

Section 19.07.01: Purpose

ARTICLE VII: NATURAL RESOURCE PROTECTION STANDARDS**Section 19.07.01: Purpose**

The purpose of this Article is to set forth the requirements for the mandatory protection of natural resources and permanently protected green space areas within the jurisdiction of this Ordinance. These resources include: Floodways and other flood-related areas, Wetlands, Steep Slopes, and Woodlands. These resources serve important functions which are lost when these areas are subject to development and/or other land use activities in the absence of appropriate mitigation approaches. In many instances, these functions cannot be provided by other natural or man-made features. These functions include the protection and enhancement of air, surface water, ground water, and soil quality, habitat provision and diversification; aesthetic diversification; and buffering effects.

Section 19.07.02: Compliance

The following activities shall trigger compliance with the requirements of this Article:

- A. All new development including building construction, other site improvements and/or site preparation.
- B. Additions to existing development including building construction, other site improvements and/or site preparation.
- C. All activities related to Certified Survey Maps, Subdivision Plats, or Condominiums.

Section 19.07.03: Natural Resources to be Protected Under this Division to Remain Undisturbed and in Natural State

All the natural resources required to be protected under this Article shall remain undisturbed and in a natural state except those natural resources where mitigation is permitted and where that mitigation is in strict accord with those requirements set forth in this Article.

Section 19.07.04: Clear Cutting and Destruction of Existing Natural Resources

Removal of existing natural resources from a property prior to the required Plan Commission and/or Village staff approvals shall be prohibited. All clear cutting and destruction of natural resource features shall:

- A. Be deemed a change of use and all such changes of use shall be in compliance with the provisions of this Ordinance.
- B. Be required to meet the protection levels described in this Ordinance.
- C. Where such clear cutting and/or destruction violations occur, be required to meet the mitigation standards set forth under the provisions of Section 19.07.06.

Section 19.07.05: Natural Resource Features Determination

- A. Steep Slopes. Steep slopes, as defined in Section 19.01.22 of this Ordinance, are to be determined by using the following sources and/or methods in the order indicated below. The area of steep slopes (in square feet or acres) shall be measured and

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graphically delineated on a topographic drawing and on the "Natural Resource Protection Plan." Such steep slope drawing shall graphically indicate those steep slope areas, by slope type, of the property pursuant to the "steep slope" definition set forth in 19.01.22 of this Ordinance. If the first source is considered inaccurate or inappropriate, as determined by the Plan Commission, the succeeding source shall be used:

1. A topographic survey prepared by and certified by a Wisconsin registered land surveyor at a contour interval of not less than two (2) feet.
2. Large scale 1"=200' Ozaukee County topographic maps.
3. U.S.G.S. 7.5-minute topographic quadrangle maps.

B. Woodlands

1. The definition of woodlands, as applied to this Division, appears in Section 19.01.22 of this Ordinance. The determination of woodland and forest boundaries shall be based on the following sources: a. The most recent 1" = 400' aerial photographs prepared by the Southeastern Wisconsin Regional Planning Commission (SEWRPC) and available from either SEWRPC or from Ozaukee County (most recent date only); and b. A field survey of trees compiled by a registered land surveyor and identified by a landscape architect, forester, arborist, or botanist with a professional degree in one of those fields of endeavor.
2. Each woodland and forest area shall include the tree trunk and the area located within the dripline or tree canopy. The area of woodlands and forests (mature and young), in square feet or acres, shall be measured and graphically delineated on the "Natural Resource Protection Plan."
3. Such woodland and forest area drawing shall indicate all woodland and forest areas of the property meeting the minimum size criteria established by the definitions of woodlands in Section 19.01.22. In cases where the drip line or canopy areas overlap, the areas of overlap shall only be counted once. In cases where drip line or canopy areas overlap property lines, the property line(s) are to be used as the boundary for the woodland or forest area, with only that portion of the dripline area located on the subject property counted toward the woodland or forest area.
4. The location, size, and summary of species types of all healthy trees having a diameter at breast height (DBH) of ten (10) inches or greater that are located in woodland and forest areas within twenty-five (25) feet of any proposed improvement and/or in woodland and forest areas to be demolished due to the placement of improvements or grading are to be graphically shown on the "Natural Resource Protection Plan" or submitted as a separate drawing.
5. For the remaining undisturbed areas of the development, Certified Survey Map, Subdivision Plat, or Condominium only the outline of woodland and forest areas indicating whether they are mature or young woodlands is required.
6. The "Natural Resource Protection Plan" shall include an estimate of the percentage of all health trees within each woodland or forest area that have a DBH of three (3) inches or greater and ten (10) inches or greater.

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C. Lakes and Pond

1. Lakes and ponds, as defined in Section 19.01.22 of this Ordinance, are to be determined by using the definitions of "Lake" and "Pond" as set forth in Division 19.09.0100 of this Ordinance and the sources in the order indicated below.
2. If the first source is considered inaccurate or inappropriate, as determined by the Plan Commission, the succeeding source shall be used: 1. A topographic survey prepared by and certified by a Wisconsin registered land surveyor at a contour interval of not less than two (2) feet. 2. Large scale 1"=200' Ozaukee County topographic maps. 3. U.S.G.S. 7.5-minute topographic quadrangle maps.
3. The area of lakes and ponds (in square feet or acres) shall be measured and graphically delineated on the "Natural Resource Protection Plan."

D. Streams.

1. Streams, as defined in Section 19.01.22 of this Ordinance, are to be determined by using the definitions of "Channel" and "Stream" (see Division 19.09.0100 of this Ordinance) and the sources in the order indicated below.
2. If the first source is considered inaccurate or inappropriate, as determined by the Plan Commission, the succeeding source shall be used: 1. A topographic survey prepared by and certified by a Wisconsin registered land surveyor at a contour interval of not less than two (2) feet. 2. Large scale 1"=200' Ozaukee County topographic maps. 19- 4-4 3. U.S.G.S. 7.5-minute topographic quadrangle maps.
3. The area of streams (in square feet and acres) shall be measured and graphically delineated on the "Natural Resource Protection Plan."

E. Shore Buffers.

1. Shore buffers, as defined in Section 19.01.22 of this Ordinance, are to be determined as the land within seventy-five (75) feet of the ordinary high water mark of all navigable waters and parallel to that ordinary highwater mark, where required.
2. Navigable waters are to be determined by using the definition of "Navigable Water" set forth in Division 19.09.0100 of this Ordinance and the sources in the order indicated below.
3. If the first source is considered inaccurate or inappropriate, as determined by the Plan Commission, the succeeding source shall be used: 1. A topographic survey prepared by and certified by a Wisconsin registered land surveyor at a contour interval of not less than two (2) feet. 2. Large scale 1"=200' Ozaukee County topographic maps. 3. U.S.G.S. 7.5-minute topographic quadrangle maps. The area of shore buffers (in square feet and acres) shall be measured and graphically delineated on the "Natural Resource Protection Plan," except where shore buffers are both waived by the Plan Commission and not required under State Statutes.

F. Floodplain/Floodways/Floodlands.

1. The definition of floodplain, floodway, and floodlands appears in Section 19.01.22 of this Ordinance.

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2. The one hundred (100) year recurrence interval floodplain and floodways shall be determined as depicted on the Federal Emergency Management Agency's (FEMA) "Firm: Flood Insurance Rate Map(s)" with the effective date of March 18, 1991 as amended.
 3. Where a conflict exists between the floodland limits as shown on the Federal Emergency Management Agency's (FEMA) "Firm: Flood Insurance Rate Map(s)" and actual field conditions, the elevations from the 100-year recurrence interval flood profiles contained in the published Flood Insurance Study--Ozaukee County, Wisconsin and Incorporated Areas prepared by the Federal Emergency Management Agency (FEMA) dated March 18, 1991 shall be used.
- G. Wetlands (including Shoreland Wetlands).
1. Wetlands and shoreland wetlands are defined in Section 19.01.22 of this Ordinance.
 2. Wetland areas shall be determined by reference to the following sources in the order shown below.
 3. If the first source is considered inaccurate or inappropriate as determined by the Plan Commission, the succeeding source shall be used: 1. Wetland inventory maps prepared for the Village of Grafton as part of the "Wisconsin Wetland Inventory" prepared by the Wisconsin Department of Natural Resources as amended. 2. Field survey and mapping of plant material by a botanist with a professional degree in either botany or biology.
 4. The area of wetlands and/or shoreland wetlands (in square feet and acres) shall be measured and graphically delineated on the "Natural Resource Protection Plan."
- H. Natural Resources Measurement.
1. All land area within a proposed development, Certified Survey Map, Subdivision Plat, or Condominium consisting of the natural resource features defined in this Ordinance shall be accurately measured.
 2. The total square feet and acreage of each natural resource feature shall be multiplied by its respective "Natural Resource Protection Standard" as set forth in Table 19.07.05 "Natural Resource Protection Standards" of this Ordinance to determine the amount of each natural resource feature to be protected by a conservation easement.
 3. The methodology, termed "Site Intensity and Capacity Calculations," to be used for such calculations is set forth in Division 19.03.0500 of this 19- 4-5 Ordinance.
 4. If two (2) or more natural resource features are present on the same area of land, only the most restrictive natural resource protection standard shall be used. [For example, if floodlands and woodlands and forests occupy the same space on a site, the natural resource protection standard would be 100% (100% is the resource protection standard for a floodland) for this area representing the higher of the two standards.] Those areas to be demolished due to improvements or site grading or disturbed through the application of permitted mitigation techniques

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shall also be measured and so noted but shall not be counted as a natural resource area to be preserved.

Table 19.07.05 Natural Resource Protection Standard

Natural Resource Feature	Protection Standard	Mitigation Permitted
Steep Slopes		
20 to 30%	65%	No
Greater than 30%	100%	No
Mature Woodlands (in residential development only)	50%	Yes
Lakes and Ponds	100%	No
Streams	100%	No
Shore Buffers	100%	No
Floodplains	100%	Yes
Wetlands and Shoreland Wetlands	100%	Yes

Table Notes

- a. Shore buffers shall be as regulated by Title 22 "Shoreland-Wetland Zoning" of the Village of Grafton Municipal Code as amended and/or the Ozaukee County Zoning Ordinance as amended and as applicable within the Village. As permitted under Title 22 and Section 59.692(7), Wisconsin Statutes, the Plan Commission may permit development within shore buffers where such lands were included within the Village municipal limits before May 8, 1982.
- b. As regulated by Title 21 titled "Floodplain Zoning" of the Village of Grafton Municipal Code as amended and/or the Ozaukee County Zoning Ordinance as amended and as applicable including applicable appeal procedures as set forth in each ordinance.
- c. Including residential PUD Districts (or residential portions thereof).
- d. Including nonresidential PUD Districts (or nonresidential portions thereof).
- e. Any proposed changes to woodland and forest resources shall be considered as a change of use and shall require the issuance of a Zoning Permit from the Zoning Administrator in order to assure that required protection levels are met under the standards set forth under this Zoning Ordinance.
- f. Whether mitigation is permitted shall be determined by the Plan Commission on a case-by-case basis.
- g. Wetlands and shoreland wetlands shall be as regulated by Title 22 "Shoreland-Wetland Zoning" of the Village of Grafton Municipal Code as amended, the

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Ozaukee County Zoning Ordinance as amended and applicable within the Village, and/or all other wetlands as defined in Section 19.01.22.

- h. If not otherwise restricted by state or federal regulations, the Plan Commission may allow the filling or alteration of up to 1 acre of wetland without mitigation if such filling or alteration is essential for public safety purposes as defined under Section 281.36(7) Wisconsin Statutes.
- i. Protection standards for steep slopes and woodlands shall be enforced over the total combined occurrences of such features on lands held in contiguous single ownership, rather than over each of any two or more individual occurrences of steep slopes or woodlands on such lands. Contiguous single ownership shall be defined as lands that both share a common boundary and are singly owned by one individual, jointly owned by a married couple including that individual, owned by a partnership or corporation in which that individual was a member, or any combination. Lands shall be considered to share a common boundary even if they are divided by a public road or navigable waterway, or if they connect at only one point.

Section 19.07.06: Natural Resource Features Mitigation

- A. Intent of Mitigation. The Village of Grafton recognizes that, under certain circumstances, property owners, Subdividers, or Condominium Developers may wish to develop in portions of those protected natural resource feature areas shown as eligible for mitigation as indicated in Table 19.07.05. In Paragraph B of this Section the conditions for mitigation and mitigation standards are set forth for the various natural resource features for which mitigation is allowed under the provisions of Table 19.07.05. The intent of this Section is not to permit greater destruction of natural resource features than is permitted under the requirements of this Ordinance for typical property or development. This Section sets specific standards for use when the extent of the natural resources on a site and the use of the regulations would create a major hardship for said natural resource feature protection. Thus, mitigation is intended to be used instead of a variance request when severe hardships would result from the strict enforcement of the natural resource protection standards and requirements set forth in this Ordinance. Any off-site mitigation shall take place within the incorporated Village of Grafton.
- B. Mitigation Standards. The following methods, requirements, standards and/or criteria shall be followed for the mitigation of those natural resource features that may be mitigated under the requirements set forth under Table 19.07.05:
 1. Woodlands and Forests. Woodlands and forest areas may be mitigated under the following requirements applicable to the mitigation of woodland and forest areas, except that the Plan Commission may approve different sizes and types of plantings in mitigation areas where site conditions or context warrant:
 - a. Mitigation shall include the planting of two (2) acres of new woodland/forest for every one (1) acre of disturbed woodland/forest for which mitigation is required.

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- b. Mitigation shall include the replacement of woodlands/forests disturbed. Such mitigation shall consist of the planting of new woodland/forest areas, as specified in Paragraph (A) above, using the following numbers of plants per acre of mitigated area:

Table 19.07.06a Woodland Mitigation Standard

Number of Trees	Minimum Caliper
12 canopy trees	3.5-inch caliper
15 canopy trees	2-inch caliper
250 canopy trees	4-foot high whips

- c. All mitigation shall be in addition to landscaping required under Division 19.05.0300 of this Ordinance.
- d. Additional Requirements
 - i. The species of plants to be used in the mitigation of woodlands/forests shall be similar to those destroyed and a minimum mix of six (6) species are to be planted. Acceptable species for woodland and forest mitigation are as indicated in Table 19.07.06b. [Note: These species represent what is found in a typical stand of Wisconsin southern mesic forest.] No more than eighty (80) percent of the total number of trees planted for mitigation purposes, however, shall be of any single species.
 - ii. The land upon which the mitigation is to take place shall be protected with a deed restriction and conservation easement as a permanent natural resource features conservation easement.
 - iii. No tree cutting or removal, after the adoption of this Ordinance, shall reduce the woodland/forest natural resource features protection requirements of this Ordinance.

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Table 19.07.06b Tree Species for Woodland and Forest Mitigation

Species Common Name	Species Scientific Name
Sugar Maple	<i>Acer saccharum</i>
Bitternut Hickory	<i>Carya cordiformis</i>
Hackberry (Sugarberry)	<i>Celtis occidentalis</i>
Butternut	<i>Juglans cinerea</i>
Black Walnut	<i>Juglans nigra</i>
Eastern Hophornbeam	<i>Ostrya virginiana</i>
Black Cherry	<i>Prunus serotina</i>
White Oak	<i>Quercus alba</i>
Red Oak	<i>Quercus borealis</i>
American Basswood	<i>Tilia americana</i>
American Elm	<i>Ulmus americana</i>
Slippery Elm	<i>Ulmus rubra</i>

2. Lakes and Ponds. Lakes and ponds may be mitigated as may be permitted under the requirements of applicable state and federal legislation, rules, and permit requirements. Where permitted under the requirements of applicable state or federal legislation or rules, the required lakes and ponds natural resource protection standard may be reduced and/or mitigated only if such reduction and/or mitigation is part of a Village Engineer approved stormwater drainage system that meets, at a minimum, all of the following criteria: a. The time of concentration of stormwater flows remains unchanged or is lengthened. b. Stormwater storage capacity is unchanged or increased. c. Additional water is not backed up onto adjoining properties.
3. Floodplains, Floodways, and Floodlands. Floodplains, floodways, and floodlands may be mitigated as may be permitted under the requirements of applicable state and federal legislation, rules, and permit requirements.
4. Wetlands and Shoreland Wetlands. Wetland mitigation may be allowed as permitted under the requirements of Section 281.37, Wisconsin Statutes, and administrative rules promulgated by the Wisconsin Department of Natural Resources (WDNR) under that Section. If such statute or rules do not provide sufficient guidance on required mitigation, the Village shall require the preparation and submittal of a wetland mitigation plan by a professional wetland mitigation specialist, and the petitioner shall be responsible for all costs necessary for the Village to conduct a professional review of the mitigation plan. In addition, a permit from the U.S. Army Corps of Engineers 19- 4-8 pursuant to the requirements of Section 404 of the Clean Water Act (33 U.S.C. 1344) and/or

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the WDNR shall be submitted to the Village of Grafton certifying that filling has been approved and permitted by the Corps and/or WDNR. Alternatively, the petitioner must obtain and provide to the Village written correspondence from said agencies that a state or federal permit is not required, as a condition of Village review.

- C. Off-Site Mitigation. Off-site mitigation may be permitted by the Plan Commission if such off-site mitigation occurs within the same watershed as the natural resource feature, or property, being mitigated and follows the methods, requirements, standards, and/or criteria set forth in this Ordinance. All permitted off-site mitigation shall occur within the corporate limits of the Village of Grafton.

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