

## **SECTION 300.25. SHORELAND DISTRICT.**

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### **1. Purpose.**

The purpose of the shoreland district is to recognize, preserve, protect and enhance the environmental, recreational and hydrologic resources and functions of the city's lakes and tributary creeks by regulating the use of both the public waters and adjacent land. In order to promote the general health, safety and welfare, certain protected waters in the city have been given a shoreland management classification by the Minnesota department of natural resources and the city of Minnetonka. The intent of the shoreland district is to apply the regulations and standards to public waters and adjacent land as an overlay zone, further regulating the use of land as allowed by other districts of this ordinance.

### **2. Classifications of Protected Shoreland Areas.**

The Minnesota department of natural resources has assigned a shoreland management classification status to public water. Public water classifications as defined by the Minnesota Department of Natural Resources and the city of Minnetonka include the following:

- a) **Recreational Development.** Recreational development lakes (RD) are characterized by moderate levels of recreational use and existing development. Many of these lakes have capacities for accommodating additional development and recreational use.
- b) **General Development.** General development lakes (GD) have high levels and mixes of existing development. These lakes are extensively used for recreation and heavily developed around the shore.
- c) **Tributary Creeks.** Tributary creeks (TR) consist of all watercourses mapped in the Minnesota department of natural resources public waters inventory including the Minnehaha Creek, the Nine Mile Creek, the south fork of the Nine Mile Creek, the Purgatory Creek including both branches, and the public watercourse that flows out of Glen Lake. These creeks include those defined as tributary rivers by the Minnesota department of natural resources.
- d) The following classifications of public waters have been assigned by the Minnesota department of natural resources and the city of Minnetonka:

<b>Lake Name</b>	<b>Classification</b>	<b>Lake Name</b>	<b>Classification</b>
Windsor (27-82P)	RD	Wing (27-91P)	RD

**Minnetonka Code of Ordinances**

Libbs (27-85P)	GD	Rose (27-92P)	RD
Shavers (27-86P)	RD	Glen (27-93P)	RD
Mud (Minnetoga) (27-88P)	RD	Lone (27-94P)	RD
Shady Oak (27-89P)	RD	Minnetonka (27-133P)	GD
Holiday (27-90P)	GD	Crane (27-734P)	GD
Gleason (27-95P)	RD		

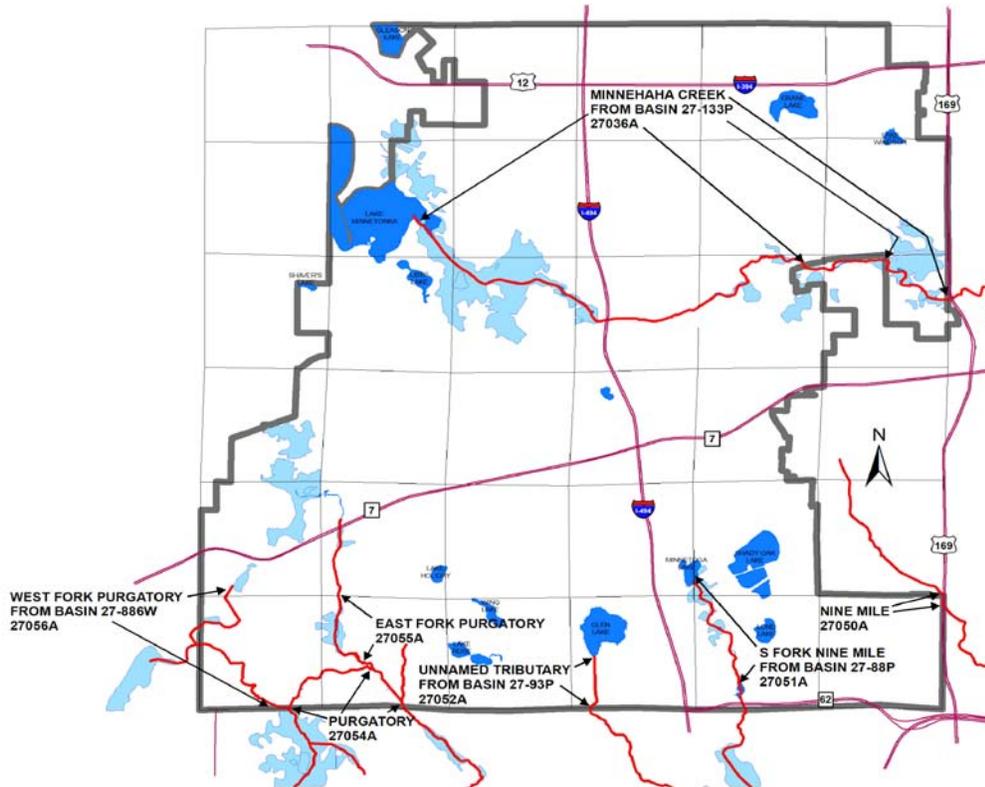
**Tributary Creek**

**Classification**

Minnehaha Creek (27-036a)	TR
Purgatory Creek (27-054a)	TR
Purgatory Creek, Eastern fork (27-055a)	TR
Purgatory Creek, Western fork (27-056a)	TR
Nine Mile Creek (27-050a)	TR
Nine Mile Creek, Southern fork (27-051a)	TR
Unnamed tributary flowing south from Glen Lake (27-052a)	TR

e) The following map illustrates the public waters to which the shoreland ordinance applies:

## Minnetonka Code of Ordinances



Disclaimer: This graphic represents the general locations of the public waters as defined by the DNR's public waters inventory.

### 3. Description of Shoreland District.

The shoreland district consists of:

- a) land containing or abutting public waters and assigned a shoreland management classification by the Minnesota Department of Natural Resources or the city of Minnetonka; and
- b) land located within the following distances from public water:
  - 1) 1,000 feet from the ordinary high water level (OHWL) of a lake;
  - 2) 300 feet from OHWL (top of bank) of a tributary creek, or the upland edge of the floodplain designated by ordinance, whichever is greater.

Properties or portions of properties may be exempt from the requirements of the shoreland district if the drainage and runoff patterns from the properties are directed outside of the drainage basin of the public water as a result of a natural topographic divide. This exemption determination will be made by the city engineer.

## Minnetonka Code of Ordinances

### **4. Permitted uses at or Below the Ordinary High Water Level and within Shore and Bluff Impact Zones.**

At or below the ordinary high water level, and within shore and bluff impact zones, no land may be used except for one or more of the following uses:

- a) residential yards;
- b) wildlife and nature preserves;
- c) public and private parks;
- d) pervious hiking and skiing trails;
- e) public utilities;
- f) public and approved flood control structure, ponding and drainage facilities and associated accessory appurtenances;
- g) environmental monitoring or control facilities, including those related to water quality and wildlife regulation;
- h) docks no wider than 8 feet unless a permit is obtained from the Minnesota department of natural resources, boat lifts and mooring structures;
- i) foot bridges over a creek if it does not obstruct passage or block navigation and is permitted by the Minnesota department of natural resources;
- j) beaches;
- k) public fishing piers;
- l) soil stabilization techniques permitted by the Minnesota department of natural resources; and
- m) retaining walls if needed to control existing conditions of erosion as field verified by staff, but only if there is absolutely no other alternative to protect the integrity of the slope.

### **5. Conditional Uses at or Below the Ordinary High Water Level and within Shore and Bluff Impact Zones.**

At or below the ordinary high water level and within shore and bluff impact zones, land may be used for the following only by conditional use permit and only in conformance with the standards specified in section 300.26 of this code:

- a) private and public recreational uses, including golf courses, ballfields, playfields, picnic

**Minnetonka Code of Ordinances**

grounds, boardwalks, impervious trails, non-motorized public water craft landings, marinas, and boat ramps; or

- b) private ponding and drainage facilities.

**6. Uses on Lands Outside the Shore and Bluff Impact Zones.**

Permitted and conditionally permitted uses on lands outside the shore and bluff impact zones are those uses allowed and regulated by applicable underlying zoning districts.

**7. Shoreland District Standards, Based on Classifications.**

The following standards apply to all land within the shoreland district based on proximity to the specified classifications:

	<b>General Development (GD)</b>	<b>Recreational Development Creeks(RD)</b>	<b>Tributary (TR)</b>
a) Minimum lot area for riparian lots:	22,000 square feet	22,000 square feet	22,000 square feet
b) Minimum lot area for non-riparian single family homes, R-1:	22,000 square feet	22,000 square feet	22,000 square feet
c) Minimum lot area for non-riparian single family homes, R-2:	15,000 square feet	15,000 square feet	15,000 square feet
d) Minimum lot area for non-riparian duplexes, R-2:	20,000 square feet	20,000 square feet	20,000 square feet
e) Minimum lot area for non-riparian triplexes, R-3:	10,890 square feet	10,890 square feet	10,890 square feet
f) Minimum lot area for non-riparian			

**Minnetonka Code of Ordinances**

	multi-family residential units, R-3, R-4, and R-5:	30,000 square feet	30,000 square feet	30,000 square feet
g)	Minimum water frontage at lot line:	75 feet	75 feet	75 feet
h)	Elevation of the lowest floor above the OHWL:	2 feet	2 feet	2 feet
i)	Minimum setbacks from the OHWL for principal structures, and accessory structures, including decks, patios, tennis courts, sport courts, swimming pools (including the apron of the pool), walls, retaining walls (unless permitted due to existing conditions of erosion) and any fence that obstructs lake views such as picket or privacy fence:	50 feet	75 feet	50 feet

Fences that are 6 feet in height or less and do not obstruct views such as chain link or wrought iron can extend up to the OHWL but not into any adjacent wetland.

j)	Maximum height of structures:	35 feet	35 feet	35 feet
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If a variance is requested from this standard the city may consider, in addition to other relevant factors, the following criteria in order to minimize the shoreland impact:

- 1) proximity to the public water;
- 2) screening of structures and vehicles as viewed from the water in summer leaf-on conditions;
- 3) amount of open space;
- 4) amount and location of water quality treatment systems that are beneficial to the

**Minnetonka Code of Ordinances**

receiving public water; and

5) methods that implement shoreland management strategies to protect the public water, which may include vegetative protection and enhancement, creation of wildlife habitat, or water quality enhancement strategies.

k)	Maximum impervious surface coverage for the portion of land on a lot that is within 150 feet of OHWL:	30 percent	30 percent	30 percent
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l)	Maximum impervious surface coverage for the portion of land on a lot that is beyond 150 feet of OHWL:	75 percent	75 percent	75 percent
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The city may allow credit for pervious hard surfaces such as pavers or pervious concrete to the extent of the proven infiltration rate for the pervious pavement area. For example if pervious pavers are installed in an area totaling 100 square feet, and the pavers are proven to infiltrate 14 percent of the area, up to 14 square feet may be subtracted from the impervious surface coverage.

m)	Minimum structure setback from top of bluff, when the grade of the bluff is at least 30 percent or greater, except for structures built on post footings, stairways and landings:	30 feet	30 feet	30 feet
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(Amended by Ord. 2011-30, adopted December 19, 2011)

**8. Shoreland District Standards, General.**

The following standards apply to all land in the shoreland district:

a) Water oriented accessory structures:

1) must not exceed 120 square feet in size, or 10 feet in height, exclusive of safety rails. Detached decks must not exceed eight feet above grade at any point;

## Minnetonka Code of Ordinances

- 2) must be setback from the OHWL 10 feet;
  - 3) must meet the standards of sections 300.23 and 300.24;
  - 4) must not exceed one per lot;
  - 5) must be treated to reduce visibility as viewed from the public water and adjacent shorelands by vegetation, topography, increased setbacks, or color, assuming summer-leaf on conditions;
  - 6) must not be designed or used for human habitation and must not contain a water supply or sewage treatment facilities;
  - 7) cannot be used principally for water craft storage; and
  - 8) may use the roof as a deck with safety rails, but not with enclosed walls or as a storage area.
- b) The person proposing any land altering activity on a riparian property, such as building a structure, road or driveway, or grading activity, that will impact a topographic area having an average slope of 12% or more measured over a horizontal distance of 50 feet or more, must demonstrate that the land altering activity will not impact the public water regulated by this section and must;
- 1) demonstrate that soil erosion will not occur as a result of the project activity;
  - 2) demonstrate preservation of the existing vegetation to the extent practical; and
  - 3) provide screening of structures such as buildings and vehicles as viewed from the water in summer leaf on conditions.

In no instance is land altering activity on a riparian property allowed on a slope averaging 20% or greater if it will have an adverse impact on the public water regulated by this section, such as erosion, loss of vegetation, or loss of screening as viewed from the lake. If the applicant can demonstrate that the land altering activity will not have an adverse impact on the public water then the activity must comply with the section 300.28 subsection 20, the steep slope ordinance. Stairways, landings and permitted retaining walls are exempt from this requirement.

c) All impervious surface runoff must be treated in accordance with the requirements of the city and appropriate watershed district. Treatment may include site retention, skimmers, weirs, infiltration basins, storm water sedimentation ponds of appropriate scale, or other acceptable methods. Facilities serving this purpose must be properly maintained and serviced by the property owner.

d) Discharge into the public waters must occur at a rate no greater than the rate allowed by the city engineer in accordance with the city's water resources management plan and appropriate

## Minnetonka Code of Ordinances

watershed district requirements.

e) All construction projects must provide erosion and sediment control as required by the city.

f) No building permit will be issued by the city for the construction or alteration of any principal structure on property adjoining a lake or tributary creek if that structure is not served by the city's sanitary sewer system.

g) No structure may be placed nearer than 50 feet from the boundary of an unplatted cemetery or significant historic site protected under Minnesota statute section 307.08 unless necessary approval is obtained from the Minnesota state historic preservation office.

h) Each lot wholly or partially within the shoreland district and created through a subdivision must be suitable in its natural state for the proposed use with minimal alteration. Suitability analysis by the city must consider susceptibility to flooding, existing wetlands, soil and rock formations with severe limitations for development, severe erosion potential, steep topography, near-shore aquatic conditions unstable for water-based recreation, important fish and wildlife habitat, presence of significant historic sites, or any feature of the natural land likely to be harmful to the health, safety, or welfare of future residents of the proposed subdivision or the community.

i) Roadways, parking areas, driveways and trails must meet the following standards:

1) Where feasible, all roadways, parking areas, driveway areas, trails and any retaining wall if it is structurally integral to the construction of these items must meet the setback requirements established for principal structures. If no feasible placement alternative exists, they must be designed to minimize adverse impacts to the public water and must not be constructed in the shore or bluff impact zones except as allowed under subdivision 5 of this section.

2) Roadways and drives may cross a public water. Footings for bridges may be allowed in the shore or bluff impact zone if they are designed to minimize adverse impacts to the public water.

3) Vehicles may not be parked in shore or bluff impact zones.

4) Vegetation must be used to screen parking areas when viewed from the water.

j) Stairways, lifts, and landings must meet the following standards:

1) Stairways and lifts are the preferred alternative to major topographic alterations for achieving access up and down bluffs and steep slopes to shore areas.

2) Stairways and lifts must not exceed six feet in width on residential lots. Wider stairways may be used for commercial properties and public open space recreational properties if approved as part of the site plan.

## **Minnetonka Code of Ordinances**

3) Landings for stairways and lifts on residential lots must not exceed 32 square feet in area. Landings larger than 32 square feet may be used for commercial properties and public open space recreational properties if approved as part of the site plan.

4) Canopies or roofs are not allowed on stairways, lifts or landings.

5) Stairways, lifts and landings may be either constructed above the ground on posts or pilings, or placed into the ground, provided they are designed and built in a manner that ensures control of soil erosion.

6) Facilities such as ramps or mobility paths for physically handicapped persons are also allowed for achieving access to shore areas, provided that the dimensional and performance standards in items 2) through 5) are met.

k) Controlled access lots except those that existed prior to March 24, 2008, must meet the following standards:

1) Lots intended as controlled accesses to public waters for use by owners of non-riparian lots are permissible if they meet or exceed all of the standards below.

2) They must meet the width and size requirements for single family residential lots and be suitable for the intended uses of controlled access lots.

3) They must be jointly owned by all purchasers of lots in one subdivision or by all purchasers of non-riparian lots in one subdivision who are provided riparian access rights on the access lot.

4) The maximum number of watercraft docking or mooring at any controlled access lot is limited to six unless the width of the lot (keeping the same lot depth) is increased by one third of the required riparian frontage for every additional dock or moored watercraft.

5) Covenants or other legal instruments must be executed, specifying which owners have authority to use the access lot and what activities are allowed. These activities cannot significantly conflict with general public use of the public water.

(Amended by Ord. 2011-30, adopted December 19, 2011)

### **9. Exceptions to Structure Setback and Impervious Surface Requirements.**

The following are exceptions to the setback and impervious surface requirements for structures:

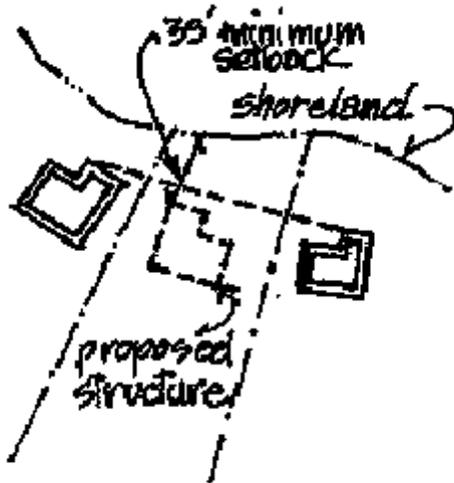
a) Setback requirements from the ordinary high water level do not apply to piers, permitted docks, boat lifts, and mooring structures. The location of these structures is controlled by applicable state and local regulations. or docks. The location of piers and docks shall be controlled by applicable state and local regulations.

## **Minnetonka Code of Ordinances**

- b) There is no setback from the ordinary high water level or from top of bluff for overhead utility poles and lines that are less than two feet in diameter, underground utility lines and distribution equipment, fences, light poles, traffic signals, traffic regulatory signs, mailboxes, and other equipment that is associated with an essential public service.
- c) There is no setback from the OHWL or from top of bluff for stairways and landings no wider than 6 feet on residential lots and for stairways and landings on commercial properties or public open space recreational properties if approved as part of a site plan.
- d) Shoreland R-1 lots of record existing as of February 12, 1966 may maintain the following reduced setbacks from the OHWL under the following conditions but must comply with all other setbacks:
- 1) The setback for the principal structure and accessory structures including tennis courts, sport courts, swimming pools (including the apron of the pool), walls, retaining walls (unless permitted due to existing conditions of erosion) and any fence that obstructs lake views such as picket or privacy fence, may be determined by a line drawn from the closest shoreward corners of the two immediately adjacent principal structures, as long as there is a minimum setback of 35 feet for principal structures and accessory structures.
  - 2) The setback for an unenclosed or uncovered attached deck or patio may be determined by a line drawn from the closest shoreward corners of the two immediately adjacent principal structures or any attached deck or patio to that principal structure, as long as there is a minimum setback of 25 feet.

If one of the adjacent lots is vacant, the closest shoreward corner of the principal structure on the nearest developed lot past the vacant lot will be substituted for the vacant lot.

### **Figure 25**



e) In order to qualify for one of the above setback exceptions, the applicant must provide documentation acceptable to the city to verify adjacent and average setbacks.

#### **10. Additional Standards for a Planned Unit Development.**

The applicant for a planned unit development (PUD) that is wholly or partially in the shoreland district must meet the following requirements in addition to the requirements of section 300.22:

a) If the property is already fully developed under its current zoning status but is being redeveloped, the project must:

1) preserve the natural features on the site and comply with the city's ordinances and standards designed to protect the natural environment, including regulation pertaining to steep slopes, trees, wetlands, and floodplains; and

2) provide open space that is at least twenty percent of the total project area. Open space is defined as land in its undeveloped state except that passive recreational uses such as trails or picnic areas may be included in the open space calculation;

b) If a property is undeveloped or could be further subdivided under its current zoning status, then 50 percent of the natural area must be preserved as designated by the city. This area must be protected by a conservation easement or restrictive covenants;

c) In the case of either (a) or (b), impervious cover within the PUD cannot exceed 40 percent. All impervious cover must also comply with this section.

#### **11. Alteration of Shoreland.**

## **Minnetonka Code of Ordinances**

The removal of natural vegetation within shore and bluff impact zones must be restricted to prevent erosion into public waters, to consume nutrients in the soil and to preserve shoreland aesthetics. Removal of natural vegetation, grading and filling in the shoreland district is subject to the following provisions:

- a) intensive clearing, as defined in this ordinance, of natural vegetation within shore and bluff impact zones is prohibited;
- b) in shore and bluff impact zones, limited clearing of trees and shrubs and cutting, pruning and trimming of trees is allowed to provide a view to the water from the principal structure, to control noxious or invasive vegetation, or to accommodate the placement of stairways and landings, picnic areas, access paths, beach and watercraft access areas, and permitted water - oriented facilities, provided that:
  - 1) structures, vehicles, or other facilities are screened as viewed from the water, assuming summer, leaf-on conditions.
  - 2) existing shading of water surfaces is preserved along tributary creeks; and
  - 3) natural vegetation must be restored during and after all construction projects to retard surface runoff and soil erosion.

The above provisions are not applicable to the removal of trees, limbs, or branches that are dead, diseased, or pose safety hazards.

- c) any grading, filling or excavation in the shoreland district which will change or diminish the course, current or cross-section of a public water must be approved by the Minnesota Department of Natural Resources.

### **12. Administration.**

The city must notify and supply the Minnesota Department of Natural Resources with plans and information as follows:

- a) notices of public hearings for all variances, and conditional use permits in shoreland districts must be submitted at least 10 days prior to such hearings;
- b) a copy of the final decision regarding variances or conditional use permits must be submitted within 10 days after a decision has been made;
- c) all preliminary plats within the shoreland district must be submitted at least 10 days before the meeting;
- d) all approved final plats must be submitted within 10 days after a decision has been made; and

## Minnetonka Code of Ordinances

e) when a variance, CUP or preliminary plat in the shoreland district is approved after the department of natural resources has formally recommended denial in the hearing record, the notification to the department of natural resources of the approval must also include the findings of the planning commission or city council which supported the approval.

(Amended by Ord. 2012-07, adopted June 25, 2012; Ord. 2008-08, adopted March 24, 2008; amended by Ord. #2004-27, adopted August 23, 2004; amended by Ord. #2004-26, adopted August 23, 2004)

### 19. Tree Protection.

a) Purpose. The goal of this subdivision is to preserve as much as practical Minnetonka's highly valued tree natural resources, ecosystems and viewsheds, while allowing reasonable development to take place and not interfering with how existing homeowners use their property. This subdivision provides incentives for property owners who wish to subdivide areas that include woodlands and high priority trees to use planned unit development (PUD), which allows the flexibility to both protect woodlands and property rights. Standards governing the preservation, protection, and planting of trees are necessary to:

- 1) prevent tree loss by eliminating or reducing compaction, filling or excavation near tree roots;
- 2) prevent or reduce soil erosion and sedimentation and stormwater runoff;
- 3) improve air quality and reduce noise pollution;
- 4) enhance energy conservation through natural insulation and shading;
- 5) control the urban heat island effect;
- 6) increase and maintain property values;
- 7) maintain buffers between similar land uses and establishing and maintaining buffers between conflicting land uses; and
- 8) preserve as much as practical the diversity and extent of the trees and woodlands that are an integral part of this city's identity, while allowing reasonable development and allowing existing homeowners freedom to use their land.

b) Definitions. For the purposes of this subdivision, certain terms and words are defined as follows:

- 1) "Basic Tree Removal Area" - consists of the following:
  - a. within the areas improved for reasonably-sized driveways, parking areas

## Minnetonka Code of Ordinances

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.

2) "Canopy" - The uppermost layer of a forest, formed by tree crowns.

3) "Critical root zone" - the 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 ( $10 \times 1.5 = 15$ ).

4) "Diameter breast height (dbh)" - the diameter of a tree measured at 4.5 feet above the base of the tree. Multi-stem trees are considered one individual tree and each stem must be measured 4.5 feet above the base of the stem and added together to determine the diameter of the multi-stem tree.

5) "Protected tree" - a tree that is in a woodland preservation area, or is a high priority tree or significant tree.

6) "Redevelopment" -- reconstruction of the principal structure if it includes the removal of the principal structure by more than 50% of the square footage of the building footprint or an increase of the square footage of the building footprint by more than 50%.

7) "Sapling" - A young tree.

8) "Understory" - The trees, shrubs, and herbaceous plants that grow in the shade of the forest canopy, including trees that could potentially grow to reach the canopy.

9) "Woodland preservation area" - a remnant woodland ecosystem that is at least two acres in size regardless of property boundaries, is generally mapped in the city's Minnesota Land Cover Classification System, and although it may be degraded it generally meets the criteria for one of the following types of ecosystems as reasonably determined by the city:

a. "floodplain forest" - an area populated by deciduous tree species tolerant of seasonal flooding and deposition of silty or sandy soils. The canopy cover is extremely variable, and mature trees are typically greater than 70 feet tall. The dominant tree species in the canopy are silver maple and eastern cottonwood. In floodplain areas with severe flooding, the understory will be sparsely vegetated. Trees in the understory include saplings from the canopy species, green ash, black willow, slippery elm, American elm, boxelder, and hackberry;

b. "lowland hardwood forest" - an area with a flat terrain populated by deciduous tree species tolerant of periodic soil saturation from seasonally high water tables. The

## Minnetonka Code of Ordinances

soils are moderately well to poorly drained. The dominant tree species in the canopy are American elm, black ash, basswood, bur oak, red oak, white oak, quaking aspen, paper birch, and red maple. Trees in the understory include saplings from the canopy species, slippery elm, green ash, butternut, sugar maple, quaking aspen, balsam poplar, and American hornbeam. The large shrub or small tree layer of the understory is typically dense and can include ironwood, pagoda dogwood, prickly ash, American hazelnut, gray dogwood, and speckled alder;

c. "maple basswood forest" - an area with well drained soils and populated by a variety of shade-tolerant, fire sensitive, deciduous tree species. The mature trees are straight with narrow crowns greater than 60 feet tall. The dominant tree species in the canopy are basswood and sugar maple but mesic species such as slippery elm, red oak, bur oak, green ash, white ash and black ash may be found as well. Trees in the understory include saplings from the canopy species, bitternut, black cherry, and ironwood. The large shrub or small tree layer of the understory is composed of primarily tree seedlings and herbaceous plants;

d. "mesic oak forest" - an area populated by tall, single stemmed deciduous trees greater than 60 feet tall that lack spreading lower branches. Mesic oak forests may have a moderately moist habitat, but can be dry depending on the slope and aspect of the forest. The dominant tree species in the canopy include red oak, white oak, and bur oak. Trees in the understory include saplings from the canopy, and fire-sensitive species such as basswood, green ash, bitternut hickory, big-toothed aspen, butternut, northern pin oak, black cherry, paper birch, American elm, boxelder and red maple. The large shrub or small tree layer in the understory tends to be sparse with greater herbaceous plant diversity but can include ironwood, chokecherry, prickly ash, American hazelnut, prickly gooseberry, red-berried elder, nannyberry, juneberry/serviceberry, and pagoda dogwood;

e. "oak woodland brushland" - an area with a canopy more open than a forest but less open than a savanna. It is characterized by open-grown trees and a distinct shrub layer in well-drained sandy, gravelly soils. The dominant tree species include red oak, northern pin oak, white oak, bur oak, and aspen. When it exists, the trees in the understory include saplings from the canopy, black cherry and red cedar. The large shrub or small tree layer can include American hazelnut, ironwood, juneberry and chokecherry;

f. "tamarack swamp" - an area that is a forested wetland community dominated by patches of tamarack, a deciduous coniferous tree. The dominant tree species in the canopy include tamarack, black spruce, paper birch, and red maple. The trees in the understory include saplings from the canopy and the large shrub or small tree layer can include speckled alder and red osier dogwood; or

g. "willow swamp" - an area that is a forested wetland community or an area with seasonally flooded soils and scattered-to-dense shrub cover. The dominant tree species in the canopy include black willow and speckled alder. The trees in the understory include saplings from the canopy and the large shrub or small tree layer can include several species of willow and

## Minnetonka Code of Ordinances

dogwood.

10) "High priority tree" - a tree that is not in a woodland preservation area but is still important to the site and the neighborhood character, that is structurally sound and healthy, and that meets at least one of the following standards:

a. a deciduous tree that is at least 15 inches dbh, except box elders, elm species, poplar species, willow, silver maple, black locust, amur maple, fruit tree species, mulberry, and Norway maple.

b. a coniferous tree that is at least 20 feet in height, except a Colorado spruce that is not in a buffer as described in subparagraph (b)(10)(c); or

c. a tree that is in a group of deciduous trees that are at least eight inches dbh or coniferous trees that are at least 15 feet in height, that provide a buffer or screening along an adjacent public street, and that are within 50 feet of an arterial road and 35 feet of a minor collector, local, or private street and a trail.

11) "Significant tree" - a tree that is structurally sound and healthy and that is either a deciduous tree at least eight inches dbh or a coniferous tree at least 15 feet in height.

c) City authority. To preserve protected trees, the city may:

1) require and enforce a tree preservation plan as described in paragraph (d) below;

2) specify trees or groups of trees for preservation;

3) specify grading limits;

4) require the clustering of buildings or the relocation of roads, drives, buildings, utilities or storm water facilities when this would preserve protected trees;

5) grant variances;

6) specify time periods in which tree cutting, trimming or injury may not occur in order to prevent the spread of disease; and

7) require conservation easements or other legal means to ensure that woodland preservation areas or groups of high priority trees or significant trees are not intentionally destroyed after the development has been approved.

d) Tree Preservation Plan. A tree preservation plan is required as part of an application for a preliminary plat, lot division, conditional use permit, variance, grading permit, site and building plan review, wetland/floodplain alteration permit, or building permit, except a grading permit and building permit for R-1 property when no tree mitigation is required under (e)(1) below. If the exception applies and if the property owner retains a contractor to do the work, the contractor must submit a plan showing the proposed construction limits on the property and must not

## Minnetonka Code of Ordinances

remove any trees outside the specified construction limits. A tree preservation plan must include:

- 1) a tree inventory that meets the following criteria:
  - a. The species, sizes, and locations of high priority trees, significant trees, and trees in woodland preservation areas must be shown, regardless of health. Dead or structurally unsound trees should be noted as such in the inventory.
  - b. Canopy species that exist in woodland preservation areas, including those that are in the understory, must be inventoried if they are four inches dbh or larger. Understory trees, excluding canopy species, and large shrubs that exist in woodland preservation areas must be inventoried if they are two inches dbh or larger.
  - c. The size of high priority trees and significant trees must be inventoried regardless of location.
  - d. The size of coniferous trees must be recorded in dbh and approximate height.
  - e. Invasive species such as buckthorn and honeysuckle should not be inventoried.

2) a site plan that shows the dbh, location and size of the critical root zone for each protected tree, the trees to be removed, the trees to be preserved, the proposed construction limits, and the proposed tree protection methods in addition to construction limit fencing. If grading or construction limits are outside of a woodland preservation area, the trees in that woodland preservation area may be grouped together.

e) Tree Removal and Preservation. Removal of protected trees is prohibited except as follows:

- 1) Existing Structures.
  - a. R-1 zone: On property that is zoned R-1 and that has an existing principal structure, protected trees may be removed without any mitigation if the principal structure has been in existence and not externally expanded for at least two years after (1) a final building permit inspection or a certificate of occupancy was issued and (2) all of its final landscaping or ground cover was installed.
  - b. All other zones: On property that is not zoned R-1 and that has an existing principal structure, protected trees may be removed subject to the same standards applicable to R-1 property if no site improvements are undertaken and the owner complies with the required tree preservation and landscape plan for the property.

2) Existing Vacant Parcels of Land, Redevelopment, Site Improvements.

- a. R-1: For the construction of a principal structure on a vacant R-1 lot or for

## Minnetonka Code of Ordinances

redevelopment of an existing R-1 lot, protected trees may be removed with no mitigation only within the "basic tree removal area".

b. All other zones: On property not zoned R-1, for the construction of a principal structure on a vacant lot with no principal structure, for redevelopment of an existing lot, or for site improvements to an existing lot, protected trees may be removed with no mitigation only:

1. within the basic tree removal area; and
2. within the width of required easements for public and private streets and utilities, except that only significant trees may be removed in areas of required surface water ponding. The removal of woodland preservation area trees or high priority trees for surface water ponding must be mitigated.

c. The removal of protected trees under this subsection 2 must also comply with the general removal requirements under subsection 4 below.

### 3) Subdivisions.

a. Significant trees may be removed for any construction in a subdivision of land without mitigation only:

1. within the basic tree removal area; and
2. within the width of required easements for public and private streets and utilities, including areas required for surface water ponding.

b. If more than 35% of the site's high priority trees or more than 25% of a woodland preservation area on the site are to be removed for any construction in a subdivision of land, there can be no more than one lot per developable acre of land. High priority trees and trees within a woodland preservation area may be removed for any construction in a subdivision of land without mitigation only:

1. for the basic tree removal area; and
2. for the width of required easements for public and private streets and utilities, except in areas of required surface water ponding. The removal of high priority trees or trees in woodland preservation areas for surface water ponding must be mitigated.

c. A subdivision of land that proposes to remove more than 35% of the site's high priority trees or more than 25% of a woodland preservation area on the site can be developed up to the full density normally allowed under other development regulations in the applicable zoning district if the property is developed under an approved planned unit development (PUD). There is no minimum size required for a PUD in this situation. In reviewing a PUD application, the city will consider the extent to which steps are taken to preserve

## Minnetonka Code of Ordinances

protected trees, such as:

1. using creative design, which may include the clustering of homes, reducing lot sizes, reducing or expanding normal setbacks, custom grading, retaining walls, buffers, and establishing the size and location of building pads, roads, utilities and driveways;

2. preserving the continuity of woodland preservation areas by developing at the edges of those areas rather than at the core;

3. exercising good faith stewardship of the land and the trees both before subdivision and after, including the use of conservation easements when appropriate; and

4. minimizing the impact to the character of the existing landscape and neighborhood.

d. The removal of protected trees under this subsection 3 must also comply with the general removal requirements under subsection 4 below.

4) General removal requirements. The removal of protected trees under subsections (2) and (3) must also comply with the following general requirements:

a. Principal structures and associated facilities must be located to maximize tree preservation. The city may specify the location of the principal structures and associated facilities in order to ensure a reasonable amount of tree preservation.

b. Any tree removed outside of the specified allowable tree removal areas must be mitigated as specified below.

c. The applicant must comply with any approved tree preservation or landscape plan.

d. Trees required to be saved as part of a subdivision approval must remain on a lot for two years after the final building permit inspection or certificate of occupancy is issued for the principal structure, whichever is later. Any tree that dies solely of natural causes such as disease or wind is exempt from this section.

e. Each protected tree that is removed in violation of ordinance requirements is a separate violation of the city code.

5) Greater Public Good. The city council may allow the removal of protected trees contrary to the provisions in subparagraphs (1) - (4) if it determines that there is a greater public good such as:

a. providing reasonable use or access to the property;

b. providing affordable housing;

## Minnetonka Code of Ordinances

- c. allowing for the creation or rehabilitation of a public road or trail;
- d. providing for a public utility service, such as a transmission line, ponding or a water tower;
- e. allowing for the creation or rehabilitation of a public park; or
- f. enabling redevelopment in a designated redevelopment area.

f) Tree Mitigation.

1) When tree mitigation is required, the applicant must submit a tree mitigation plan for staff review and approval. The plan must indicate the number of inches or feet of mitigation trees, the species and quantity of each species, and the caliper size or feet and location for each replacement tree. The plan may not be comprised of more than 25 percent of the same species or size unless approved by the city. The plan must comply with the mitigation standards required below. The applicant must implement the tree mitigation plan approved by city staff.

2) Specific mitigation standards. Mitigation for tree removal of trees in woodland preservation areas, high priority trees, and significant trees must meet the following specific standards;

a. Mitigation rate.

1. A tree or large shrub that is in a woodland preservation area or is a high priority tree must be replaced at the rate of one inch for each inch in diameter of a deciduous tree that was removed and at the rate of one foot for each foot in height of a coniferous tree that was removed; and

2. A significant tree must be replaced with one two-inch tree.

b. Mitigation species.

1. Trees and large shrubs in woodland preservation areas must be replaced with species found in that eco-type as specified on the list of acceptable replacement species on file with the city;

2. High priority trees must be replaced with species of a similar type that are normally found growing in similar conditions and that are included on the list of acceptable replacement species on file with the city;

3. Significant trees may be replaced with any tree species other than ash, box elder, silver maple, willow, Norway maple, amur maple and Colorado spruce, as approved by city staff; and

c. Mitigation size.

1. Replacement sizes for woodland preservation areas and high

## Minnetonka Code of Ordinances

priority trees are:

a) not less than one and one quarter inches but not more than three inches dbh for deciduous balled and burlapped trees, and not less than three inches but not more than six inches dbh for spade-moved deciduous trees;

b) not less than 7 gallon stock for understory or small trees and not less than 3 gallon stock for shrubbery; and

c) not less than six feet but not more than eight feet in height for balled and burlapped coniferous trees, and not less than eight feet but not more than 14 feet in height for spade-moved coniferous trees.

2. 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,

3. Replacement size for a significant tree is not less than a two-inches dbh.

### 3) General mitigation standards:

a. All replacement trees and shrubs must meet the American Standard for Nursery Stock and the American National Standard relating to planting guidelines, quality of stock and appropriate sizing of the root ball for balled and burlapped, potted and spade-moved tree.

b. If the city determines in its reasonable discretion that there is no appropriate location for some or all of the required replacement trees, those trees may not be required.

c. Replacement trees must be planted on the same property or development area from which the trees were removed.

d. 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.

e. Development that is subject to landscape requirements in sections 300.27 and 300.31 must meet the minimum landscape requirements of the applicable section. Trees planted as part of a required landscaping plan may be counted as replacement trees under this section, at the city's discretion.

f. The required mitigation trees must be replaced by the current property

## **Minnetonka Code of Ordinances**

owner if the trees have died, have severely declined or have been damaged after the end of the second full growing season following installation. A tree will be considered to be severely declined if more than 25 percent of the crown has died.

g. The city may require an escrow deposit to ensure the required planting and continued existence of the mitigation trees. The city will release the escrow deposit after the end of the second full growing season following installation of the mitigation trees and any replacement trees.

h. A tree or shrub that was required by the city to be saved but was removed must be replaced at a rate of 2:1 based on dbh for deciduous species and height for conifers. The city may also impose a financial penalty equal to \$500.00 for each inch of dbh or foot of height removed, not to exceed \$5000 for each tree or shrub. This provision also applies to a conservation easement area that is disturbed during or after development.

g) General tree protection standards.

1) Before construction, grading or land clearing begins, the 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. This fencing must be inspected by city staff before site work begins.

2) No construction, compaction, construction access, stock piling of earth, storage of equipment or building materials, or grading of any kind may occur within the critical root zone areas of trees to be protected.

3) A healthy protected tree that was not a hazard to personal safety or property damage and that was removed or otherwise destroyed by unnatural causes within three years before a development application will be regarded as if it were present at the time of construction or a development application. This provision does not apply if the number of protected trees removed is less than 5% of the protected trees existing five years before the application.

4) An area of new or compensatory water storage may not be located where there are woodland preservation areas, high priority trees or significant trees, unless approved by the city. Mitigation will be required for the loss of woodland preservation areas and high priority trees due to ponding. The compensatory storage area must be created in a manner that prevents erosion into any nearby water resource.

(Repealed and amended by Ordinance No. 2008-24, adopted August 25, 2008)