species.

*Natural Resources Coordinator* means a natural resources professional who is employed by the city or appropriate agent or independent contractor designated by the city administrator.

*Redevelopment* means a project on non-vacant land, which the construction of structures, improvements, or land use changes has been approved by the City.

*Shade tree* means a woody perennial that at maturity is at least 15 feet in height and grown primarily for aesthetic or environmental purposes.

*Significant tree* means a healthy tree measuring a minimum of six inches in diameter for deciduous trees, 10 feet in height for conifer trees, and is not considered hazardous. Buckthorn or other noxious, invasive, woody plants or trees as determined by the Natural Resources Coordinator are not considered a significant tree species at any diameter.

*Specimen tree* means a tree of any native species or cultivar of a native species that is 28 inches in diameter or greater, except invasive species. Specimen trees are healthy trees that are likely to have a life expectancy of greater than ten years, have a relatively sound and solid trunk with no extensive decay or hollow, and have no major insects, pathological problem, or defects. Specimen trees are valued for their size and their legacy.

**Commented [KS3]: LK:** Do we want to revise this to "any species"? Regardless of native or not, there's value as a specimen tree when over 28 inches

*Structure* means anything manufactured, constructed, or erected which is normally attached to or positioned on land, including portable structures.

*Tree Pest* means any vertebrate or invertebrate animal, plant pathogen, or plant that is determined by the City to be harmful, injurious, or destructive to trees or community forests.

*Utility* means electric, telephone, cable television, water, sanitary or storm sewer, solid waste, gas or similar service operations.

*Vacant Lot* means a lot or parcel located within the city that contains no buildings or structures of a temporary or permanent nature.

~~*Woodlot* means a treed area of at least one-quarter acre on a vacant lot, which includes significant and/or specimen tree(s).~~ (LK)

X-X-3: STANDARDS.

American National Standards Institute (ANSI) A300 shall be followed in the planting, transplanting, and care of trees and other woody species. The Natural Resources Coordinator shall have the authority to develop additional tree standards concerning the management of trees when necessary. These standards shall not contradict this chapter.

X-X-4: FOREST ALTERATION.

- A. Forest alteration permit. A forest alteration permit application is required to be submitted to the City's Natural Resources Coordinator for review prior to removing any significant living trees as part of a development or redevelopment project **or on an existing vacant lot**. The applicant shall submit a forest management plan containing all requirements listed in X-X-5, and other necessary information to determine compliance with this chapter. An application fee, as well as escrow fee, shall be required as established annually by the City Council. Failure to obtain an approved forest alteration permit application and forest management plan prior to removing significant or specimen trees will result in a tree replacement requirement that assumes all trees removed were significant trees, and/or escrow fee forfeiture.
- B. Forest alteration permit appeal process. If the forest alteration permit is denied by the Natural Resources Coordinator, the applicant may appeal the decision. The appeal shall be submitted in writing, along the argument(s) for appeal, and received by the City within 15 days of denial. The City Council will review the appeal at its next available City Council meeting for final decision of the appeal.
- C. Tree replacement escrow. The applicant shall post a tree replacement escrow with the City in the amount of \$1,750.00, or 125% of estimated cost to accomplish compliance with an approved forest management plan, whichever is greater. The escrow will be held by the City until successful completion of final planting inspection, assurance that the trees have survived for at least one growing season, and are covered by at least a one-year warranty for replacement. The escrow may be held for longer to ensure viability of trees. Once the escrow is reimbursed to the applicant, it is still the applicant's responsibility to maintain the replacement trees for three years after planting during the three-year maintenance period.

#### X-X-5: FOREST MANAGEMENT PLAN REQUIRED.

A forest management plan is required with the submittal of a forest alteration permit application. The forest management plan should reflect the applicant's best effort to determine the most feasible and practical layout of buildings, parking lots, driveways, streets, storage and recreational facilities, and other physical features, so as to remove or damage the fewest significant trees and minimize the negative environmental effects caused by loss of tree canopy. This section shall apply to any applicant that requests a forest alteration, land use, grading, or building permit, including a building permit for major home additions. This includes all sites of new development or redevelopment that contain significant trees or forests.

- A. Forest Management Plan Applicability
  - 1. A forest management plan is required for any significant tree removal **on any vacant lot**, or as a part of any project which requires a forest alteration permit or significant tree removal, such as a land use, grading, or building permit.
- B. Forest Management Plan Requirements
  - 1. The forest management plan shall include the following:
    - a. A forest and significant tree inventory overlaid on site plans that shows size, species, general health, and location of all significant trees located within the property where tree removal is proposed.
    - b. A list of total diameter inches of all healthy significant and specimen trees inventoried.

c. A list of the total diameter inches of healthy significant and specimen trees proposed for removal. **Specimen trees shall not be proposed for removal. (LK)**

**Commented [KS4]:** LK: c. A list of the total diameter inches of healthy significant trees proposed for removal. Specimen trees shall not be proposed for removal.

d. Location of trees preserved and the proposed measures for protection, including delineation of tree protection fencing, tree protection signs, location for material storage, parking, debris storage, and wash-out area for cement trucks.

e. Protection measures for replacement trees being planted in areas with high deer population.

f. The name(s), telephone number(s), and address(es) of the person(s) responsible for tree preservation during the course of the development project.

g. Size, species, number, and location of all replacement trees and woody shrubs proposed to be planted on the property in accordance with in accordance with **D. Significant Tree Replacement Calculation and X.X.6 Tree Mitigation.**

**Commented [LK5]:** I'm not sure that's how this section should be referenced in the ordinance, but I think this is a good place to point to those calculations and the Tree Mitigation section

h. The outer boundaries shown of all forest areas of one-quarter acre and larger.

i. Indications of the known presence of any tree pests and diseases.

j. Locations of standing, dead or diseased significant trees.

k. Locations of proposed building, structures, and impervious surfaces.

l. Grading, land disturbance, clearing, and trenching limits.

m. A three-year tree maintenance and preservation plan.

#### C. Exemptions

1. Minor home additions, general home improvements, and construction of accessory structures. **Accessory structures can be pretty large. I am not sure that we want to exempt them. But then I'm also not sure how an accessory structure is defined in ordinance. But I could easily see that we could lose some important trees to accessory structures. (HS)**

2. Tree removal related to public improvement projects, including but not limited to: road reconstruction and improvement, parks, infrastructure work or repair, stormwater treatment projects, and utility work or repair.

3. Emergency work to protect public health.

4. Removal of **dead, dying, or diseased trees**, unless those trees were planted as part of a forestry management or other tree replacement plan, in which case they shall be replaced based on the requirements of the approved plan.

**Commented [LK6]:** Did we discuss adding hazardous, storm damaged trees somewhere here too?

5. Disturbance of the forest canopy recommended as part of a forest management plan approved by the City's Natural Resources Coordinator.

6. Tree removal as part of an approved native vegetative community restoration plan to restore or enhance native woodlands, savannas, prairies, or wetland areas.
7. Removal of non-native trees that the City deems are invasive or noxious.
8. Commercial tree nursery and landscape operations.

#### D. Safeguarding Preserved Trees

All development and redevelopments in the city shall be designed with the preservation of the urban forest, natural woodlands, and significant trees in mind. The following criteria will be considered to ensure survival of trees scheduled to be preserved:

- a. Size of lot or project to be developed.
- b. Tree size.
- c. Species, role, and health of trees.
- d. Tree life span.
- e. Sensitivity to disease.
- f. Nuisance characteristics.
- g. Sensitivity to grading and grade change.
- h. Transplanting potential.
- i. Effects on the functioning of a development.

Prior to issuance of a grading or building permit the Natural Resources Coordinator may require one or all the following measures be used to safeguard preserved trees:

- 1) Tree protective areas shall be designated at a minimum of the CRZ of trees or drip line, whichever is greater, whenever possible. Saving forests and groups of trees is encouraged over protecting individual trees scattered across the site.
- 2) Layout of the project site utility and grading plans shall accommodate the forest and tree preservation areas. Utilities are recommended to be placed along corridors between tree preservation areas and use of common trenches or tunnel installation if possible.
- 3) Custom grading, retaining walls, or tree wells to maintain existing grade for preserved trees should be utilized.
- 4) Suitable tree protection fencing in active areas includes use of orange polyethylene laminar safety fencing, woven polyethylene fabric (silt fencing), or similar high visibility fencing. Fencing shall be self-supportive. Tree protection fencing shall be maintained and repaired by the applicant for the duration of construction.
- 5) Use of passive forms of tree protection may be allowed, such as continuous heavy-duty rope or flagging (heavy plastic four inches or wider) or other easily recognized barriers to vehicles and people.
- 6) Active tree protection areas with "Tree Save Area" signs posted and readable from at least ten feet away.



7) Additional protection, signage, and buffer distances around specimen trees in order to protect their value and legacy.(LK)

- 8) Minimize tree wounding by felling or removing trees in a direction away from preserved trees.
- 9) Construction site activities such as parking, material storage, concrete washout, placement of holes, etc., shall be arranged so as not to encroach on tree preservation areas.
- 10) Measures such as deep mulching may be required if root pruning or root compaction will occur.
- 11) Identify and prevent oak wilt infection. Treat all known oak wilt infected areas with current accepted guidelines including root cutting and removal of infected trees. If pruning oaks is required between April 1 and July 31, fresh wounds shall be covered with nontoxic tree wound sealant or latex paint.

**Commented [LK7]:** Should we reference a resource here like we've done elsewhere? The MN DNR has an Oak Wilt Guide here: [https://www.dnr.state.mn.us/treecare/forest\\_health/oakwilt/management.html](https://www.dnr.state.mn.us/treecare/forest_health/oakwilt/management.html)

**Commented [LK8]:** I remember we discussed this at our Sept work session. I think we wanted to shift this to July 31 or maybe longer...

All developments and redevelopments in the City shall be designed to preserve forests and significant trees, where such preservation would not adversely affect the public health, safety, or welfare of Mendota Heights citizens. The city may prohibit removal of all or a part of a forest or of significant trees.

If any significant tree designated as preserved in the approved forest management plan is cut, damaged, or encroached upon during the construction process without city authorization and if it is determined by the Natural Resources Coordinator that the damaged tree will not survive, the said damaged tree shall be removed by the applicant at their expense and replacement trees installed at a rate of two times the tree replacement calculations as described below.

E. Significant Tree Replacement

- 1. If less than 20 percent of the total significant tree DBH inches on the property is removed, the applicant shall replace one tree per significant tree removed. Replacement trees shall be a minimum of one caliper inch in size.
- 2. If 20 percent or more of the total significant tree DBH inches is removed, the applicant shall mitigate all significant tree DBH inches using the following formula:

A= Total DBH inches of significant trees removed due to land alteration

B= Total DBH inches of significant trees located on the property

C= Tree replacement constant (1.5)

D= Total DBH inches of specimen trees saved (for each one DBH inch of significant tree saved=1/2 DBH inches)

E= Replacement trees (#of caliper inches)

$$(((A/B - .2) \times C) \times A) - [D/2] = E$$

#### X-X-6: TREE MITIGATION

The applicant shall mitigate loss of significant trees by planting replacement trees in appropriate areas on the property in accordance with section D. Significant Tree Replacement Calculation and as indicated in the applicant's approved forest management plan. Trees shall not be planted within 15 feet of property lines without written permission of the affected adjacent property, nor shall trees be planted at lot corners in a way that obstructs a driver's line of sight. If the replacement requirement is not feasible, the city Natural Resources Coordinator can approve additional tree replacement steps, including a fee assessment to be used toward to the City's tree planting fund. The City may require post-construction tree care.

In order to preserve diversity and provide protection from tree disease and pests; where ten or more replacement trees are required, not more than 20 percent shall be of the same family, not more than 10 percent of the same genus, and not more than 5 percent of the same species, unless approved by the City's Natural Resource Coordinator. Tree species of the genus *Acer* shall be limited to 10 percent of total replacement trees planted, due to its over-abundance in the City's forest canopy. A minimum of 50 percent of replacement trees must be species native to Minnesota or recommended by the Department of Natural Resources or University of Minnesota Extension. Planting of trees recommended from the Minnesota Department of Natural Resources' [Best Native Yard Trees for our Changing Climate \(state.mn.us\)](https://state.mn.us/dnr/best-native-yard-trees-for-our-changing-climate) or the [Climate Change Response Framework](#) is encouraged. All replacement trees shall be healthy and free from insect or disease infestations. Replacement trees shall be no less than a one-caliper inch deciduous or six-foot height conifer tree unless approved by the City's Natural Resources Coordinator. No more than three consecutive trees of the same species may be planted in a continuous row, including around corners and in groupings.

It is the applicant's responsibility to maintain the replacement and preserved trees for at least three years. The City may require additional post construction tree care mitigation for preserved and replacement trees.

The following woody plant species are considered invasive, and are prohibited from city plantings and on development and redevelopment projects:

- Amur maple (*Acer ginnala*)
- Norway maple (*Acer platanoides*)
- Tree of heaven (*Ailanthus altissima*)
- Japanese barberry (*Berberis thunbergii*)
- Siberian pea shrub (*Caragana arborescens*)
- Oriental bittersweet (*Celastrus orbiculatus*)
- Russian olive (*Elaeagnus angustifolia*)
- Autumn olive (*Elaeagnus umbellata*)
- Winged burning bush (*Euonymus alatus*)
- Glossy buckthorn (*Frangula alnus*)

- Non-native bush honeysuckles (*Lonicera tatarica*, *L. morrowii*, *L. x bella*, and *L. maackii*)
- White mulberry (*Morus alba*)
- Amur cork tree (*Phellodendron amurense*)
- White poplar (*Populus alba*)
- Common buckthorn (*Rhamnus cathartica*)
- Black locust (*Robinia pseudoacacia*)
- Multiflora rose (*Rosa multiflora*)
- Siberian elm (*Ulmus pumila*)
- Japanese Tree Lilac (*Syringa reticulata*)

Trees that are overly susceptible to diseases that cause tree death, such as Dutch Elm Disease or Emerald Ash Borer, should not be planted unless they are a resistant variety or cultivar.

Replacement trees should be of a similar species to the tree it is replacing and appropriate for the planting location; including soil, moisture, and sunlight conditions. Replacement trees shall consist of certified nursery stock as defined by current Minnesota Statutes and shall be hardy for USDA plant hardiness zones 4 or 5. Trees shall be planted in accordance with the American National Standard for Tree Care Operations – ANSI A300, Part 6.

#### X-X-7: DISEASED TREES

The health of trees in the City is threatened by tree pests, which can result in hazardous trees that cause property damage or personal injury. The loss of trees, or presence of diseased and hazardous trees on public and private property depreciates the value of property within the City and impairs the safety and general welfare of the public. In accordance with MN State Statutes 89.01, and 89.51-.64, the provisions of this section are adopted as an effort to control and prevent the spread of tree pests.

The Natural Resources Coordinator may declare any vertebrate or invertebrate animal, plant pathogen, or plant in the community threatening to cause significant damage or death to trees in the community to be a tree pest and prescribe control measures to effectively eradicate, control, or manage the tree pest as defined by MN Stats. 89.001.

The Natural Resources Coordinator may notify in writing the owner of record or occupant of the premise that a diseased or hazard tree exists. The notice may specify required abatement measures to be taken to abate the nuisance in accordance with City Code 4-1-5. When removing and managing diseased trees, property owners shall follow any diseased tree management plans that are put forth by the City, Dakota County, or the State of Minnesota and comply with all quarantine requirements and restrictions.

If a diseased, nuisance or hazard tree exists within publicly-owned property or rights-of-way, including boulevard trees, the City may remove, at any time, diseased, nuisance or hazard trees without the permission of, or notice to, adjacent property owners.

**X-X-8: ENFORCEMENT**

The City shall be responsible for the enforcement of this chapter and determine any violations. All land use, building, and grading permits shall be suspended until the applicant has corrected a violation. The city reserves the right to inspect the site or property at any reasonable time for compliance with the forest management plan and forest alteration permit. If the city finds the site in violation, the city may issue a stop work order until conditions are corrected. Conditions that are not corrected within the required timeframe may result in forfeiture of escrow.