



City of Tigard Memorandum

To: Tigard City Council

From: Agnes Kowacz, Associate Planner

Re: DCA2016-00002 Required Regulatory Changes and FEMA FIRM Map Update

Date: September 27, 2016

This memo outlines the additional changes made to Chapter 18.775 Sensitive Lands, after the Planning Commission public hearing. These changes are required by FEMA in order to be in compliance with and continue to participate in the National Flood Insurance Program (NFIP) as stated in emails from Roxanne Pilkenton; FEMA Floodplain Management Specialist, on August 10th and August 17th, 2016. Staff was able to include most of the changes prior to the Planning Commission, however, there were two areas that staff needed further clarification from FEMA. Staff stated that any necessary changes would be made prior to the City Council public hearing once FEMA provided more information. Below is an explanation of how the remaining issues identified by FEMA were addressed:

- FEMA's email dated August 17, 2016 stated that section 18.775.020.B.6, 18.775.020.B.7, 18.775.020.B.8, and 18.775.020.B.9 cannot be permitted outright because these activities meet the definition of "development" as defined by FEMA and require a permit.

In order to comply with this requirement, staff revised section 18.775.020.B to remove four specific exemptions from applying within the special flood hazard area and added those four specific activities to the list of items needing to obtain a sensitive lands permit by means of a Type I procedure, section 18.775.020.E (g) through (j).

- FEMA's email also stated that section 18.775.020.C.1 is not clear on what constitutes an actual emergency and that we need to be clear that only the work necessary to alleviate the immediate threat may be performed under this section. Permitting is required to keep the emergency measures in place or to approve permanent measures to address the emergency situation long term.

Staff is not proposing any changes to the code as the City's current practice is sufficient to meet the requirements of FEMA. City procedures are to address any emergency that causes immediate threat as necessary, while the permanent solution/work goes through the proper permitting process, demonstrating compliance with all applicable laws and regulations.

- FEMA's email also stated that section 18.775.020.C.2 and 18.775.020.C.5 include any activities that meet the definition of "development" as defined by FEMA, they cannot be exempt from permitting.

DCA2016-00002
REQUIRED REGULATORY CHANGES AND FEMA FIRM MAP UPDATE
DEVELOPMENT CODE AMENDMENT

Explanation of Formatting

These text amendments employ the following formatting:

~~Strikethrough~~ - Text to be deleted

[Bold, Underline and Italic] – Text to be added

Chapter 18.775
SENSITIVE LANDS

Sections:

18.775.010	Purpose
18.775.020	Applicability of Uses: Permitted, Prohibited, and Nonconforming
18.775.030	Administrative Provisions
18.775.040	General Provisions for Floodplain <i>Special Flood Hazard</i> Areas
18.775.050	General Provisions for Wetlands
18.775.060	Expiration of Approval: Standards for Extension of Time
18.775.070	Sensitive Land Permits
18.775.080	Application Submission Requirements
18.775.090	Special Provisions for Development within Locally Significant Wetlands and Along the Tualatin River, Fanno Creek, Ball Creek, and the South Fork of Ash Creek
18.775.100	Adjustments to Underlying Zone Standards
18.775.110	Density Transfer
18.775.120	Variances to Section 18.775.090 Standards
18.775.130	Plan Amendment Option
18.775.140	Significant Habitat Areas Map Verification Procedures

18.775.010 Purpose

- A. Maintain integrity of rivers, streams, and creeks. Sensitive land regulations contained in this chapter are intended to maintain the integrity of the rivers, streams, and creeks in Tigard by minimizing erosion, promoting bank stability, maintaining and enhancing water quality, and fish and wildlife habitats, and preserving scenic quality and recreation potential.
- B. Implement comprehensive plan and floodplain management program. The regulations of this chapter are intended to implement the comprehensive plan and the city's floodplain management program as required by the Federal Emergency Management Agency (FEMA) through the National Flood Insurance Program, ~~and to~~ help to preserve ~~natural~~ sensitive land areas from encroaching use, and to maintain the November 4, 2016 ~~February 18, 2005~~, zero-foot rise floodway elevation.
- C. Implement Clean Water Service (CWS) design and construction standards. The regulations of this chapter are intended to protect the beneficial uses of water within the Tualatin River Basin in accordance with the CWS "Design and Construction Standards," as adopted February 7, 2000.

- D. Implement the Metro Urban Growth Management Functional Plan. The regulations of this chapter are intended to protect the beneficial water uses and functions and values of resources within water quality and flood management areas and to implement the performance standards of the Metro Urban Growth Management Functional Plan.
- E. Implement Statewide Planning Goal 5 (Natural Resources). The regulations in this chapter are intended to address the requirements of Statewide Planning Goal 5 (Natural Resources) and the safe harbor provisions of the Goal 5 administrative rule pertaining to wetland and riparian corridors.
- F. Protect public health, safety, and welfare. Sensitive land areas are designated as such to protect the public health, safety, and welfare of the community through the regulation of these sensitive land areas.
- G. Location. Sensitive lands are lands potentially unsuitable for development because of their location within:
1. The ~~100-year floodplain~~ special flood hazard area or 1996 flood inundation line, whichever is greater;
 2. Natural drainageways;
 3. Wetland areas which are regulated by the other agencies including the U.S. Army Corps of Engineers and the Division of State Lands, or are designated as significant wetland on the City of Tigard “Wetland and Stream Corridors Map”;
 4. Steep slopes of 25% or greater and unstable ground; and
 5. Significant fish and wildlife habitat areas designated on the City of Tigard “Significant Habitat Areas Map.” (Ord. 06-20, Ord. 05-01)

18.775.020 Applicability of Uses—Permitted, Prohibited, and Nonconforming

- A. CWS stormwater connection permit. All proposed development must obtain a stormwater connection permit from CWS pursuant to its design and construction standards. ~~As used in this chapter, the meaning of the word “development” shall be as defined in the CWS “Design and Construction Standards”:~~ All human induced changes to improved or unimproved real property, including:
1. ~~Construction of structures requiring a building permit, if such structures are external to existing structures;~~
 2. ~~Land division;~~
 3. ~~Drilling;~~
 4. ~~Site alterations resulting from surface mining or dredging;~~
 5. ~~Grading;~~
 6. ~~Construction of earthen berms;~~

- ~~7. Paving;~~
- ~~8. Excavation; or~~
- ~~9. Clearing when it results in the removal of trees or vegetation which would require a permit from the local jurisdiction or an Oregon Department of Forestry tree removal permit.~~
- ~~10. The following activities are not included in the definition of development:~~
 - ~~a. Farming activities when conducted in accordance with accepted farming practices as defined in ORS 30.930 and under a Senate Bill 1010 water quality management plan;~~
 - ~~b. Construction, reconstruction, or modification of a single family residence on an existing lot of record within a subdivision that was approved by the city or county after September 9, 1995 (from ORS 92.040(2)); and~~
 - ~~c. Any development activity for which land use approvals have been issued pursuant to a land use application submitted to the city or county on or before February 4, 2000, and deemed complete on or before March 15, 2000.~~

- B. Outright permitted uses with no permit required. Except as provided below and by subsections D, F, and G of this section, the following uses are outright permitted uses within the ~~100-year floodplain~~, drainageways, slopes that are 25% or greater, and unstable ground when the use does not involve paving. For the purposes of this chapter, the word “structure” shall exclude: children’s play equipment, picnic tables, sand boxes, grills, basketball hoops and similar recreational equipment.
- 1. Accessory uses such as lawns, gardens, or play areas; except in a water quality sensitive area or vegetated corridor, as defined in the CWS “Design and Construction Standards” or the Statewide Goal 5 vegetated corridor established for the Tualatin River, as defined in Section 18.775.090.
 - 2. Farm uses conducted without locating a structure within the sensitive land area; except in a water quality sensitive area or vegetative corridor, as defined in CWS “Design and Construction Standards” or the Statewide Goal 5 vegetated corridor established for the Tualatin River, as defined in Section 18.775.090.
 - 3. Community recreation uses, excluding structures; except in a water quality sensitive area or vegetated corridor, as defined in the CWS “Design and Construction Standards” or the Statewide Goal 5 vegetated corridor established for the Tualatin River, as defined in Section 18.775.090.
 - 4. Public and private conservation areas for water, soil, open space, forest, and wildlife resources.
 - 5. Removal of poison oak, tansy ragwort, blackberry, English ivy, or other noxious vegetation.
 - 6. Maintenance of floodway excluding re-channeling; except in a water quality sensitive area or vegetated corridor, as defined in the CWS “Design and Construction Standards” or the Statewide Goal 5 vegetated corridor established for the Tualatin River, as defined in Section 18.775.090.
 - 7. Fences; except in the floodway area; a water quality sensitive area or vegetated corridor, as defined in the CSW “Design and Construction Standards”; or the Statewide Goal 5 vegetated corridor established for the Tualatin River, as defined in Section 18.775.090.

8. Accessory structures which are less than 120 square feet in size; except in the floodway area; a water quality sensitive area or vegetated corridor, as defined in the CSW “Design and Construction Standards”; or the Statewide Goal 5 vegetated corridor established for the Tualatin River, as defined in Section 18.775.090.
 9. Land form alterations involving up to 10 cubic yards of material; except in the floodway area; a water quality sensitive area or vegetated corridor, as defined in the CSW “Design and Construction Standards”; or the Statewide Goal 5 vegetated corridor established for the Tualatin River, as defined in Section 18.775.090.
- C. Exemptions. When performed under the direction of the city, and in compliance with the provisions of the City of Tigard Standards and Specifications for Riparian Area Management, on file in the engineering division, the following shall be exempt from the provisions of this section:
1. Responses to public emergencies, including emergency repairs to public facilities;
 2. Stream and wetlands restoration and enhancement programs, **except in special flood hazard areas when meeting the definition of development in 18.775.040.R.1;**
 3. Non-native vegetation removal;
 4. Planting of native plant species; and
 5. Routine maintenance or replacement of existing public facilities projects, **except in special flood hazard areas when meeting the definition of development in 18.775.040.R.1.**
- D. Jurisdictional wetlands. Landform alterations or developments which are only within wetland areas that meet the jurisdictional requirements and permit criteria of the U.S. Army Corps of Engineers, Division of State Lands, CWS, and/or other federal, state, or regional agencies, and are not designated as significant wetlands on the City of Tigard “Wetland and Streams Corridors Map,” do not require a sensitive lands permit. The city shall require that all necessary permits from other agencies are obtained. All other applicable city requirements must be satisfied, including sensitive land permits for areas within the ~~100-year floodplain~~ **special flood hazard area**, slopes of 25% or greater or unstable ground, drainageways, and wetlands which are not under state or federal jurisdiction.
- E. Administrative sensitive lands review.
1. Administrative sensitive lands permits in the ~~100-year floodplain~~ **special flood hazard area**, drainageway, slopes that are 25% or greater, and unstable ground shall be obtained from the appropriate community development division for the following:
 - a. The city engineer shall review the installation of public support facilities by means of a Type I procedure, as governed by Section 18.390.030 subject to compliance with all of the standards in this chapter;
 - b. The city engineer shall review minimal ground disturbance(s) or landform alterations involving 10 to 50 cubic yards of material, except in the floodway area, for land that is within public easements and rights-of-way by means of a Type I procedure, as governed by Section 18.390.030 subject to compliance with all of the standards in this chapter;

- c. The director shall review minimal ground disturbance(s) or landform alterations involving 10 to 50 cubic yards of material, except in the floodway area by means of a Type I procedure, as governed by Section 18.390.030 subject to compliance with all of the standards in this chapter;
 - d. The director shall review the repair, reconstruction, or improvement of an existing structure or utility, the cost of which is less than 50% of the market value of the structure prior to the improvement or the damage requiring reconstruction provided no development occurs in the floodway by means of a Type I procedure, as governed by Section 18.390.030 subject to compliance with all of the standards in this chapter;
 - e. The building official shall review building permits for accessory structures which are 120 to 528 square feet in size, except in the floodway area; and
 - f. The director shall review applications for paving on private property, except in the floodway area by means of a Type I procedure, as governed by Section 18.390.030 subject to compliance with all of the standards in this chapter; and
 - g. The director shall review applications for maintenance of floodway excluding re-channeling; within special flood hazard areas, by means of a Type I procedure, as governed by Section 18.390.030 subject to compliance with all of the standards in this chapter; and
 - h. The director shall review applications for the construction of fences within special flood hazard areas by means of a Type I procedure, as governed by Section 18.390.030 subject to compliance with all of the standards in this chapter; and
 - i. The director shall review applications for the construction of accessory structures which are less than 120 square feet within special flood hazard areas by means of a Type I procedure, as governed by Section 18.390.030 subject to compliance with all of the standards in this chapter; and
 - j. The director shall review applications for any land formations involving up to 10 cubic yards of material within special flood hazard areas by means of a Type I procedure, as governed by Section 18.390.030 subject to compliance with all of the standards in this chapter.
2. The responsible community development division shall approve, approve with conditions, or deny an application for a development permit, as described above, based on the standards set forth in Sections 18.775.050, 18.775.070, and 18.775.080.
- F. Sensitive lands permits issued by the director.
- 1. The director shall have the authority to issue a sensitive lands permit in the following areas by means of a Type II procedure, as governed in Section 18.390.040, using approval criteria contained in Section 18.775.070:
 - a. Drainageways;
 - b. Slopes that are 25% or greater or unstable ground; and

- c. Wetland areas which are not regulated by other local, state, or federal agencies and are designated as significant wetlands on the City of Tigard “Wetland and Streams Corridors Map.”
2. Sensitive lands permits shall be required for the areas in paragraph 1 of this subsection F when any of the following circumstances apply:
- a. Ground disturbance(s) or land form alterations involving more than 50 cubic yards of material;
 - b. Repair, reconstruction, or improvement of an existing structure or utility, the cost of which equals or exceeds 50% of the market value of the structure prior to the improvement or the damage requiring reconstruction;
 - c. Residential and nonresidential structures intended for human habitation; and
 - d. Accessory structures which are greater than 528 square feet in size, outside floodway areas.

G. Sensitive lands permits issued by the hearings officer.

- 1. The hearings officer shall have the authority to issue a sensitive lands permit in the special flood hazard area~~100-year floodplain~~ by means of a Type IIIA procedure, as governed by Section 18.390.050, using approval criteria contained in Section 18.775.070.
- 2. Sensitive lands permits shall be required in the ~~100-year floodplain~~special flood hazard area when any of the following circumstances apply:
 - a. Ground disturbance(s) or landform alterations in all floodway areas;
 - b. Ground disturbance(s) or landform alterations in floodway fringe locations involving more than 50 cubic yards of material;
 - c. Repair, reconstruction, or improvement of an existing structure or utility, the cost of which equals or exceeds 50% of the market value of the structure prior to the improvement or the damage requiring reconstruction provided no development occurs in the floodway;
 - d. Structures intended for human habitation; and
 - e. Accessory structures which are greater than 528 square feet in size, outside of floodway areas.

H. Other uses. Except as explicitly authorized by other provisions of this chapter, all other uses are prohibited on sensitive land areas.

I. Nonconforming uses. A use established prior to the adoption of this title, which would be prohibited by this chapter or which would be subject to the limitations and controls imposed by this chapter, shall be considered a nonconforming use. Nonconforming uses shall be subject to the provisions of Chapter 18.760. (Ord. 09-13; Ord. 06-20)

18.775.030 Administrative Provisions

- A. Interagency coordination. The appropriate approval authority shall review all sensitive lands permit applications to determine that all necessary permits shall be obtained from those federal, state, or local governmental agencies from which prior approval is also required.

As governed by CWS “Design and Construction Standards,” the necessary permits for all “development,” as defined in Section 18.775.020.A, shall include a CWS service provider letter, which specifies the conditions and requirements necessary, if any, for an applicant to comply with CWS water quality protection standards and for the agency to issue a stormwater connection permit.

- B. Alteration or relocation of water course.

1. The director shall notify communities adjacent to the affected area and the State Department of Land Conservation and Development prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration;
2. The director shall require that maintenance is provided within the altered or relocated portion of a watercourse so that the flood-carrying capacity is not diminished.

- C. Apply standards. The appropriate approval authority shall apply the standards set forth in Sections 18.775.040 and 18.775.070 when reviewing an application for a sensitive lands permit.

- D. Elevation and floodproofing certification. The appropriate approval authority shall require that the elevations and floodproofing certification required in subsection E of this section be provided prior to permit issuance and verification upon occupancy and final approval.

- E. Maintenance of records.

1. Where base flood elevation data is provided through the flood insurance study, the building official shall obtain and record the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement;
2. For all new or substantially improved floodproofed structures, the building official shall:
 - a. Verify and record the actual elevation (in relation to mean sea level); and
 - b. Maintain the floodproofing certifications required in this chapter.
3. The director shall maintain for public inspection all other records pertaining to the provisions in this chapter.

18.775.040 General Provisions for ~~Floodplain~~ Special Flood Hazard Areas

- A. Permit review. The appropriate approval authority shall review all permit applications to determine whether proposed building sites will minimize the potential for flood damage.
- B. Special flood hazard. The areas of special flood hazard identified by ~~the Federal Insurance Administration~~ FEMA in a scientific and engineering report entitled “The Flood Insurance Study of ~~the City for~~ Washington County, Oregon and Incorporated Areas of Tigard,” effective February 18, 2005 ~~dated~~ effective November 4, 2016” with accompanying ~~flood insurance rate maps~~ Map

~~effective February 18, 2005, is hereby adopted by reference and declared to be a part of this chapter ordinance. This flood insurance study is on file at the Tigard Civic Center.~~

- C. Base flood elevation data. When base flood elevation data has not been provided in accordance with subsection B of this section, the director shall obtain, review and reasonably utilize any base flood elevation and floodway data available from a federal, state or other source, in order to administer subsections M and N of this section.
- D. Test of reasonableness. Where elevation data is not available either through the flood insurance study or from another authoritative source, applications for building permits shall be reviewed to assure that the potential for flood damage to the proposed construction will be minimized. The test of reasonableness is a local judgment and includes use of historical data, high water marks, photographs of past flooding, etc., where available. Failure to elevate at least two feet above grade in these sensitive land areas may result in higher insurance rates.
- E. Resistant to flood damage. All new construction and substantial improvements, including manufactured homes, shall be constructed with materials and utility equipment resistant to flood damage.
- F. Minimize flood damage. All new construction and substantial improvements, including manufactured homes, shall be constructed using methods and practices that minimize flood damage.
- G. Equipment protection. Electrical, heating, ventilation, plumbing, and air-conditioning equipment and other service facilities shall be designed and/or otherwise elevated or located so as to prevent water from entering or accumulating within the components during conditions of flooding.
- H. Water supply systems. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwater into the system.
- I. Anchoring. All new construction, all manufactured homes and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure.
- J. Sanitary sewerage systems. New and replacement sanitary sewerage systems shall be designed to minimize or eliminate infiltration of floodwater into the systems and discharge from the systems into floodwater.
- K. On-site water disposal systems. On-site water disposal systems shall be located to avoid impairment to them or contamination from them during flooding.
- L. Residential construction.
 1. New construction and substantial improvement of any residential structure, including manufactured homes, shall have the lowest floor, including the basement, elevated at least one foot above base flood elevation;
 2. Fully enclosed areas below the lowest floor that are subject to flooding are prohibited, or shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwater. Designs for meeting this requirement must either be certified by a registered professional engineer or architect, or must meet or exceed the following minimum criteria:

- a. A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided;
 - b. The bottom of all openings shall be no higher than one foot above grade; and
 - c. Openings may be equipped with screens, louvers, or other coverings or devices, provided that they permit the automatic entry and exit of flood waters.
3. Manufactured homes shall be securely anchored to an adequately anchored permanent foundation system. Anchoring methods may include, but are not limited to, use of over-the-top or frame ties to ground anchors.
- M. Nonresidential construction. New construction and substantial improvement of any commercial, industrial, or other nonresidential structure shall either have the lowest floor, including basement, elevated to the level of the base flood elevation, or together with attendant utility and sanitary facilities, shall:
1. Be floodproofed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water;
 2. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy;
 3. Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting provisions of this subsection based on their development and/or review of the structural design, specifications and plans. Such certifications shall be provided to the building official as set forth in 18.775.030.E.2; and
 4. Nonresidential structures that are elevated, not floodproofed, must meet the same standards for space below the lowest floor as described in paragraph L.2 of this section. Applicants floodproofing nonresidential buildings shall be notified that flood insurance premiums will be based on rates that are one foot below the floodproofed level (e.g., a building constructed to the base flood level will be rated as one foot below that level).
- N. Subdivisions and partitions in 400-year floodplains~~in 400-year floodplains~~ ***special flood hazard areas***. Subdivisions and partitions in the ~~400-year floodplains~~ ***special flood hazard area*** shall meet the following criteria:
1. The design shall minimize the potential for flood damage;
 2. Public utilities and facilities such as sewer, gas, electrical, and water systems shall be located and constructed so as to minimize flood damage;
 3. Adequate drainage shall be provided to reduce exposure to flood damage; and
 4. For subdivisions or partitions which contain more than 50 lots or five acres and where base flood elevation data is not available from the Federal Emergency Management Agency (FEMA) or another authoritative source, the applicant shall generate base flood elevation data to be reviewed as part of the application.

- O. Recreational vehicles. Recreational vehicles placed on sites within Zones A1-A30, AH, and AE on the community's flood insurance rate map either:
1. Are on the site for fewer than 180 consecutive days;
 2. Are fully licensed and ready for highway use:
 - a. Are on wheels or jacking system,
 - b. Are attached to the site only by quick disconnect type utilities and security devices, and have no permanently attached additions, or
 - c. Meet the requirements of subsections E, F, I, and L of this section and the elevation and anchoring requirements for manufactured homes. (Ord. 05-01)

P. Construction of new critical facilities shall be, to the extent possible, located outside of the limits of the special flood hazard area. Construction of new critical facilities shall be permissible within the special flood hazard area if no feasible alternative site is available. Critical facilities constructed within the special flood hazard area shall have the lowest floor elevated three feet above base flood elevation or to the height of the 500-year flood, whichever is higher. Access to and from the critical facility should also be protected to the height utilized above. Floodproofing and sealing measures must be taken to ensure that toxic substances will not be displaced by or released into floodwaters. Access routes elevated to or above the level of the base flood elevation shall be provided to all critical facilities to the extent possible.

O. Severability. If any section, clause, sentence, or phrase of the ordinance is held to be invalid or unconstitutional by any court of competent jurisdiction, then said holding shall in no way affect the validity of the remaining portions of this Ordinance.

R. Definitions. The following definitions are only applicable to this section:

1. **DEVELOPMENT means any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials.**
2. **FLOOD INSURANCE RATE MAP (FIRM) means an official map of a community, on which the Federal Insurance Administrator has delineated both the special hazard areas and the risk premium zones applicable to the community. A FIRM that has been made available digitally is called a Digital Flood Insurance Rate Map (DFIRM).**
3. **FLOOD INSURANCE STUDY (FIS) means the official report provided by the Federal Insurance Administration that includes flood profiles, the Flood Boundary-Floodway Map, and the water surface elevation of the base flood.**
4. **LOWEST FLOOR means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor; Provided, that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of § 60.3.**

5. MANUFACTURED HOME means a structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term “manufactured” home does not include a “recreational vehicle”.
 6. NEW CONSTRUCTION means, for the purposes of determining insurance rates, structures for which the “start of construction” commenced on or after the effective date of an initial FIRM or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures. For floodplain management purposes, new construction means structures for which the start of construction commenced on or after the effective date of a floodplain management regulation adopted by a community and includes any subsequent improvements to such structures.
 7. RECREATIONAL VEHICLE means a vehicle which is: (a) Built on a single chassis; (b) 400 square feet or less when measured at the largest horizontal projection; (c) Designed to be self-propelled or permanently towable by a light duty truck; and (d) Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.
 8. START OF CONSTRUCTION includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, placement or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure, whether or not that alteration affects the external dimensions of the building.
 9. STRUCTURE means, for floodplain management purposes, a walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured home.
 10. SUBSTANTIAL DAMAGE means damage of any origin sustained by a structure whereby the cost of restoring the structure to it’s before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.
 11. VIOLATION means the failure of a structure or other development to be fully compliant with the community’s flood plain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in § 60.3(b)(5), (c)(4), (c)(10), (d)(3), (e)(2), (e)(4), or (e)(5) is presumed to be in violation until such time as that documentation is provided.
- S. Disclaimer of Liability. This section provides a reasonable degree of flood protection but does not imply total flood protection.

T. Greater Restriction. This section shall not in any way impair/remove the necessity of compliance with any other applicable laws, ordinances, regulations, etc. Where this section imposes a greater restriction, the provisions of this section shall control.

18.775.050 General Provisions for Wetlands

- A. Code compliance requirements. Wetland regulations apply to those areas classified as significant on the City of Tigard “Wetland and Streams Corridors Map,” and to a vegetated corridor ranging from 25 to 200 feet wide, measured horizontally, from the defined boundaries of the wetland, per “Table 3.1, Vegetated Corridor Widths,” and “Appendix C, Natural Resource Assessments,” of the CWS “Design and Construction Standards.” Wetland locations may include but are not limited to those areas identified as wetlands in “Wetland Inventory and Assessment for the City of Tigard, Oregon,” Fishman Environmental Services, 1994.
- B. Delineation of wetland boundaries. Precise boundaries may vary from those shown on wetland maps; specific delineation of wetland boundaries may be necessary. Wetland delineation will be done by qualified professionals at the applicant’s expense.

18.775.060 Expiration of Approval—Standards for Extension of Time

- A. Voiding of permit. Approval of a sensitive lands permit shall be void if:
1. Substantial construction of the approved plan has not begun within a one-and-one-half year period; or
 2. Construction on the site is a departure from the approved plan.
- B. Granting of extension. The director shall, upon written request by the applicant and payment of the required fee, grant an extension of the approval period not to exceed one year, provided that:
1. No changes are made on the original plan as approved by the approval authority;
 2. The applicant can show intent of initiating construction of the site within the one year extension period; and
 3. There have been no changes to the applicable comprehensive plan policies and ordinance provisions on which the approval was based.
- C. Notice of the decision. Notice of the decision shall be provided to the applicant. The director’s decision may be appealed by the applicant as provided by 18.390.040.G and H.

18.775.070 Sensitive Land Permits

- A. Permits required. An applicant, who wishes to develop within a sensitive area, as defined in Chapter 18.775, must obtain a permit in certain situations. Depending on the nature and intensity of the proposed activity within a sensitive area, either a Type II or Type III permit is required, as delineated in 18.775.020.F and G. The approval criteria for various kinds of sensitive areas, e.g., special flood hazard area floodplain, are presented in subsections B through E of this section.

- B. ~~Within the 100-year floodplain~~ **special flood hazard area**. The hearings officer shall approve, approve with conditions or deny an application request within the ~~100-year floodplain~~ **special flood hazard area** based upon findings that all of the following criteria have been satisfied:
1. Compliance with all of the applicable requirements of this title;
 2. Land form alterations shall preserve or enhance the ~~floodplain~~ **special flood hazard area** storage function and maintenance of the zero-foot rise floodway shall not result in any encroachments, including fill, new construction, substantial improvements and other development unless certified by a registered professional engineer that the encroachment will not result in any increase in flood levels during the base flood discharge;
 3. Land form alterations or developments within the ~~100-year floodplain~~ **special flood hazard area** shall be allowed only in areas designated as commercial or industrial on the comprehensive plan land use map, except that alterations or developments associated with community recreation uses, utilities, or public support facilities as defined in Chapter 18.120 of the community development code shall be allowed in areas designated residential subject to applicable zoning standards;
 4. Where a land form alteration or development is permitted to occur within the ~~floodplain~~ **special flood hazard area** it will not result in any increase in the water surface elevation of the 100-year flood;
 5. The land form alteration or development plan includes a pedestrian/bicycle pathway in accordance with the adopted pedestrian/bicycle pathway plan, unless the construction of said pathway is deemed by the hearings officer as untimely;
 6. Pedestrian/bicycle pathway projects within the ~~floodplain~~ **special flood hazard area** shall include a wildlife habitat assessment that shows the proposed alignment minimizes impacts to significant wildlife habitat while balancing the community's recreation and environmental educational goals;
 7. The necessary U.S. Army Corps of Engineers and State of Oregon Land Board, Division of State Lands, and CWS permits and approvals shall be obtained; and
 8. Where land form alterations and/or development are allowed within and adjacent to the ~~100-year floodplain~~ **special flood hazard area**, the city shall require the consideration of dedication of sufficient open land area within and adjacent to the ~~floodplain~~ **special flood hazard area** in accordance with the comprehensive plan. This area shall include portions of a suitable elevation for the construction of a pedestrian/bicycle pathway within the ~~floodplain~~ **special flood hazard area** in accordance with the adopted pedestrian/bicycle pathway plan.
- C. With steep slopes. The appropriate approval authority shall approve, approve with conditions or deny an application request for a sensitive lands permit on slopes of 25% or greater or unstable ground based upon findings that all of the following criteria have been satisfied:
1. Compliance with all of the applicable requirements of this title;
 2. The extent and nature of the proposed land form alteration or development will not create site disturbances to an extent greater than that required for the use;

3. The proposed land form alteration or development will not result in erosion, stream sedimentation, ground instability, or other adverse on-site and off-site effects or hazards to life or property;
 4. The structures are appropriately sited and designed to ensure structural stability and proper drainage of foundation and crawl space areas for development with any of the following soil conditions: wet/high water table; high shrink-swell capability; compressible/organic; and shallow depth-to-bedrock; and
 5. Where natural vegetation has been removed due to land form alteration or development, the areas not covered by structures or impervious surfaces will be replanted to prevent erosion in accordance with Chapter 18.745, Landscaping and Screening.
- D. Within drainageways. The appropriate approval authority shall approve, approve with conditions or deny an application request for a sensitive lands permit within drainageways based upon findings that all of the following criteria have been satisfied:
1. Compliance with all of the applicable requirements of this title;
 2. The extent and nature of the proposed land form alteration or development will not create site disturbances to an extent greater than that required for the use;
 3. The proposed land form alteration or development will not result in erosion, stream sedimentation, ground instability, or other adverse on-site and off-site effects or hazards to life or property;
 4. The water flow capacity of the drainageway is not decreased;
 5. Where natural vegetation has been removed due to land form alteration or development, the areas not covered by structures or impervious surfaces will be replanted to prevent erosion in accordance with Chapter 18.745, Landscaping and Screening;
 6. The drainageway will be replaced by a public facility of adequate size to accommodate maximum flow in accordance with the adopted 1981 Master Drainage Plan;
 7. The necessary U.S. Army Corps of Engineers and State of Oregon Land Board, Division of State Lands, and CWS approvals shall be obtained;
 8. Where land form alterations and/or development are allowed within and adjacent to the special flood hazard area~~100-year floodplain~~, the city shall require the consideration of dedication of sufficient open land area within and adjacent to the special flood hazard area~~floodplain~~ in accordance with the comprehensive plan. This area shall include portions of a suitable elevation for the construction of a pedestrian/bicycle pathway within the special flood hazard area~~floodplain~~ in accordance with the adopted pedestrian bicycle pathway plan.
- E. Within wetlands. The director shall approve, approve with conditions or deny an application request for a sensitive lands permit within wetlands based upon findings that all of the following criteria have been satisfied:
1. Compliance with all of the applicable requirements of this title;

2. The proposed land form alteration or development is neither on wetland in an area designated as significant wetland on the comprehensive plan ~~*special flood hazard area*~~ floodplain and wetland map nor is within the vegetative corridor established per “Table 3.1 Vegetative Corridor Widths” and “Appendix C: Natural Resources Assessments” of the CWS “Design and Construction Standards,” for such a wetland;
3. The extent and nature of the proposed land form alteration or development will not create site disturbances to an extent greater than the minimum required for the use;
4. Any encroachment or change in on-site or off-site drainage which would adversely impact wetland characteristics have been mitigated;
5. Where natural vegetation has been removed due to land form alteration or development, erosion control provisions of the Surface Water Management program of Washington County must be met and areas not covered by structures or impervious surfaces will be replanted in like or similar species in accordance with Chapter 18.745, Landscaping and Screening;
6. All other sensitive lands requirements of this chapter have been met;
7. The necessary U.S. Army Corps of Engineers and State of Oregon Land Board, Division of State Lands, and CWS approvals shall be obtained;
8. The provisions of Chapter 18.790, Tree Removal, shall be met;
9. Physical limitations and natural hazards, ~~*special flood hazard area*~~ floodplains and wetlands, natural areas, and parks, recreation and open space policies of the comprehensive plan have been satisfied. (Ord. 12-09 §1; Ord. 09-11)

18.775.080 Application Submission Requirements

All applications for uses and activities identified in 18.775.020.A through G shall be made on forms provided by the director and must include the following information in graphic, tabular and/or narrative form. The specific information on each of the following is available from the director:

- A. A CWS stormwater connection permit;
- B. A site plan;
- C. A grading plan;
- D. An urban forestry plan per Chapter 18.790 (for 18.775.020.F and G); and
- E. A landscaping plan. (Ord. 12-09 §1)

18.775.090 Special Provisions for Development within Locally Significant Wetlands and Along the Tualatin River, Fanno Creek, Ball Creek, and the South Fork of Ash Creek

- A. In order to address the requirements of Statewide Planning Goal 5 (Natural Resources) and the safe harbor provisions of the Goal 5 administrative rule (OAR 666-023-0030) pertaining to wetlands, all wetlands classified as significant on the City of Tigard “Wetlands and Streams Corridors Map” are

protected. No land form alterations or developments are allowed within or partially within a significant wetland, except as allowed/approved pursuant to Section 18.775.130.

- B. In order to address the requirements of Statewide Planning Goal 5 (Natural Resources) and the safe harbor provisions of the Goal 5 administrative rule (OAR 660-023-0030) pertaining to riparian corridors, a standard setback distance or vegetated corridor area, measured horizontally from and parallel to the top of the bank, is established for the Tualatin River, Fanno Creek, Ball Creek, and the South Fork of Ash Creek.
1. The standard width for “good condition” vegetated corridors along the Tualatin River is 75 feet, unless wider in accordance with CWS “Design and Construction Standards,” or modified in accordance with Section 18.775.130. If all or part of a locally significant wetland (a wetland identified as significant on the City of Tigard “Wetlands and Streams Corridors Map”) is located within the 75-foot setback area, the vegetated corridor is measured from the upland edge of the associated wetland.
 2. The standard width for “good condition” vegetated corridors along Fanno Creek, Ball Creek, and the South Fork of Ash Creek is 50 feet, unless wider in accordance with CWS “Design and Construction Standards”, or modified in accordance with Section 18.775.130. If all or part of a locally significant wetland (a wetland identified as significant on the City of Tigard “Wetlands and Streams Corridors Map”) is located within the 50-foot setback area, the vegetated corridor is measured from the upland edge of the associated wetland.
 3. The minimum width for “marginal or degraded condition” vegetated corridors along the Tualatin River, Fanno Creek, Ball Creek, and the South Fork of Ash Creek is 50% of the standard width, unless wider in accordance with CWS “Design and Construction Standards,” or modified in accordance with Section 18.775.130.
 4. The determination of corridor condition shall be based on the natural resource assessment guidelines contained in the CWS “Design and Construction Standards.”
 5. The standard setback distance or vegetated corridor area applies to all development proposed on property located within or partially within the vegetated corridors, except as allowed below:
 - a. Roads, pedestrian or bike paths crossing the vegetated corridor from one side to the other in order to provide access to the sensitive area or across the sensitive area, as approved by the city per Section 18.775.070 and by CWS “Design and Construction Standards”;
 - b. Utility/service provider infrastructure construction (i.e. storm, sanitary sewer, water, phone, gas, cable, etc.), if approved by the city and CWS;
 - c. A pedestrian or bike path, not exceeding 10 feet in width and meeting the CWS “Design and Construction Standards”;
 - d. Grading for the purpose of enhancing the vegetated corridor, as approved by the city and CWS;
 - e. Measures to remove or abate hazards, nuisances, or fire and life safety violations, as approved by the regulating jurisdiction;
 - f. Enhancement of the vegetated corridor for water quality or quantity benefits, fish, or wildlife habitat, as approved by the city and CWS;

- g. Measures to repair, maintain, alter, remove, add to, or replace existing structures, roadways, driveways, utilities, accessory uses, or other developments provided they are consistent with city and CWS regulations, and do not encroach further into the vegetated corridor or sensitive area than allowed by the CWS “Design and Construction Standards.”
6. Land form alterations or developments located within or partially within the Goal 5 safeharbor setback or vegetated corridor areas established for the Tualatin River, Fanno Creek, Ball Creek, and the South Fork of Ash Creek that meet the jurisdictional requirements and permit criteria of the CWS, U.S. Army Corps of Engineers, Division of State Lands, and/or other federal, state, or regional agencies, are not subject to the provisions of this subsection B, except where the:
- a. Land form alterations or developments are located within or partially within a good condition vegetated corridor, as defined in paragraphs 1 and 2 of this subsection B;
 - b. Land form alterations or developments are located within or partially within the minimum width area established for marginal or a degraded condition vegetated corridor, as defined in paragraph 3 of this subsection B.

These exceptions reflect instances of the greater protection of riparian corridors provided by the safe harbor provisions of the Goal 5 administrative rule.

18.775.100 Adjustments to Underlying Zone Standards

Adjustments to dimensional standards of the underlying zone district may be approved by the Planning Director when necessary to further the purpose of this section.

- A. Adjustment option. The planning director may approve up to 50% adjustment to any dimensional standard (e.g., setback height or lot area) of the underlying zone district to allow development consistent with the purposes of this section. The purpose of the adjustment process is to reduce adverse impacts on wetlands, stream corridors, fish and wildlife habitat, water quality and the potential for slope of flood hazards.
- B. Adjustment criteria. A special adjustment to the standards in the underlying zoning district may be requested under Type II procedure when development is proposed within or adjacent to the vegetated corridor area or within or adjacent to areas designated as “strictly limit” or “moderately limit” on the City of Tigard “Significant Habitat Areas Map.” Verification of significant habitat boundaries shall be done in accordance with the procedures described in Section 18.775.140. In order for the director to approve a dimensional adjustment to standards in the underlying zoning district, the applicant shall demonstrate that all the following criteria are fully satisfied:
 - 1. The adjustment is the minimum necessary to allow a permitted use, while at the same time minimizing disturbance to a water resource, riparian setback area or water quality buffer;
 - 2. Explicit consideration has been given to maximizing vegetative cover, minimizing excavation and minimizing impervious surface area on buildable land;
 - 3. Design options have been considered to reduce the impacts of development, including but not limited to multi-story construction, siting of the residence close to the street to reduce driveway distance, maximizing the use of native landscaping materials, minimizing parking areas, minimizing hydrologic impacts and garage space;

4. In no case shall the impervious surface area as a single-family residence (including the building footprint, driveway and parking areas, accessory structures, swimming pools and patios) exceed 3,000 square feet of a vegetated corridor area;
 5. Assurances are in place to guarantee that future development will not encroach further on land under the same ownership within the vegetated corridor area;
 6. Protected vegetated corridor, significant habitat areas and adjacent buffer areas must be:
 - a. Placed in a non-buildable tract or protected with a restrictive easement;
 - b. Restoration and enhancement of habitat and buffer areas required, including monitoring for five years.
- C. Reduction to minimum density requirements for developments that include inventoried significant habitat areas. The minimum number of units required by Section 18.510.040 (Density Calculation) may be waived if necessary to ensure that impacts on habitat areas are minimized.
1. Approval criteria. Reduction requests will be approved if the review body finds that the applicant has shown that the following criteria are met:
 - a. An area of the property lot or parcel to be developed has been identified on the “Significant Habitat Areas Map.” Verification of significant habitat boundaries shall be done in accordance with the procedures described in Section 18.775.140.
 - b. The proposal will be consistent with the character of the neighboring area.
 - c. This provision may only be applied to properties that were inside the Metro Urban Growth Boundary (UGB) on January 1, 2002.
 - d. The proposal will directly result in the protection of significant habitat areas through placement in a non-buildable tract or protected with a restrictive easement.
 2. Procedure.
 - a. The amount of reduction in the minimum density shall be calculated by subtracting the number of square feet of inventoried significant habitat that is permanently protected from the total number of square feet used to calculate the minimum density requirement.
 - b. Requests for a reduction are processed as Type II procedure along with the development proposal for which the application has been filed.

The planning director may impose any reasonable condition necessary to mitigate identified impacts resulting from development on otherwise unbuildable land. (Ord. 06-20)

18.775.110 Density Transfer

Density may be transferred from vegetated corridor areas as provided in Sections 18.715.020 through 18.715.030.

18.775.120 Variances to Section 18.775.090 Standards

Variances to the use provisions of Section 18.775.090 are not permitted. Variances from measurable (dimensional) provisions of this section shall be discouraged and may be considered only as a last resort.

- A. Type II variance option. The hearings officer shall hear and decide variances from dimensional provisions of this chapter under Type III procedure, in accordance with the criteria in Chapter 18.370 of the zoning ordinance.
- B. Additional criteria. In addition to the general variance criteria described in Chapter 18.370, all the following additional criteria must be met to grant a variance to any dimensional provision of this chapter:
1. The variance is necessary to allow reasonable economic use of the subject parcel of land, which is owned by the applicant, and which was not created after the effective date of this chapter;
 2. Strict application of the provisions of this chapter would otherwise result in the loss of a buildable site for a use that is permitted outright in the underlying zoning district, and for which the applicant has submitted a formal application;
 3. The applicant has exhausted all options available under this chapter to relieve the hardship;
 4. Based on review of all required studies identical to those described in Section 3.02.5.c Tier 2 Alternatives Analysis of the CWS “Design and Construction Standards,” the variance is the minimum necessary to afford relief, considering the potential for increased flood and erosion hazard, and potential adverse impacts on native vegetation, fish and wildlife habitat, and water quality;
 5. Based on review of all required studies identical to those described in Section 3.02.5 of the CWS “Design and Construction Standards,” no significant adverse impacts on water quality, erosion or slope stability will result from approval of this hardship variance, or these impacts have been mitigated to the greatest extent possible;
 6. Loss of vegetative cover shall be minimized. Any lost vegetative cover shall be replaced on-site, on a square foot for square foot basis, by native vegetation.

18.775.130 Plan Amendment Option

Any owner of property affected by the Goal 5 safeharbor (1) protection of significant wetlands and/or (2) vegetated areas established for the Tualatin River, Fanno Creek, Ball Creek, and the South Fork of Ash Creek may apply for a quasi-judicial comprehensive plan amendment under Type IV procedure. This amendment must be based on a specific development proposal. The effect of the amendment would be to remove Goal 5 protection from the property, but not to remove the requirements related to the CWS Stormwater Connection Permit, which must be addressed separately through an alternatives analysis, as described in Section 3.02.5 of the CWS “Design and Construction Standards.” The applicant shall demonstrate that such an amendment is justified by either of the following:

- A. ESEE analysis. The applicant may prepare an environmental, social, economic and energy (ESEE) consequences analysis prepared in accordance with OAR 660-23-040.

1. The analysis shall consider the ESEE consequences of allowing the proposed conflicting use, considering both the impacts on the specific resource site and the comparison with other comparable sites within the Tigard Planning Area;
 2. The ESEE analysis must demonstrate to the satisfaction of the Tigard City Council that the adverse economic consequences of not allowing the conflicting use are sufficient to justify the loss, or partial loss, of the resource;
 3. In particular, ESEE analysis must demonstrate why the use cannot be located on buildable land, consistent with the provisions of this chapter, and that there are no other sites within the Tigard Planning Area that can meet the specific needs of the proposed use;
 4. The ESEE analysis shall be prepared by a team consisting of a wildlife biologist or wetlands ecologist and a land use planner or land use attorney, all of whom are qualified in their respective fields and experienced in the preparation of Goal 5 ESEE analysis;
 5. If the application is approved, then the ESEE analysis shall be incorporated by reference into the Tigard Comprehensive Plan, and the “Tigard Wetland and Stream Corridor Map” shall be amended to remove the site from the inventory.
- B. Determination of “insignificance.” In this case, the applicant must demonstrate that the sensitive area site(s) no longer meet(s) the applicable significance threshold defined by the Goal 5 administrative rule, relative to other comparable resources within the Tigard Planning Area.
1. Significance thresholds are described and applied in the addendum to the City of Tigard Local Wetlands Inventory adopted by reference as part of this chapter.
 2. In considering this claim, the city council shall determine that the decline in identified resource values did not result from a violation of this chapter or any other provision of the Tigard Community Development Code.

18.775.140 Significant Habitat Areas Map Verification Procedures

The significant habitat areas map shall be the basis for determining the general location of significant habitat areas on or adjacent to the site.

- A. Applicants who concur that the significant habitat areas map is accurate shall submit the following information to serve as the basis for verifying the boundaries of inventoried habitat areas:
1. Submission requirements.
 - a. A detailed property description;
 - b. A scale map of the property showing the locations of significant habitat areas, any existing built area, wetlands or water bodies, Clean Water Services’ vegetated corridor, the special flood hazard area ~~100-year floodplain~~, the 1996 flood inundation line, and contour lines (two-foot intervals for slope less than 15% and 10-foot intervals for slopes 15% or greater); and
 - c. A current aerial photograph of the property.

2. Decision process. The planning director’s decision shall be based on consideration of submitted information, site visit information, and other factual information. Should the applicant disagree with the planning director’s determination on the location of significant habitat areas on the property, the precise boundaries shall be verified by the applicant in accordance with the detailed delineation methodology outlined in subsection B of this section.
- B. Applicants who believe that the map is inaccurate shall submit a detailed delineation conducted by a qualified professional in accordance with the following methodology to verify the precise boundaries of the inventoried habitat areas by means of a Type II procedure.
1. Verifying boundaries of inventoried riparian habitat. Locating habitat and determining its riparian habitat class is a four-step process:
 - a. Locate the water feature that is the basis for identifying riparian habitat.
 - i. Locate the top of bank of all streams, rivers, and open water within 200 feet of the property.
 - ii. Locate the ***special flood hazard area*** ~~100-year floodplain~~ or 1996 flood inundation line, whichever is greater, within 100 feet of the property.
 - iii. Locate all wetlands within 150 feet of the property. Identified wetlands on the property shall be further delineated consistent with methods currently accepted by the Oregon Division of State Lands and the U.S. Army Corps of Engineers.
 - b. Identify the vegetative cover status of all areas on the property that are within 200 feet of the top of bank of streams, rivers, and open water, are wetlands or are within 150 feet of wetlands, and are flood areas and within 100 feet of flood areas.
 - i. Vegetative cover status shall be as identified on the metro vegetative cover map.
 - ii. The vegetative cover status of a property may be adjusted only if (a) the property was developed prior to the time the regional program was approved; or (b) an error was made at the time the vegetative cover status was determined. To assert the latter type of error, applicants shall submit an analysis of the vegetative cover on their property using summer 2002 aerial photographs and the following definition of vegetative cover types in Table 18.775.1.

**Table 18.775.1
Definitions of Vegetative Cover Types**

Type	Definition
Low structure vegetation or open soils	Areas that are part of a contiguous area one acre or larger of grass, meadow, croplands, or areas of open soils located within 300 feet of a surface stream (low structure vegetation areas may include areas of shrub vegetation less than one acre in size if they are contiguous with areas of grass, meadow, croplands, orchards, Christmas tree farms, holly farms, or areas of open soils located within 300 feet of a surface stream and together form an area of one acre in size or larger).
Woody vegetation	Areas that are part of a contiguous area one acre or larger of shrub or open or scattered forest canopy (less than 60% crown closure) located within 300 feet of a surface stream.

Forest canopy	Areas that are part of a contiguous grove of trees one acre or larger in area with approximately 60% or greater crown closure, irrespective of whether the entire grove is within 200 feet of the relevant water feature.
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- c. Determine whether the degree that the land slope upward from all streams, rivers, and open water within 200 feet of the property is greater than or less than 25% (using the vegetated corridor measurement methodology as described in Clean Water Services Design and Construction Standards); and
- d. Identify the riparian habitat classes applicable to all areas on the property using Table 18.775.2 and Table 18.775.3.

**Table 18.775.2
Method for Locating Boundaries of Class I and II Riparian Areas**

Distance in feet from water feature	Development/Vegetation Status ¹			
	Developed areas not providing vegetative cover	Low structure vegetation or open soils	Woody vegetation (shrub and scattered forest canopy)	Forest canopy (closed to open forest canopy)
Surface streams				
0-50	Class II	Class I	Class I	Class I
50-100		Class II ²	Class I	Class I
100-150		Class II ² if slope > 25%	Class II ² if slope > 25%	Class II ²
150-200		Class II ² if slope > 25%	Class II ² if slope > 25%	Class II ² if slope > 25%
Wetlands (Wetland feature itself is a Class I Riparian Area)				
0-100		Class II ²	Class I	Class I
100-150				Class II ²
Flood Areas (Undeveloped portion of flood area is a Class I Riparian Area)				
0-100			Class II ²	Class II ²

¹ The vegetative cover type assigned to any particular area was based on two factors: the type of vegetation observed in aerial photographs and the size of the overall contiguous area of vegetative cover to which a particular piece of vegetation belonged. As an example of how the categories were assigned, in order to qualify as a “forest canopy” the forested area had to be part of a larger patch of forest land at least one acre in size.

² Areas that have been identified as habitats of concern, as designated on the Metro Habitats of Concern Map (on file in the Metro Council office), shall be treated as Class I riparian habitat areas in all cases, subject to the provision of additional information that establishes that they do not meet the criteria used to identify habitats of concern as described in Metro’s Technical Report for Fish and Wildlife. Examples of habitats of concern include: Oregon white oak woodlands, bottomland hardwood forests, wetlands, native grasslands, riverine islands or deltas, and important wildlife migration corridors.

**Table 18.775.3
Tualatin Basin “Limit” Decision**

Resource Category	Conflicting Use Category			
	High Intensity Urban	Other Urban	Future Urban (2002 and 2004 additions)	Non-Urban (outside UGB)
Class I & II Riparian Inside Vegetated Corridor	Moderately Limit	Strictly Limit	Strictly Limit	N/A
Class I & II Riparian Outside Vegetated Corridor	Moderately Limit	Moderately Limit	Moderately Limit	Moderately Limit
All other Resource Areas	Lightly Limit	Lightly Limit	Lightly Limit	Lightly Limit
Inner Impact Area	Lightly Limit	Lightly Limit	Lightly Limit	Lightly Limit

Outer Impact Area	Lightly Limit	Lightly Limit	Lightly Limit	Lightly Limit
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* Vegetated corridor standards are applied consistently throughout the District; in HIU areas they supersede the “limit” decision.

2. Verifying boundaries of inventoried upland habitat was identified based on the existence of contiguous patches of forest canopy, with limited canopy openings. The “forest canopy” designation is made based on analysis of aerial photographs as part of determining the vegetative cover status of land within the region. Upland habitat shall be as identified on the Significant Habitat Areas Map unless corrected as provided in this subsection.
 - a. Except as provided below, vegetative cover status shall be as identified on the Metro Vegetative Cover Map used to inventory habitat (available from the Metro Data Resource Center, 600 N.E. Grand Ave., Portland, OR 97232).
 - b. The only allowed corrections to the vegetative cover status of a property area as follows:
 - i. To correct errors made when the vegetative status of an area was determined based on analysis of the aerial photographs used to inventory the habitat. The perimeter of an area delineated as “forest canopy” on the Metro Vegetative Cover Map may be adjusted to more precisely indicate the dripline of the trees within the canopied area provided that no areas providing greater than 60% canopy crown closure are de-classified from the “forest canopy” designation. To assert such errors, applicants shall submit an analysis of the vegetative habitat cover on their property using the aerial photographs that were used to inventory the habitat and the definitions of the different vegetative cover types provided in Table 18.775.1; and
 - ii. To remove tree orchards and Christmas tree farms from inventoried habitat; provided, however, that Christmas tree farms where the trees were planted prior to 1975 and have not been harvested for sale as Christmas trees shall not be removed from the habitat inventory.
 - c. If the vegetative cover status of any area identified as upland habitat is corrected pursuant to subparagraph A.2.b.i of this section to change the status of an area originally identified as “forest canopy,” then such area shall not be considered upland habitat unless it remains part of a forest canopy opening less than one acre in area completely surrounded by an area of contiguous forest canopy. (Ord. 06-20) ■

Exhibit B

Staff added the language “except in special flood hazard areas when meeting the definition of development in 18.775.040.R.1” to these two sections. This change makes it clear that any activities that meet the FEMA definition of “development” require a permit.