

Subd. 8. Environmental Protection Regulations.

A. Wetlands Protection.

1. Purpose. Wetlands are a valuable resource. For purposes of this Ordinance a wetland is an area that is inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that, under normal circumstances, does support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

Wetlands occupy a landscape position that receives surface water runoff and provides possible contact with ground water. Therefore, wetlands have unique and special functions that influence environmental quality. These functions include, but are not limited to:

- a. Flood Control. Wetlands can reduce flood levels by storing storm water and releasing it gradually.
- b. Water Quality. Most vegetative wetlands are excellent sediment traps. Removing sediment from flood water and storm runoff has a positive influence on water quality. Wetlands can trap and detoxify heavy metals, toxic chemicals and pathogens in runoff waters. Wetlands also have the potential to remove up to 85 to 90 percent of the phosphorus and nitrates found in runoff water.
- c. Ground Water Recharge and Discharge. Some wetlands function as ground water recharge and/or discharge sites.
- d. Shoreline Stabilization. Wetland vegetation can help stabilize shorelines against erosion by absorbing and dissipating wave energy, binding the soil, and by causing the deposition of suspended material.
- e. Aquatic Food Chain Support. Waterfowl, fish, invertebrates, migratory and non-migratory birds, furbearers, and many plant species depend on wetlands for nourishment.
- f. Fish and Wildlife Habitat. Wetlands provide the habitat required by many freshwater fish species to spawn, feed, or avoid predators. A wide variety of plants and animals rely on wetlands, including many endangered, threatened, or rare species.

It is the intent of this Ordinance to establish a program of sound management through regulations that strive toward zero degradation of the wetlands by conserving, protecting and enhancing these environmentally sensitive resources. Furthermore, the specific intent of this Section is to:

- a. Protect surface and ground water supplies from the impairment which results from incompatible land-uses by providing safe and sanitary drainage.
 - b. Permit and encourage land-uses compatible with the preservation of the natural vegetation and marshes which are a principal factor in the maintenance of constant rates of water flow through the year and which sustain many species of wildlife and plant growth.
 - c. Avoid fast runoff of surface waters from developed areas to prevent pollutional materials such as motor oils, paper, sand, salt and other debris, garbage, and foreign materials from being carried directly into the nearest natural streams, lake or other public waters.
 - d. Encourage a suitable system of ponding areas to permit the temporary withholding of rapid runoff which presently contributes to downstream flooding and general water pollution giving preference to areas which contribute to ground water infiltration and recharge, thereby reducing the need for public projects to contain, store and control such runoff.
2. Definition and Establishment of Protected Areas. The Wetland Protection Area, within the City of Waconia, hereinafter referred to as the protected area, is defined and established to be wetland areas delineated on the Environmental Protection Plan (Figure 20 of the City of Waconia Comprehensive Plan) and wetland areas delineated on maps by the United States Department of the Interior, through the Geological Survey and supporting data designated as Waconia Quadrangle, Minnesota (SE/4 Waconia 1981) and Victoria Quadrangle, Minnesota (SW/4 Lake Minnetonka) and by the Soil Survey, Carver County, Minnesota issued November 1968.
 3. Development Prohibited. No filling, grading, dredging, excavation or construction shall be allowed within the Wetland Protection Area; nor on lands abutting, adjoining or affecting said area if such activity upon said areas is incompatible with the policies expressed in this Ordinance and the preservation of those wetlands in their natural state. To insure the policies in this Ordinance are properly implemented, any persons undertaking improvements to or on any land abutting or adjacent to the protected area shall, prior to commencing work, obtain a permit therefore from the City of Waconia.

4. Land Development, Platting and Storm Water Runoff. No lands within the Wetland Protection Area shall be platted for residential occupancy or for other uses which will increase the danger to health, life, property or the public welfare. Whenever a portion of the Wetland Protection Area is located within or adjoins a land area that is being subdivided, the subdivider shall dedicate an adequate easement over the land within the protected area and along each side of such area for the purpose of improving or protecting the area for drainage, or other purposes expressed in this Ordinance and other recreational uses.

Public or private streets, driveways, drainage openings, storm water retention areas and culverts shall not be constructed unless the design thereof has been approved by the City, and such structures shall be designated so as not to restrict the flow of water. All plans that affect all potential wetlands shall be submitted for review to the Department of Natural Resources, Army Corps of Engineers, City Engineer, and the Carver Soil and Water Conservation District during the land subdivision process.

In areas where the alteration of a wetland is allowable, provisions shall be made for acre-for-acre replacement or original wetland losses.

5. Setbacks. A 50 foot structure setback for all buildings and parking areas must be maintained from the edge of a designated wetland within a Wetland Protection Area (the edge being the point at which the vegetation changes from aquatic to terrestrial).

B. Land Alteration and Erosion Control.

1. Land alteration is the process of changing the existing landscape by excavating, filling, or grading. Subject to the exceptions set forth below, no land shall be altered, excavated, filled or graded and no vegetation shall be removed without first obtaining a permit from the City. The following exceptions shall be allowed:
 - a. A fill less than one (1) foot in depth and placed on natural terrain with a slope flatter than five horizontal to one vertical, or less than three feet in depth, not intended to support structures, which does not exceed 50 cubic yards on any one lot and does not obstruct a drainage course, and such other exceptions as are listed in Chapter 70 of the Uniform Building Code.
 - b. Construction of buildings for which a permit has been applied for and issued, provided the contemplated excavation or filling operation was sufficiently described at the time of building permit application.

- c. Excavations or fills by State, County, or City authorities in connection with the construction or maintenance of roads, highways, parks or utilities or on slope or utility easements provided such activity is conducted within public rights-of-way or easements.
 - d. Curb cuts, utility hook-ups or street openings for which another permit is required from the City.
 - e. Grading plans as approved of as part of plat approvals.
2. Requirements. Issuance of a grading permit shall be made subject to the following minimum requirements, and such other requirements as the City Council may specify to protect the public interest:
- a. Setback from Adjacent Property. All operations shall be conducted within the property lines. Grading that extends over the property lines shall require easements from adjacent property owners. Grading within the rights-of-way shall be by City permission.
 - b. It shall be unlawful for any person to dig or leave open unfenced, unbarricaded or uncovered, any pit, quarry, hole or excavation, including basements, wells, septic tanks or cesspools.
 - c. Restoration. Upon completion of excavation or filling operations the disturbed area shall be restored with topsoil or other approved cover material and shall be reseeded to establish approved vegetation.
 - d. Finished Grades. Finished grades shall not adversely affect adjacent properties.
 - e. Drainage. Drainage facilities shall be provided to effectively divert or convey storm water run-off.
 - f. Fire/Rodent/Wind/Hauling Control. Provisions for effectively controlling fire, rodents, and dispersal of material by wind or by hauling to and from the site, and for general maintenance of the site shall be made.
 - g. Permit Period. The excavation or filling permit shall run for six (6) months unless a lesser or greater period is requested and approved by the City Council.

3. Erosion Control. During construction and until permanent cover is established any land alteration that exceeds an area of 43,560 square feet (acre) shall require compliance with the Carver Creek Watershed District's regulations and procedures.

C. Steep Slope Protection.

1. Slopes Exceeding 18%. Any development on slopes exceeding 18% where there is an elevation difference of 20 feet or more shall first receive a permit from the City.
2. Slopes Exceeding 24%. No development shall be permitted on slopes exceeding 24% unless it can be demonstrated that grading can be accomplished without detriment to surface waters, wetlands and woodlands or that impacts on natural features will be mitigated.
3. Wooded Slopes. No development shall be permitted on wooded slopes exceeding 24% where there is an elevation difference of 20 feet or more. A wooded slope shall be defined as a slope of 24% or more that contains clusters of significant trees. A cluster shall be defined as two or more significant trees within 30 feet of one another.

D. Tree Preservation Regulations

1. Purpose. It is the intent and desire of the City to protect, preserve and enhance the natural environment and beauty of the City by encouraging the resourceful and prudent development of wooded areas and with respect to specific site development, to retain as far as practical, substantial tree stands which can be incorporated into the development. The City recognizes that preservation and replanting of trees is important on new development sites in order to maintain a healthy and desirable community. The City also recognizes that a certain amount of tree loss is an inevitable consequence of the urban development process.

The purposes of these tree preservation regulations include, but are not limited to, 1) prevention of soil erosion and sedimentation, 2) improved air quality, 3) reduced noise pollution, 4) energy conservation through natural insulation and shading, 5) control of the urban heat island effect, 6) increased property values, 7) protection of privacy by maintaining and establishing buffers between conflicting land uses, and 8) providing habitat for wildlife.

2. Scope. The regulations contained in this section shall apply to all properties regulated by Chapter 1000 (Subdivision Ordinance) of the Waconia City Code. The City does, however, strongly encourage preservation of trees on all properties within the City.
3. Removal Threshold.

- a. Developments in residential districts may remove or disturb up to thirty (30) percent of the total inches of significant trees. Any removal or disturbance beyond this threshold shall require reforestation or restitution.
 - b. Developments in non-residential districts may remove or disturb up to forty (40) percent of the total inches of significant trees. Any removal or disturbance beyond this threshold shall require reforestation or restitution.
 - c. Reasonable effort shall be made to preserve all significant trees during the planning process and site development process. No significant trees shall be removed that are within the 75' structure setback from a Recreational Development Lake (Burandt's Lake) or within the 50' structure setback area of a General Development Lake (Lake Waconia). Diseased trees shall not be subject to the requirements of this Ordinance.
4. Reforestation/Restitution Requirement. If a development exceeds the allowable removal or disturbance threshold specified above, the subdivider shall either reforest appropriate areas within the site (or outside the site if appropriate locations within the site are not available) or pay restitution, or provide a combination thereof. For each one (1.0) tree inch that is removed or disturbed beyond the threshold, the subdivider shall replant one and one-quarter (1.25) inches of new trees or provide the City with one hundred twenty five dollars (\$125.00) in restitution, per inch removed beyond the threshold.
5. Tree Survey/Preservation Plan. A tree survey and tree preservation plan shall be submitted with all preliminary plat applications, and with all lot division applications involving the creation of one or more new development parcels. The tree survey and tree preservation plan shall be prepared and signed by a registered surveyor or forester at the developers expense, and shall provide the following information:
- a. Location, diameter, and species of all significant trees on the site.
 - b. Identification of which significant trees are 1) to be protected, preserved, or undisturbed, 2) to be removed or disturbed, and 3) exempt from the calculation specified by the removal threshold.
 - c. Areas proposed to be designated as natural preserves where all natural vegetation, including significant trees, will be protected and preserved.
 - d. Proposed disturbance zones shall be properly identified and marked on all plans submitted for review.

- e. Location and dimensions of building pads, construction zone for each lot, and proposed street layout and grading contours of the site.
- f. Proposed locations and details of tree protection fencing to be installed for all trees to be preserved.
- g. Calculation of removed or disturbed significant tree inches on the site (excluding exempt tree inches) divided by the total significant tree inches on the site (excluding exempt tree inches).

6. Reforestation/Restitution Plan.

- a. If the amount of significant tree inches to be removed or disturbed exceeds the specified threshold, the subdivider shall provide a reforestation plan, or a calculation of restitution, or a combination thereof.
- b. A reforestation plan shall be prepared and signed by a registered landscape architect or forester and shall comply with the following criteria:
 - 1. The plan shall indicate the location and diameter or height of all trees to be planted.
 - 2. No more than one-fourth (1/4) of the trees to be planted may be from any one species, unless recommended by the City of Waconia.
 - 3. Plantings shall be of similar vegetation as found on the site, with a preference for plantings designated as native to the site.
 - 4. The minimum planting size for deciduous trees shall be two and one half (2.5) inches in diameter, and the minimum planting size for coniferous trees shall be six (6) feet in height, except that up to fifteen (15) percent of the required tree inches may be of ornamental species of a lesser size, provided the required number of replacement inches is maintained.
 - 5. Trees designated for replacement shall be of similar variety of trees which are removed as approved by the City.
- c. A replacement tree shown on a reforestation plan may be counted as a tree under the City's landscaping regulations, but only if the replacement tree satisfies every requirement of Section 900.07, Subd. 2, as to location, type,

and size of the tree. In all other circumstances, trees shown on a reforestation plan shall be in addition to those required by Section 900.07, Subd. 2, of the Code.

- d. Restitution shall be paid to the City in cash prior to the City's release of the signed final plat mylars for recording, or prior to approval of a minor subdivision. Any restitution paid shall be placed in the Community Planting Fund and shall be used for reforestation projects in the City.
7. Staff Review. The tree preservation plan and any related reforestation plan or calculation of restitution shall be reviewed and evaluated by the City of Waconia. The City of Waconia may make recommendations for adjustment of locations of structures, roadways, utilities, and for replanting and other elements that may be necessary to enhance tree preservation and reforestation efforts.
8. City Action. A tree preservation plan and reforestation plan, including the designation of any natural preserves, shall be considered for approval or denial by the City Council as part of the review of a preliminary plat. A tree preservation plan and reforestation plan shall be considered for approval or denial by the Zoning Administrator as part of the review of a minor subdivision. Any natural preserves included in a request for minor subdivision shall be considered for approval or denial by the City Council.
9. Financial Guarantee. The City shall require the owner to provide a performance bond in the form of cash, corporate surety bond, approved letter of credit or other surety satisfactory to the City to guarantee that the required trees to be replaced are done according to this Ordinance. The performance bond shall be furnished by the developer prior to obtaining a building permit. The performance bond shall be held by the City and must cover one full calendar year subsequent to the installation of said landscaping and must be conditioned upon complete and satisfactory implementation of the approved landscape plan.
10. Inspection and Enforcement of Tree Preservation Plan. Prior to removal of any trees and prior to issuance of a grading permit, or prior to commencement of any grading operations if no grading permit is required, or prior to issuance of a building permit if no grading operations are required, all sites shall be staked and fenced for tree preservation pursuant to the approved tree preservation plan. A copy of the approved tree preservation plan shall be submitted with an application for a grading permit, or with an application for a building permit if no grading permit is required. Such tree preservation plan shall also indicate any reforestation trees to be planted on the site. Upon staking of the site and installation of the tree protection fencing, but prior to issuance of any permits or

commencement of any grading operations, the subdivider shall contact the City of Waconia to schedule an inspection of the staking and fence installation on the site. No permits shall be issued, nor shall any grading operations commence, without first receiving authorization by the City of Waconia. Tree protection fencing shall remain in place until after the certificate of occupancy is issued for the building on the site.

- a. Upon completion of the preliminary site grading operations, but prior to any further issuance of permits upon the site, the subdivider shall contact the City of Waconia to schedule a second inspection of the site to verify the preservation of trees, as shown on the approved tree preservation plan. No additional permits shall be issued within the plat until a fine of one hundred fifty dollars (\$150.00) per inch is paid for the disturbance of all significant tree inches that have not been protected, but were shown as protected on the approved tree preservation plan. Any such fines collected shall be placed in the Community Planting Fund and shall be used for reforestation projects in the City.
- b. Prior to issuance of a certificate of occupancy, the subdivider (or builder if different from the subdivider) shall contact the City of Waconia to schedule a final tree preservation inspection to verify the preservation of trees and the planting of any reforestation trees, as shown on the approved tree preservation plan. This required inspection shall be made at least five (5) working days before the certificate of occupancy is requested. Prior to issuance of a certificate of occupancy, a fine of one hundred fifty dollars (\$150.00) per inch shall be paid for the disturbance of all significant tree inches that have not been protected, but were shown as protected on the approved tree preservation plan. Any such fines collected shall be placed in the Community Planting Fund and shall be used for reforestation projects in the City.

Tree Preservation Related Definitions:

- (a) **Critical Root Zone:** The circular area measured outward from a tree trunk equaling one foot of radius for each one inch of diameter of the tree.
- (b) **Disturbance Zone:** Any area which would be physically altered from its natural state, including but not limited to all areas of grading, utility installation, building pads, driveways, or parking areas.
- (c) **Natural Preserve:** Publicly owned lands designated as park or open space or private properties approved by the City which are set aside to preserve their natural characteristics and qualities.

(d) **Protected, Preserved, or Undisturbed Tree:** Any tree with at least seventy-five percent (75%) of its critical root zone left undisturbed, and which has been protected during the construction process by tree protection fencing if its trunk is located within 15 feet of any disturbance zone.

(e) **Significant Tree:** Any healthy tree measuring six (6) inches in diameter or larger at a height of thirty-six (36) inches above ground for deciduous trees, and measuring six (6) inches in diameter or larger at a distance of thirty-six (36) inches above ground for coniferous trees.

(f) **Tree Inches:** Any species of tree whose diameter is measured at a height of thirty-six (36) inches above the ground.