



## INFORMATIONAL MEMORANDUM

TO: **Transportation and Infrastructure Committee**  
FROM: **Henry Hash, Public Works Director**  
BY: **Ryan Larson, Program Manager**  
CC: **Mayor Ekberg**  
DATE: **July 17, 2020**  
SUBJECT: **Flood Plain Management Ordinance and Map Update**

### **ISSUE**

The City's Flood Plain Management Ordinance was passed in 1980 and updated in 1988 and 2002. On May 15, 2020, the Federal Emergency Management Agency notified all Washington jurisdictions participating in the National Flood Insurance Program (NFIP) that our Flood Ordinance would require updates to comply with new federal and state regulations and to adopt revised Flood Insurance Rate Maps (FIRMs).

### **BACKGROUND**

Public Works used the State's model flood ordinance as a template to update the Flood Ordinance. This draft was sent to the Department of Ecology and Department of Commerce for review and approval. The ordinance is also undergoing SEPA review.

### **DISCUSSION**

Both the current ordinance and the draft ordinance include standards and provisions that encourage sound floodplain management allowing property owners to obtain flood insurance at a more affordable rate.

The draft ordinance adopts revised FIRMs that better reflect the actual Special Flood Hazard Areas (SFHA) within the City. The FIRM updates were done for all jurisdictions along the Green/Duwamish River. In addition, the draft ordinance also clarifies language concerning development within SFHA. This includes the requirement to obtain a Flood Permit for activities such as filling and grading within a SFHA even if a structure is not built.

### **FISCAL IMPACT**

Additional development and land clearing activities within the SFHA will now be regulated. This will require additional staff time to review and approve Flood Permits.

### **RECOMMENDATION**

Council is being asked to approve the updated Flood Plain Management Ordinance and consider this item at the July 27, 2020 Committee of the Whole meeting and subsequent August 03, 2020 Regular Meeting.

Attachments: Draft Flood Plain Ordinance

# DRAFT

**AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF TUKWILA, WASHINGTON, REPEALING ORDINANCE NO. 2038, AS CODIFIED AS CHAPTER 16.52, "FLOOD PLAIN MANAGEMENT;" REENACTING TMC CHAPTER 16.52 TO UPDATE FLOOD PLAIN MANAGEMENT REGULATIONS AND POLICIES AS REQUIRED OF JURISDICTIONS PARTICIPATING IN THE NATIONAL FLOOD INSURANCE PROGRAM; PROVIDING FOR SEVERABILITY; AND ESTABLISHING AN EFFECTIVE DATE.**

**WHEREAS**, flood hazard areas in Tukwila are subject to periodic inundation which may result in loss of life or property, may create health or safety hazards, may disrupt commerce or governmental services, may cause extraordinary public expenditures for flood protection and relief, or might impair the tax base, all of which adversely affect the public health, safety, and general welfare; and

**WHEREAS**, these flood losses may be caused by the cumulative effect of obstructions in areas of special flood hazards that increase flood heights and velocities, and damage uses in other areas when inadequately anchored; and

**WHEREAS**, uses that are inadequately flood-proofed, elevated or otherwise protected from flood damage can contribute to losses due to flooding; and

**WHEREAS**, the Legislature of the State of Washington delegated the responsibility to local governmental units of adopting regulations designed to promote the public health, safety, and general welfare of its citizenry; and

**WHEREAS**, in Title 86 of the Revised Code of Washington, the Legislature of the State of Washington authorized local governmental agencies to regulate use and development of flood hazard areas within their jurisdictions in order to reduce such hazards; and

**WHEREAS**, continued participation by the City of Tukwila in the National Flood Insurance Program requires adoption of flood plain management standards and a floodplain construction permit process; and

**WHEREAS**, on July 27, 2020, the Tukwila City Council, following adequate public notice, held a public hearing to receive testimony on the proposed ordinance;

**NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF TUKWILA, WASHINGTON, HEREBY ORDAINS AS FOLLOWS:**

**Section 1. Repealer.** Ordinance No. 2038, as codified as Tukwila Municipal Code (TMC) Chapter 16.52, "Flood Plain Management," is hereby repealed.

**Section 2. TMC Chapter 16.52 Reenacted.** TMC Chapter 16.52 is hereby reenacted to read as follows:

**CHAPTER 16.52  
FLOOD PLAIN MANAGEMENT**

**Sections:**

- 16.52.010 ~~Authority~~ [Statutory Authorization](#)
- 16.52.020 Purpose
- 16.52.030 Definitions
- 16.52.040 Applicability
- 16.52.050 [Basis for Establishing the Areas of](#) Special Flood Hazard [Areas](#)
- 16.52.060 Interpretation
- 16.52.070 [Warning and Disclaimer of](#) Liability
- 16.52.080 Administration
- 16.52.090 Permits
- 16.52.100 Standards
- 16.52.110 Floodways
- 16.52.120 Critical Facility
- [16.52.125](#) [Compliance](#)
- 16.52.130 Penalties
- 16.52.140 Abrogation and Greater Restrictions

**Section 3.** TMC Section 16.52.010 is hereby reenacted to read as follows:

**16.52.010 ~~Authority~~ [Statutory Authorization](#)**

The Legislature of the State of Washington delegated the responsibility to the City of Tukwila to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry.

**Section 4.** TMC Section 16.52.020 is hereby reenacted to read as follows:

**16.52.020 Purpose**

This chapter aims to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas, by provisions designed to:

1. Protect human life and health;
2. Minimize expenditure of public money and costly flood control projects;
3. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
4. Minimize prolonged business interruptions;
5. Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets, and bridges located in areas of special flood hazard;
6. Help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas;
7. Ensure that potential buyers are notified that property is in an area of special flood hazard; ~~and~~
8. Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions; ~~and-~~
9. Participate in and maintain eligibility for flood insurance and disaster relief.

**Section 5.** TMC Section 16.52.030 is hereby reenacted to read as follows:

### **16.52.030 Definitions**

Unless specifically defined below, words or phrases used in this chapter shall be interpreted to give them the meaning they have in common usage and to give this chapter its most reasonable application.

~~1. "A" means a zone on the Flood Insurance Rate Map (FIRM) where flooding is known to occur but no flood elevation has been determined.~~

~~2. "AH" means a zone on the Flood Insurance Rate Map (FIRM) characterized by base flood depths from one to three feet, having no clearly defined channel or having an unpredictable and indeterminate channel, and where velocity flow may be evident. AH indicates ponding.~~

~~3. "AE" means a zone on the Flood Insurance Rate Map (FIRM) where base flood elevations are determined and are shown on the map.~~

1. **Alteration of watercourse:** Any action that will change the location of the channel occupied by water within the banks of any portion of a riverine waterbody.

42. **Appeal:** meansA request for a review of the interpretation of any provision of this chapter or a request for a variance.

3. **Area of shallow flooding:** A designated zone AO, AH, AR/AO or AR/AH (or VO) on a community's Flood Insurance Rate Map (FIRM) with a one percent or greater annual chance of flooding to an average depth of one to three feet where a

clearly defined channel does not exist, where the path of flooding is unpredictable, and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow. Also referred to as the sheet flow area.

4. **Area of special flood hazard:** The land in the floodplain within a community subject to a 1 percent or greater chance of flooding in any given year. It is shown on the Flood Insurance Rate Map (FIRM) as zone A, AO, AH, A1-30, AE, A99, AR (V, VO, V1-30, VE). "Special flood hazard area" is synonymous in meaning with the phrase "area of special flood hazard".

5. **ASCE 24:** The most recently published version of ASCE 24, "Flood Resistant Design and Construction", published by the American Society of Civil Engineers.

6. **Base flood:** means—The flood having a 1% chance of being equaled or exceeded in any given year; ~~(it is also referred to as the "100-year flood"). Its designation on maps always includes the letter A.~~

7. **Base Flood Elevation (BFE):** The elevation to which floodwater is anticipated to rise during the base flood.

8. **Basement:** means—Any area of the building having its floor sub-grade (below ground level) on all sides.

9. **Building:** See "Structure."

10. **Building Code:** The current editions of the building codes and amendments adopted by Washington State and amended by the City of Tukwila.

11. **Breakaway wall:** A wall that is not part of the structural support of the building and is intended through its design and construction to collapse under specific lateral loading forces, without causing damage to the elevated portion of the building or supporting foundation system.

12. **Critical facility:** means—A facility for which even a slight chance of flooding might be too great. Critical facilities include, but are not limited to, schools; nursing homes; hospitals; police, fire and emergency response installations; and installations ~~which that~~ produce, use, or store hazardous materials or hazardous waste.

13. **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 ~~and or~~ storage of equipment or materials located within the area of special flood hazard.

14. **Director:** means—The Director of Public Works or ~~his~~ designee.

10. "DOE" means the Department of Ecology.

15. Elevation Certificate: An administrative tool of the National Flood Insurance Program (NFIP) that can be used to provide elevation information, to determine the proper insurance premium rate and to support a request for a Letter of Map Amendment (LOMA) or Letter of Map Revision based on fill (LOMR-F).

1416. Elevated building: means For insurance purposes, a non-basement building ~~which that~~ has its lowest elevated floor raised above ground level by foundation walls, shear walls, posts, piers, pilings, or columns.

17. Essential facility: This term has the same meaning as “Essential Facility” defined in ASCE 24. Table 1-1 in ASCE 24-14 further identifies building occupancies that are essential facilities.

~~12. "Existing Manufactured Home Park or Subdivision" means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before 1981, the effective date of Tukwila's original floodplain management regulations.~~

~~13. "Expansion to an Existing Manufactured Home Park or Subdivision" means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed, including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads.~~

~~14. "FBFM" means Flood Boundary/Floodway Map.~~

~~15. "FZCP" means Flood Zone Control Permit.~~

~~16. "FEMA" means Federal Emergency Management Agency.~~

~~17. "FIRM" means Flood Insurance Rate Map.~~

**18. Flood or Flooding:** means

(a) A general and temporary condition of partial or complete inundation of normally dry land areas from:

a.(1) The overflow of inland or tidal waters; ~~and/or~~

b.(2) The unusual and rapid accumulation or runoff of surface waters from any source; ~~and/or~~

(3) Mudslides (i.e., mudflows), which are proximately caused by flooding as defined in subparagraph (a)(2) of this definition and are akin to a river of liquid and flowing mud on the surfaces of normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current.

(b) The collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event that results in flooding as defined in subparagraph (a)(1) of this definition.

19. **Flood elevation study:** An examination, evaluation, and determination of flood hazards and, if appropriate, corresponding water surface elevations, or an examination, evaluation and determination of mudslide (i.e., mudflow) and/or flood-related erosion hazards. Also known as a Flood Insurance Study (FIS).

20. **Flood Insurance Rate Map (FIRM):** ~~means~~—The official map of a community on which the Federal Insurance Administrator has delineated both the areas of special flood 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).

~~21. "Flood Insurance Study" 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.~~

21. **Floodplain or flood-prone area:** Any land area susceptible to being inundated by water from any source. See "Flood or Flooding."

~~22. "Flood-Prone" means any land area susceptible to flooding not shown on FIRMs but designated as flood-prone by the Director, using best available information.~~

22. **Floodplain Administrator:** The community official designated by title to administer and enforce the floodplain management regulations.

23. **Floodplain management regulations:** Zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as floodplain ordinance, grading ordinance and erosion control ordinance) and other application of police power. The term describes such state or local regulations, in any combination thereof, that provide standards for the purpose of flood damage prevention and reduction.

24. **Flood proofing:** Any combination of structural and nonstructural additions, changes, or adjustments to structures that reduce or eliminate risk of flood damage to real estate or improved real property, water and sanitary facilities, structures, and their contents. Flood-proofed structures are those that have the structural integrity and design to be impervious to floodwater below the Base Flood Elevation.

2325. Floodway: means–The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot a designated height. Also referred to as "Regulatory Floodway."

19. Flood Zone means any area designated as special flood hazard or flood-prone, or any area within the shoreline per the Tukwila Municipal Code.

26. Functionally dependent use: A use that cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and ship building and ship repair facilities, and does not include long-term storage or related manufacturing facilities.

27. Highest adjacent grade: The highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

28. Historic structure: Any structure that is:

a. Listed individually in the National Register of Historic Places (a listing maintained by the Department of the Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;

b. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;

c. Individually listed on a state inventory of historic places in states with historic preservation programs that have been approved by the Secretary of the Interior; or

d. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:

(1) By an approved state program as determined by the Secretary of the Interior, or

(2) Directly by the Secretary of the Interior in states without approved programs.

2429. Lowest floor: means–The lowest floor of the lowest enclosed area (including basement). If aAn unfinished or flood-resistant enclosure, is used usable solely for vehicle parking of vehicles, building access, or storage, if this enclosure is in an area other than a basement area, and if this enclosure is not considered a building's lowest floor, provided that such enclosure in an area other than a basement is not built so that as to render the structure meets in violation of the applicable non-elevation design requirements of this chapter (i.e. provided there are adequate flood ventilation openings) for nonresidential construction, the enclosure is not considered the structure's lowest floor.



**2530. Manufactured home:** A structure, transportable in one or more sections, that 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.”

**2631. Manufactured home park or subdivision:** ~~means~~—A parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

**32. Mean sea level:** For purposes of the National Flood Insurance Program, the vertical datum to which Base Flood Elevations shown on a community's Flood Insurance Rate Map are referenced.

**2733. New construction:** For the purposes of determining insurance rates, structures for which the “start of construction” commenced on or after 1981, the effective date of ~~Tukwila’s original floodplain management regulations~~ an initial Flood Insurance Rate Map 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.

~~28. “New Manufactured Home Park or Subdivision” means a manufactured home park or subdivision for which the construction of facilities — including streets, utilities and concrete pads — is completed on or after 1981, the effective date of Tukwila’s original floodplain management regulations.~~

**2934.** “NFIP” means National Flood Insurance Program.

**35. One-hundred-year flood or 100-year flood:** See “Base flood.”

**36. Reasonably safe from flooding:** Development that is designed and built to be safe from flooding based on consideration of current flood elevation studies, historical data, high water marks and other reliable data known to the community. In unnumbered “A” zones where flood elevation information is not available and cannot be obtained by practicable means, “reasonably safe from flooding” means the lowest floor is at least two feet above the Highest Adjacent Grade.

**3037. Recreational vehicle:** A vehicle:

- a. Built on a single chassis;
- b. 400 square feet or less when measured at the largest horizontal projections;
- 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.

~~31. "Shallow Flooding Area" means a designated AO or AH zone on the Flood Insurance Rate Map (FIRM). The base flood depths range from one to three feet; a clearly defined channel does not exist; the path of flooding is unpredictable and indeterminate; and velocity flow may be evident. AO is characterized as sheet flow and AH indicates ponding.~~

~~3238. "Special Flood Hazard Area (SFHA)": means~~The land in the flood plain subject to a 1% or greater chance of flooding in any given year. It is also referred to as the 100-year flood elevation or the base flood elevation. These areas are designated on Flood Insurance Rate Maps (FIRMs) using the letters A or V. Special flood hazard areas include flood-prone areas designa ted by the City.

~~33. "SFHA" means Special Flood Hazard Area.~~

~~3439. Start of construction: means~~Includes substantial improvement and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement ~~occurred~~ was within 180 days from the date 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. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

~~3540. 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.

~~3641. Substantial Damage: means~~Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

~~3742. Substantial improvement: means~~Any ~~repair,~~ reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the assessed market value of the structure before the "start of construction" of the improvement. This term includes structures that have incurred "substantial damage," regardless of the actual repair work performed. The term does not, however, include either:

~~(1)a. Before the improvement or repair is started, or Any project for improvement of a structure to comply with correct previously identified existing violations of state or local health, sanitary, or safety code specifications that have been identified by the local code enforcement official and that are the minimum which is necessary to assure safe living conditions; or~~

~~(2)b. Before damage occurred, if the structure is being restored Any alteration of a "historic structure," structure listed on the National Registry of Historic Places or a State inventory of historic places provided that the alteration will not preclude the structure's continued designation as a "historic structure."~~

~~b. For the purposes of this definition, "substantial improvement" occurs when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure.~~

~~c. "Substantial improvement" does not include:~~

~~43. Variance: A grant of relief by a community from the terms of a floodplain management regulation.~~

~~44. Violation: The failure of a structure or other development to be fully compliant with the community's floodplain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in this chapter is presumed to be in violation until such time as that documentation is a grant of relief by a community from the terms of a floodplain management regulation.~~

~~45. Water surface elevation: The height, in relation to the vertical datum utilized in the applicable flood insurance study of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas.~~

~~46. Water Dependent: A structure for commerce or industry that cannot exist in any other location and is dependent on the water by reason of the intrinsic nature of its operations.~~

**Section 6.** TMC Section 16.52.040 is hereby reenacted to read as follows:

#### **16.52.040 Applicability**

This chapter applies to all special flood hazard areas within the City of Tukwila jurisdiction.

**Section 7.** TMC Section 16.52.050 is hereby reenacted to read as follows:

#### **16.52.050 Basis for Establishing the Areas of Special Flood Hazard Areas**

A. ~~The basis for~~ special flood hazard areas identified by the Federal Insurance Administration ~~is in~~ a scientific and engineering report entitled "The Flood Insurance

Study [\(FIS\)](#) for King County, Washington [and Incorporated Areas](#)” dated ~~December 6, 2001~~ August 19, 2020, and any revisions thereto, with ~~an~~ accompanying Flood Insurance Rate Maps (FIRMs) ~~dated August 19, 2020~~, and any revisions thereto, [are](#) hereby adopted by reference and declared to be a part of this chapter. The ~~Flood Insurance Study FIS~~ and the FIRMs are on file at 6300 Southcenter Boulevard, Suite 100.

B. The best available information for flood hazard area identification as outlined in TMC [Section 16.52.080.BC-2](#) shall be the basis for regulation until a new FIRM is issued which incorporates this data.

**Section 8.** TMC Section 16.52.060 is hereby reenacted to read as follows:

### **16.52.060 Interpretation**

In the interpretation and application of TMC Chapter 16.42, all provisions shall be:

1. Considered as minimum requirements;
2. Liberally construed in favor of the governing body; and
3. Deemed neither to limit nor repeal any other powers granted under State statutes.

**Section 9.** TMC Section 16.52.070 is hereby reenacted to read as follows:

### **16.52.070 [Warning and Disclaimer of Liability](#)**

The degree of flood protection required by TMC Chapter 16.52 is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This chapter does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This chapter shall not create liability on the part of the City of Tukwila, any officer or employee thereof, or the Federal Insurance Administration for any flood damages that result from reliance on this chapter or any administrative decision lawfully made hereunder.

**Section 10.** TMC Section 16.52.080 is hereby reenacted to read as follows:

### **16.52.080 Administration**

A. The Public Works Director is hereby appointed to administer ~~and~~, implement, [and enforce](#) this ordinance by granting or denying development permits ~~applications~~ in accordance with its provisions. [The Floodplain Administrator may delegate authority to implement these provisions.](#)

B. The Director may:

1. Restrict or prohibit ~~uses which might create a danger~~ development that is dangerous to health, safety, and property due to water or erosion hazards, or which ~~might increase result in damaging increases in~~ erosion, or in flood heights or ~~flood~~ velocities;
2. Require that ~~uses development~~ vulnerable to floods, ~~including facilities serving such uses, be constructed to protect~~ be protected against flood damage at the time of initial construction;
3. Control the alteration of ~~surface water features~~ such as natural floodplains, stream channels, and natural protective barriers, ~~that retain which help~~ accommodate or channel flood waters;
4. Control filling, grading, dredging and other development which may increase flood damage; and
5. Prevent or regulate the construction of flood barriers that would unnaturally divert floodwaters or that might increase flood hazards in other areas.

BC. The Director's duties shall include, but shall not be limited to:

1. *Permit Review.*
  - a. Review all development permits to determine that the permit requirements of this chapter have been satisfied.
  - b. Review all development permits to determine that all necessary permits have been obtained from those Federal, State, or local governmental agencies from which prior approval is required.
  - c. The site is reasonably safe from flooding.
  - ed. Review all development permits to determine if the proposed development is located in the floodway, and ensure that the encroachment provisions of TMC Section 16.52.110, "Floodways," are met.
  - e. Notify FEMA when annexations occur in the Special Flood Hazard Area.

2. *Special Flood Hazard Area.*

- a. When base flood elevation data has not been provided in A zones, 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 TMC Chapter 16.52.
- b. Where ~~flood~~ elevation data is not available either through the ~~Flood Insurance Study FIS~~, FIRM, or from another authoritative source (TMC Section 16.52.080), ~~the Director shall review~~ applications for building permits floodplain development shall be reviewed to assure that proposed construction will be *reasonably safe from flooding*. 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 the highest adjacent grade in these zones may result in higher insurance rates.

c. Where needed, the Director shall interpret exact location of the boundaries of the areas of special flood hazards – for example, where there appears to be a conflict between a mapped boundary and actual field conditions. The Director shall provide the person contesting the boundary location a reasonable opportunity to appeal the interpretation. Such appeals shall be granted consistent with the standards of Section 60.6 of the Rules and Regulations of the National Flood Insurance Program (44 CFR 59-76).

### 3. Changes to Special Flood Hazard Area.

a. If a project will alter the Base Flood Elevation (BFE) or boundaries of the Special Flood Hazard Area (SFHA), then the project proponent shall provide the community with engineering documentation and analysis regarding the proposed change. If the change to the BFE or boundaries of the SFHA would normally require a Letter of Map Change, then the project proponent shall initiate, and receive approval of, a Conditional Letter of Map Revision (CLOMR) prior to approval of the development permit. The project shall be constructed in a manner consistent with the approved CLOMR.

b. If a CLOMR application is made, the project proponent shall also supply the full CLOMR documentation package to the Floodplain Administrator to be attached to the floodplain development permit, including all required property owner notifications.

### 34. Watercourse Alteration.

a. Notify adjacent communities and the Department of Ecology (DOE) prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration through appropriate notification means. (44 CFR 60.3(b)(6))

b. Require that maintenance be provided within the altered or relocated portion of said watercourse so that the flood carrying capacity is not diminished.

### 45. Information Management to be Obtained and Maintained.

a. Where base flood elevation data is provided through the ~~Flood Insurance Study, FIS, FIRM, or required as in TMC Section 16.52.080.BC.2~~, obtain and maintain a record of the actual (as-built) elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and ~~ascertain~~ whether or not the structure contains a basement.

b. For all new or substantially improved flood-proofed nonresidential structures where base flood elevation data is provided through the ~~Flood Insurance Study, FIS, FIRM, or as required in TMC Section 16.52.080, BC.2:~~

(1) Obtain and maintain a record of the elevation (in relation to mean sea level) to which the structure was flood-proofed, ~~and,~~

(2) Maintain the flood-proofing certifications required in TMC [Section 16.52.090, D.3.](#)

c. Certification required by TMC [Section 16.52.110.A.1.](#)

d. Records of all variance actions, including justification for their issuance.

e. Improvement and damage calculations.

ef. Maintain for public inspection all records pertaining to the provisions of this ordinance.

**Section 11.** TMC Section 16.52.090 is hereby reenacted to read as follows:

### **16.52.090 Permits**

A. A Flood Zone Control Permit (FZCP) shall be obtained before construction or development begins within any area of special flood hazard established in TMC [Section 16.52.050.](#) The permit shall be for all structures including manufactured homes, as set forth in the “Definitions,” and for all development including clearing, filling, grading, and other activities, also as set forth in the “Definitions.”

B. Application for an FZCP shall be submitted with the project application for a clearing and grading permit, shoreline permit, plat or subdivision permit, or a building permit, whichever comes first.

C. An FZCP is a Type 1 permit processed pursuant to TMC [Section 18.108.010.](#)

D. Application for an FZCP shall be made on forms furnished by the City and shall meet the City’s standards for plan submittals. The applicant must provide the following information:

1. Elevation in relation to mean sea level, of the lowest floor (including basement) of all structures recorded on a current elevation certificate with Section B completed by the Floodplain Administrator;

2. Elevation in relation to mean sea level to which any structure has been flood-proofed;

3. Where a structure is to be flood-proofed, certification by a registered professional engineer or architect that the flood-proofing methods for any nonresidential structure meet ~~the~~ flood-proofing criteria in TMC [Section 16.52.100 B.2;](#) ~~and~~

4. Description of the extent to which a watercourse will be altered or relocated as a result of proposed development;

5. Where development is proposed in a floodway, an engineering analysis determination of no rise of the Base Flood Elevation, and

6. Any other such information that may be reasonably required by the Floodplain Administrator in order to review the application.

**Section 12.** TMC Section 16.52.100 is hereby reenacted to read as follows:

### **16.52.100 Standards**

**A. General Standards.** In all areas of special flood hazards, the following standards are required:

1. *Elevation.* Where flood elevation data is not available, either through the FIRM or from another authoritative source, all new construction and substantial improvements shall be elevated at least two feet above the highest adjacent grade.

2. *Anchoring.*

a. All new construction and substantial improvements, including those related to manufactured homes, shall be anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.

b. All manufactured homes ~~must likewise shall~~ be anchored to prevent flotation, collapse, or lateral movement, and shall be installed using methods and practices that minimize flood damage. Anchoring methods may include, but are not limited to, use of over-the-top or frame ties to ground anchors ~~(reference FEMA's "Manufactured Home Installation in Flood Hazard Areas" guidebook for additional techniques).~~

3. *Construction Materials and Methods.*

a. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.

b. All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.

c. All new construction and substantial improvements on slopes shall have drainage paths to guide floodwaters around and away from proposed structures.

d. 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.

4. *Storage of Materials and Equipment.*

a. The storage or processing of materials that could be injurious to human, animal, or plant life if released due to damage from flooding are prohibited in special flood hazard areas.

b. Storage of other material or equipment may be allowed if not subject to damage by floods and if firmly anchored to prevent flotation, or if readily removable from the area within the time available after flood warning.



45. Utilities.

- a. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the systems;
- b. A proposed water well shall be approved by Department of Ecology ~~(WAC 173-160-171)~~ and be located on high ground that is not in the floodway;
- c. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters; and
- d. Onsite waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

56. Subdivisions Proposals and Development. All subdivisions, as well as new development shall:

- a. ~~All subdivision proposals shall~~ bBe consistent with the need to minimize flood damage;
- b. ~~All subdivision proposals shall~~ hHave public utilities and facilities – such as sewer, gas, electrical and water systems – located and constructed to minimize or eliminate flood damage;
- c. ~~All subdivision proposals shall~~ hHave adequate drainage provided, to reduce exposure to flood damage; and,
- d. ~~Where base flood elevation data has not been provided or is not available from another authoritative source, it shall be generated for~~ Where subdivision proposals and other proposed developments ~~that~~ contain at least greater than 50 lots or 5 acres (whichever is ~~less the lesser~~), base flood elevation data shall be included as part of the application.

**B. Specific Standards.** In all areas of special flood hazards where Base Flood Elevation data has been provided as set forth in TMC Section 16.52.050 or TMC Section 16.52.080.C.2, the following provisions are required:

1. *Residential Construction.*

a. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated one foot or more above the Base Flood Elevation. Mechanical equipment and utilities shall be waterproofed or elevated one or more feet above the Base Flood Elevation.

b. 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 floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect, and must meet or exceed the following minimum criteria:

(1) 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.

(2) The bottom of all openings shall be no higher than one foot above grade.

(3) Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

## 2. *Nonresidential Construction:*

a. New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor, including basement, elevated one foot or more above the base flood elevation, or elevated as required by ASCE 24, whichever is greater, or together with attendant utility and sanitary facilities, shall:

(1) Be dry flood-proofed so that below one foot or more above the base flood level the structure is watertight with walls substantially impermeable to the passage of water or dry flood-proofed to the elevation required by ASCE 24, whichever is greater;

(2) Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and

(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 ~~that engineer's or architect's~~ their development and/or review of the structural design, specifications and plans. Such certifications shall be provided to the official as set forth in TMC Section 16.52.080.C.5.

b. Nonresidential structures that are elevated, not flood-proofed, must meet the same standards for space below the lowest floor as described in TMC [Section 16.52.100, B.1.b.](#), for residential construction.

c. The City shall notify applicants who propose to flood-proof nonresidential buildings that flood insurance premiums will be based on rates that are one foot below the flood-proofed level (e.g. a building flood-proofed to the base flood level will be rated as one foot below). Flood-proofing the building an additional foot will reduce insurance premiums significantly.

## 3. *Manufactured Homes:*

a. All manufactured homes to be placed or substantially improved on sites, outside of a manufactured home park or subdivision, in a new manufactured home park or subdivision, in an expansion to an existing manufactured home park or subdivision, or in an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as the result of a flood, shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated one foot or more above the base flood elevation and be securely anchored to an adequately-designed foundation system to resist flotation, collapse and lateral movement.

b. Manufactured homes to be placed or substantially improved on sites in an existing manufactured home park or subdivision that are not subject to the above manufactured home provisions shall be elevated so that either:

(1) The lowest floor of the manufactured home is elevated one foot or more above the base flood elevation, or

(2) The manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade and be securely anchored to an adequately designed foundation system to resist flotation, collapse and lateral movement.

4. *Recreational Vehicles.* Recreational vehicles placed on sites are required to either:

a. Be on the site for fewer than 180 consecutive days;

b. Be fully licensed and ready for highway use, on its wheels or jacking system, be attached to the site only by quick disconnect type utilities and security devices, and have no permanently attached additions; or

c. Meet the requirements for manufactured homes, including the elevation and anchoring requirements for manufactured homes.

5. *Enclosed Areas Below the Lowest Floor:* If buildings or manufactured homes are constructed or substantially improved with fully-enclosed areas below the lowest floor, the areas shall be used solely for parking of vehicles, building access, or storage.

C. **Green River.** In addition to the general and specific standards in the section, the following standards apply to all areas adjacent to the Green River:

1. *Construction/Reconstruction of Dikes/Levees:* As part of the flood-proofing for developments adjacent to the Green River through Tukwila, construction or reconstruction of the dike/levee system, in accordance with dike/levee plans and engineering studies, and in accordance with the Green River Management Agreement (AG No. 85-043), will be required as part of the plan submittal.

2. If dike/levee improvements are not required, and the natural riverbank is allowed as bank protection, then a riverbank stability analysis shall be provided to the Public Works Department for review as part of the plan submittal.

3. Dedication of levee/dike/riverbank access construction and maintenance easements on all properties adjacent to the Green River shall, as part of their development, dedicate construction and maintenance easements for access and maintenance of existing or future dikes/levees/riverbanks along the Green River as part of their plan submittal. These easements shall be provided in such a manner so that immediate access is allowed from other public rights-of-way for maintenance and construction of dikes/levees.

**Section 13.** TMC Section 16.52.110 is hereby reenacted to read as follows:

### **16.52.110 Floodways**

A. ~~Floodways are~~ Located within areas of special flood hazard areas established in TMC Section 16.52.050 are areas designated as floodways. ~~Floodwaters within~~ Since the floodways are is an extremely hazardous area due to the high flow velocities velocity ~~These waters of floodwaters that can~~ carry debris ~~and potential projectiles,~~ and have a high potential for erosion increase erosion potential, the following provisions apply:

~~B. The following provisions apply to floodways within the City:~~

~~1. Variances shall not be issued for proposals within a designated floodway, if any increase in flood levels during the base flood discharge would result.~~

21. No Rise Standard. Prohibit encroachments, including fill, new construction, substantial improvements, and other development, unless certification by a registered professional engineer certifies, is provided demonstrating, through hydrologic and hydraulic analyses performed in accordance with standard engineering practice, that the proposed encroachment would not result in any increase in flood levels during the occurrence of the base flood discharge.

~~3. Prohibit construction of new residential structures.~~

~~4. Allow repairs, reconstruction or improvements to residential structures, as long as the structure's ground floor area does not increase and the cost of the work does not exceed 50% of the market value of the structure either:~~

~~a. before the repair, or reconstruction is started, or~~

~~b. if the structure has been damaged, and is being restored, before the damage occurred.~~

2. Residential Construction in Floodways. Construction or reconstruction of residential structures is prohibited within designated floodways, except for: (i) repairs, reconstruction, or improvements to a structure that do not increase the ground floor area; and (ii) repairs, reconstruction, or improvements to a structure, the cost of which does not exceed 50 percent of the market value of the structure either, (a) before the repair or reconstruction is started, or (b) if the structure has been damaged, and is being restored, before the damage occurred. Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications that have been identified by the local code enforcement official and which that are the minimum necessary to assure safe living conditions, or to structures identified as historic places, shall not be included may be excluded in the 50 percent.

3. Substantially Damaged Residences in Floodway.

a. For all substantially damaged residential structures located in a designated floodway, the Floodplain Administrator may make a written request that the Department of Ecology assess the risk of harm to life and property posed by the specific conditions of the floodway. Based on analysis of depth, velocity, flood-related erosion,

channel migration, debris load potential, and flood warning capability, the Department of Ecology may exercise best professional judgment in recommending to the local permitting authority repair, replacement, or relocation of a substantially damaged structure consistent with WAC 173-158-076. The property owner shall be responsible for submitting to the local government and the Department of Ecology any information necessary to complete the assessment. Without a favorable recommendation from the Department for the repair or replacement of a substantially damaged residential structure located in the regulatory floodway, no repair or replacement is allowed per WAC 173-158-070(1).

b. Before the repair, replacement, or reconstruction is started, all requirements of the NFIP, the state requirements adopted pursuant to 86.16 RCW, and all applicable local regulations must be satisfied. In addition, the following conditions must be met:

(1) There is no potential safe building location for the replacement residential structure on the same property outside the regulatory floodway.

(2) A replacement residential structure is a residential structure built as a substitute for a legally existing residential structure of equivalent use and size.

(3) Repairs, reconstruction, or replacement of a residential structure shall not increase the total square footage of floodway encroachment.

(4) The elevation of the lowest floor of the substantially damaged or replacement residential structure is a minimum of one foot higher than the [Base Flood Elevation](#) .

(5) New and replacement water supply systems are designed to eliminate or minimize infiltration of floodwater into the system.

(6) New and replacement sanitary sewerage systems are designed and located to eliminate or minimize infiltration of floodwater into the system and discharge from the system into the floodwaters.

(7) All other utilities and connections to public utilities are designed, constructed, and located to eliminate or minimize flood damage.

~~CB. All Other Building Standards Apply in the Floodway.~~ If ~~proposed work satisfies TMC 16.52.100, B.1-4, TMC Section 16.52.110.A.1 is satisfied or construction is allowed pursuant to TMC Section 16.52.110.A.2,~~ all new construction and substantial improvements shall comply with all applicable ~~standards in~~ flood hazard reduction provisions of TMC Section 16.52.100.

**Section 14.** TMC Section 16.52.120 is hereby reenacted to read as follows:

### **16.52.120 Critical Facility**

Construction of new critical facilities shall be, to the extent possible, located outside the limits of the Special Flood Hazard Area (SFHA). The Director may permit construction of a new critical facility within the SFHA if no feasible alternative is available. Critical facilities constructed within the SFHA shall have the lowest floor

elevated three feet above base flood elevation or elevated to the 500-year flood elevation, whichever is higher. Flood-proofing and sealing measures must be taken to ensure that toxic substances will not be displaced by or released into floodwaters. Access to and from the critical facility should also be protected to the height utilized above. Access routes elevated to or above the level of the base flood elevation shall be provided to all critical facilities to the extent possible.

**Section 15.** TMC Section 16.52.125 is hereby established to read as follows:

#### **16.52.125 Compliance**

All development within special flood hazard areas is subject to the terms of this ordinance and other applicable regulations.

**Section 16.** TMC Section 16.52.130 is hereby reenacted to read as follows:

#### **16.52.130 Penalties**

No structure or land shall hereafter be constructed, located, extended, converted or altered without full compliance with the terms of this chapter and other applicable regulations. Violations of the provisions of this chapter by failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with conditions) shall constitute a misdemeanor. Any person who violates this chapter or fails to comply with any of its requirements shall upon conviction thereof be fined not more than \$1,000, or imprisoned for not more than 90 days, or both, for each violation, and in addition shall pay all costs and expenses involved in the case. Nothing herein contained shall prevent the City of Tukwila from taking such other lawful action as is necessary to prevent or remedy any violation.

**Section 17.** TMC Section 16.52.140 is hereby reenacted to read as follows:

#### **16.52.140 Abrogation and Greater Restrictions**

This chapter is not intended to repeal, abrogate, or impair any existing easements, covenants or deed restrictions. However, where this chapter and another ordinance, easement, covenant or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

**Section 18. Corrections by City Clerk or Code Reviser.** Upon approval of the City Attorney, the City Clerk and the code reviser are authorized to make necessary corrections to this ordinance, including the correction of clerical errors; references to other local, state or federal laws, codes, rules, or regulations; or ordinance numbering and section/subsection numbering.

**Section 19. Severability.** This ordinance and the various parts thereof are hereby declared to be severable. Should any Section of this ordinance be declared by the courts to be unconstitutional or invalid, such decision shall not affect the validity of the ordinance as a whole, or any portion thereof other than the Section so declared to be unconstitutional or invalid.

**Section 20. Effective Date.** This ordinance or a summary thereof shall be published in the official newspaper of the City, and shall take effect and be in full force five days after passage and publication as provided by law.

PASSED BY THE CITY COUNCIL OF THE CITY OF TUKWILA, WASHINGTON, at a Regular Meeting thereof this \_\_\_\_\_ day of \_\_\_\_\_, 2020.

ATTEST/AUTHENTICATED:

\_\_\_\_\_  
Christy O'Flaherty, MMC, City Clerk

\_\_\_\_\_  
Allan Ekberg, Mayor

APPROVED AS TO FORM BY:

Filed with the City Clerk: \_\_\_\_\_  
Passed by the City Council: \_\_\_\_\_  
Published: \_\_\_\_\_  
Effective Date: \_\_\_\_\_  
Ordinance Number: \_\_\_\_\_

\_\_\_\_\_  
Kari L. Sand, City Attorney