

Attachment “~~BA~~”

CHAPTER 3.20—FLOOD DAMAGE PROTECTION

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3.20.010 Intent.

The intent of this chapter is for Spokane County to comply with the requirements of the National Flood Insurance Program and Chapter 86.16 RCW.

3.20.020 Purpose.

The purpose of this chapter is to promote the public health, safety, and general welfare; reduce the annual cost of flood insurance, and to minimize public and private loss due to flood conditions in specific areas by provisions designed:

- (1) To protect human life and health;
- (2) To minimize expenditures of public money and costly flood control projects;
- (3) To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- (4) To minimize prolonged business interruptions;
- (5) To 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) To 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) To ensure that potential buyers are notified that property is in an area of special flood hazard;
- (8) To ensure that those who occupy the areas of flood hazard assume responsibility for their actions.

3.20.030 Methods of Reducing Flood Losses.

In order to accomplish its purposes, this chapter includes methods and provisions for:

- (1) Restricting or prohibiting uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;
- (2) Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- (3) Controlling the alteration of natural flood plains, stream channels, and natural protective barriers, which help accommodate or channel flood waters;
- (4) Controlling filling, grading, dredging, and other development which may increase flood damage; and
- (5) Preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or may increase flood hazards in other areas.

3.20.100 Definitions.

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

- (1) "A ZONE" means the areas of special flood hazard where detailed engineering studies are not available for floodplain management. On-site inspections and/or flood studies may be necessary in order to determine from the best available information, the elevation of the regulatory flood in such areas.
- (2) "AE ZONE" means areas of special flood hazard where base flood elevations have been determined based on detailed engineering studies documented in the Flood Insurance Study(FIS).
- (3) "APPEAL" means a request for review of an administrative determination by the County Engineer under the provisions of this chapter or request for variance.
- (4) "AREA OF SHALLOW FLOODING" means a designated AO or AH zone on the Flood Insurance Rate Map (FIRM) and which has the following characteristics:

Comment [SC1]: Re-alphabetized due to deletion of unnumbered A.

Comment [SC2]: Re-alphabetized due to new deletion of numbered A.

- (a) The base flood depths range from one to three feet;
- (b) A clearly defined channel does not exist;
- (c) The path of flooding is unpredictable and indeterminate; and
- (d) Velocity flow may be evident.
- (e) "AO" is characterized as sheet flow and "AH" indicates ponding.

~~(3)~~(5) "AREA OF SPECIAL FLOOD HAZARD" means the land in the floodplain within a community subject to a one percent or greater chance of flooding in any given year. Designations on the map ~~always includes the letter A or B A, AE, AH, AO, and shaded X zones.~~

Comment [SC3]: Added to incorporate new FEMA zone terminology.

~~(4)~~(6) "BASE FLOOD" means the flood having a one percent chance of being equaled or exceeded in any given year, also referred to as the "100-year flood."

~~(5)~~(7) "BASEMENT" means any area of the building having its floor subgrade (below ground level) on all sides.

~~(6)~~(8) "COUNTY ENGINEER" means the Spokane County Engineer or his or her designee.

(9) "CRITICAL FACILITY" means a facility for which even a slight chance of flooding would be too great. Critical facilities include, but are not limited to, schools, child care facilities, hospitals, police, fire and emergency response installations, nursing homes, or installations which produce, use, or store hazardous materials or hazardous waste.

~~(10)~~ "CUMULATIVE SUBSTANTIAL DAMAGE" means flood-related damages sustained by a structure on two separate occasions during a 10-year period for which the cost of repairs at the time of each such flood event, on the average, equals or exceeds 25 percent of the ~~assessed market value of the structure before the damage occurred.~~

Comment [SC5]: Added per WA model ord, insurance related, not mandatory, requested by FEMA

~~(8)~~(11) "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~~ located within the area of special flood hazard.

Comment [SC4]: Changed back to market for consistency with substantial development definition per BOCC recommendation.

Comment [SC6]: Added for compliance with WA Model Ord.

(12) "ELEVATED BUILDING" means for insurance purposes, a nonbasement building that has its lowest elevated floor raised above ground level by foundation walls, shear walls, posts, piers, pilings, or columns.

~~(11)~~(13) "ELEVATION CERTIFICATE" means the official form (Federal Emergency Management Agency (FEMA) Form 81-31) used to track development provide elevation information necessary to ensure compliance with community floodplain management ordinances, and determine the proper insurance premium rate. The form shall be completed by a surveyor licensed in the State of Washington with Section B completed by the County Engineer.

Comment [SC7]: Added per WA Model Ord.

~~(12)~~(14) "EXISTING MANUFACTURED HOME PARK OR SUBDIVISION" means a manufactured home park 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 the effective date of the adopted floodplain management regulations.

~~(13)~~(15) “EXPANSION TO AN EXISTING MANUFACTURED HOME PARK OR SUBDIVISION” means the preparation of additional sites by the construction of facilities for servicing 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)~~(16) “FILL” means any material, including, but not limited to, earth, clay, sand, concrete, rubble, woodchips, bark or waste of any kind which is placed, stored or dumped upon the surface of the ground resulting in an increase in the natural surface elevation.

~~(15)~~(17) “FLOOD or FLOODING” means a general and temporary condition of partial or complete inundation of normally dry land areas from:

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

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

~~(16)~~(18) “FLOOD INSURANCE RATE MAP” (FIRM) means the official map on which the Federal Insurance Administration has delineated both the areas of special flood hazards and the floodway boundaries ~~risk premium zones~~ applicable to the community.

~~(17)~~(19) “FLOOD INSURANCE STUDY” (FIS) means the official report provided by the Federal Insurance Administration that includes flood profiles, the floodway data, summary of discharges ~~Flood Boundary Floodway Map~~, and the water surface elevation of the base flood.

~~(18)~~(20) “FLOODPLAIN” means a river, stream, watercourse, major drainage area or lake and the adjoining land areas which are likely to be flooded.

~~(19)~~(21) “FLOODPROOFING” means any combination of structural and nonstructural additions, changes or adjustments to properties and structures which reduce or eliminate flood damages to lands, water and sanitary facilities, structures and contents of buildings.

~~(20)~~(22) “FLOODPLAIN DEVELOPMENT PERMIT” means written approval applied for and obtained in accordance with such general rules and regulations as established under provisions of this chapter.

~~(21)~~(23) “FLOOD PROTECTION ELEVATION” means one foot above the base flood elevation.

~~(22)~~(24) “FLOOD RESISTANT MATERIAL” means any building material capable of withstanding direct and prolonged contact with floodwaters without sustaining significant damage. Prolonged contact means at least 72 hours. Significant damage is any damage requiring more than low cost cosmetic repair, such as but not limited to, painting.

~~(23)~~(25) “FLOOD STORAGE AREAS” means floodplain areas designated on the FIRM where storage and in some cases infiltration of flood waters has been taken into account in reducing flood discharges. Flood storage areas may also have floodwater conveyance and floodway characteristics. These flood storage areas as determined in detailed engineering studies, serve an important role in the reduction of downstream base flood elevations. Therefore, additional special requirements apply to development in the flood storage areas as set forth in section 3.20.690.

~~(24)~~(26) “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 by more than one foot.

Comment [SC8]: FIRM and FIS definitions updated to current document content. Revision made per FEMA comment.

Comment [SC9]: Deleted section 3.20.240 and consolidated in definition as redundant.

(27) "FLOODWAY FRINGE" means that portion of a floodplain which is inundated by floodwaters but is not within a defined floodway. Floodway fringes serve as temporary storage areas for floodwaters.

~~(25)(28)~~ "INCREASED COST OF COMPLIANCE" (ICC) means a flood insurance claim payment up to \$30,000 directly to a property owner for the cost to comply with floodplain management regulations after a direct physical loss caused by a flood. Eligibility for an ICC claim can be through a single instance of "substantial damage" or as a result of a "cumulative substantial damage." (More information can be found in FEMA ICC Manual 301). Note: elevating a structure may not be allowable if in conflict with other ordinances.

Comment [SC10]: Added at FEMA request, per WA Model Ord. optional as ins. related. Note added per BOCC recommendation.

~~(26)(29)~~ "INFILTRATION" means the infiltration of floodwater into the ground which may be taken into account in reducing flood discharges.

~~(27)(30)~~ "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 Section 3.20.610(2) of this chapter.

(31) "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 connected to the required utilities. The term "manufactured home" does not include a "recreational vehicle."

~~(28)(32)~~ "NEW CONSTRUCTION" means structures, works or development for which the "start of construction" commenced on or after the effective date of this chapter.

Comment [SC11]: Reordered for correct alphabetical order

~~(29)(33)~~ "NEW MANUFACTURED HOME PARK OR MANUFACTURED HOME 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 on or after the effective date of this chapter.

~~(30)~~ "NEW CONSTRUCTION" means structures, works or development for which the "start of construction" commenced on or after the effective date of this chapter.

~~(31)~~ "NUMBERED A ZONES" or "AE ZONES" on new FIRMs, means special flood hazard areas where base flood elevations have been determined based on detailed engineering studies documented in the Flood Insurance Study.

~~(32)(34)~~ "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.

~~(35)~~ "SHADED X ZONES" means special flood hazard areas of 0.2% annual chance flood, areas of 1% chance flood with average depths of less than one foot or with drainage areas less than one square mile, and areas protected by levees from the 1% annual chance flood. Base (1% annual chance) flood elevations may be determined based on detailed engineering studies documented in the FIS. On-site

~~inspections and/or flood studies may be necessary in areas that do not already have order to determine from the best available information the elevation of the base flood determined in such areas.~~

Comment [SC12]: Added to clarify how shaded X zones are to be regulated. Additional clarification in blue recommended by BOCC.

~~(33)(36)~~ **“(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 slabs 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.

~~(34)(37)~~ **“(STRUCTURE)”** means a walled and roofed building, including a gas or liquid storage tank, which is principally above ground.

~~(35)(38)~~ **“(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 damage occurred.

~~(36)(39)~~ **“(SUBSTANTIAL IMPROVEMENT)”** means any repair, reconstruction, or improvement of a structure, the cost of which ~~calculated cumulatively with any previous improvements during the previous 10 years~~ equals or exceeds 50 percent of the ~~fair market~~~~assessed~~~~fair market~~ value of the structure ~~either:~~

Comment [SC13]: Added per FEMA guidance to prevent back to back permit applications to do substantial improvements without protecting from flood damage. Proposed change deleted at recommendation of BOCC

~~(a)~~(a) Before the improvement or repair is started, or

~~(b)~~(b) If the structure has been damaged and is being restored, before the damage occurred. For the purposes of this definition—~~“~~“substantial improvement” is considered to occur 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.

The term does not, however, include either:

~~(c)~~(c) Any project for improvement of a structure to comply with existing state or local health, sanitary, or safety code specifications which have been previously identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions, or

~~(d)~~(d) Any alteration of a structure listed on the National Register of Historic Places, a State Inventory of Historic Places or locally designated landmarks.

~~Assessed value of the existing structure shall be based on the assessed value of the structure as determined by the County Assessor's office. The value of the proposed work shall be determined using the current valuation schedule published by International Code Council in the Building Safety Journal. One or more licensed contractor estimates may also be used at the discretion of the County Engineer.~~

~~A title notice shall be placed on each occasion of a non-substantial improvement to a structure that notifies future owners of impacts to their ability to make future improvements.~~

Comment [SC14]: Added title notice at recommendation of Planning Commission to insure future owners are aware of impacts to ability to make future improvements. Proposed change deleted at recommendation of BOCC

~~(37)~~ **“(UNNUMBERED A ZONES)” or “A ZONES”** on new FIRM's means the special flood hazard areas where detailed engineering studies are not available for floodplain management. On site inspections and/or flood studies may be necessary in order to determine from the best available information the elevation of the regulatory flood in such areas.

~~(38)~~(40) "VARIANCE" means a grant of relief from the requirements of this chapter which permits construction in a manner that would otherwise be prohibited by this chapter.

~~(39)~~(41) "WETLAND" or "WETLANDS" means those areas in Spokane County that are inundated or saturated by surface or ground water at a frequency and a duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands may include those artificial wetlands intentionally created from nonwetland areas created to mitigate conversion of wetlands, if permitted by the county or city (RCW 36.70A.030). For identifying and delineating a wetland, Spokane County shall rely on the methodology contained in the Wetland Delineation Manual.

~~(40)~~(42) "WORKS" means any bulkhead, fixed dock, dam, wall, wharf, embankment, levee, dike, pile, bridge, improved road, abutments, projection, excavation, channel rectification, conduit, culvert, wire, fence, rock, gravel, refuse, fill or other similar modification or improvement attached to, or affixed upon, the realty.

3.20.200 Lands to which this Chapter Applies.

This chapter shall apply to all areas of special flood hazards within the jurisdiction of Spokane County.

3.20.210 Basis for Establishing the Areas of Special Flood Hazard.

The areas of special flood hazard identified by the Federal Insurance Administration in a scientific and engineering report entitled "The Flood Insurance Study for Spokane County, Washington and Incorporated Areas" (the Study) with accompanying Flood Insurance Rate Maps (FIRM) dated July 6, 2010, including any revisions or amendments hereafter to the Study and/or the FIRM, are hereby adopted by reference and declared to be a part of this chapter. Copies of the study, maps and any revisions are available at the office of the County Engineer. The best available information for flood hazard area identification as outlined in Section 3.20.340(4) shall be the basis for regulation until a new FIRM is issued that incorporates data utilized under 3.20.340 (4).

3.20.220 Abrogation and Greater Restrictions.

This chapter is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions.

3.20.230 Critical Facilities.

The following provisions apply to Critical Facilities in order to afford additional protection.

- (1) The 500-year frequency flood shall be the minimum standard.
- (2) Construction of new critical facilities shall be located outside the limits of the 500-year floodplain when identified on the community's ~~Flood Insurance Rate Map (FIRM)~~, except when no feasible alternative site is available. Critical facilities shall have the lowest floor elevated to or above the level of the 500-year frequency flood. Floodproofing and sealing measures shall be taken to ensure that toxic substances will not be displaced by or released into floodwaters.
- (3) Access routes shall be elevated to or above the level of the 500-year frequency flood to the extent possible.

~~3.20.240 Flood Storage Areas.~~

~~The floodplain in the lower reaches of Chester Creek, as well as other floodplains in Spokane County, contain areas which allow for the storage and infiltration of floodwaters. Where these abilities have been identified in the Flood Insurance Study, flood storage areas have been designated on the Flood Insurance Rate maps. These flood storage areas as determined in detailed engineering studies, serve an important role in the reduction of downstream base flood elevations. Therefore, additional special requirements apply to development in the flood storage areas as set forth in section 3.20.600.~~

Comment [SC15]: Incorporated in definition of flood storage areas to avoid redundancy.

3.20.2450 Wetlands Management.

Proposals for development within special flood hazard areas shall be reviewed for possible impacts on wetlands as identified by the Spokane County Critical Areas Ordinance (chapter 11.20) as amended, and/or the National Wetland Inventory as amended. The development proponent shall provide sufficient information to allow the County Engineer to ensure that development activities shall not disrupt any of the wetland's ability to reduce flood and storm hazards.

3.20.2560 Warning and Disclaimer of Liability.

The degree of flood protection required by this chapter is considered by the Federal Insurance Administrator to be reasonable for regulatory purposes, as 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 imply or create liability on the part of Spokane County or any officer or employee thereof, for any flood damages that result from reliance on this chapter or any administrative decision lawfully made hereunder. Spokane County does not warrant the accuracy of the final flood elevation determinations by the Federal Insurance Administrator, required for adoption by Spokane County.

3.20.300 Floodplain Development Permit Required.

A floodplain development permit shall be obtained before any development, structure, manufactured home, works or fill is undertaken, constructed, located, extended, connected or altered on any property all or a portion of which is located in any area of special flood hazard established in section 3.20.210.

3.20.310 Application for Floodplain Development Permit.

Application for a floodplain development permit shall be made to the Spokane County Engineer on forms furnished by the County Engineer. Submittals shall include, but not be limited to plans in multiple copies drawn to scale showing the nature, location, dimensions, and elevations of the area in question; existing or proposed structures, works, fill, storage of materials, drainage facilities, and the location of the foregoing. Specifically, the following information is required.

- (1) Elevation in relation to mean sea level, United States Geological Survey (USGS), if available, of the lowest floor (including basement) of all structures recorded by a surveyor licensed in the State of Washington on a current elevation certificate with section B completed by the ~~local official~~County Engineer; and
- (2) Elevation in relation to mean sea level, as defined by USGS, if available, to which any structure or works has been floodproofed; and
- (3) Certification by a licensed civil engineer or licensed architect, registered as such by the State of Washington, that the anchoring, materials, and construction and floodproofing methods for any structure meet the criteria in Sections 3.20.510, 3.20.520, 3.20.610(2), and 3.20.620; and
- (4) Description of the extent to which any watercourse will be altered or relocated as a result of proposed development; and

- (5) When USGS benchmarks are not available, the elevation can be measured from any base elevation data available from a federal, state, or other source approved by the County Engineer.

The above information will be maintained in the offices of the County Engineer as specified in section 3.20.340(2).

3.20.320 Responsibility of All Public Works Directors.

It shall be the responsibility of the Division of Building and Planning Director, Division of Utilities Director and the County Engineer (acting as coordinator) to:

- (1) Assist the Federal Insurance Administrator's request in delineating the limits of the areas having special flood hazards on available local maps of sufficient scale and to identify the location of building sites.
- (2) Provide information as requested by the Federal Insurance Administrator on locally available present uses and occupancy of the floodplain area.
- (3) Cooperate with federal, state, and local agencies and private firms which undertake to study, survey, map, and identify floodplain areas.
- (4) Cooperate with local communities on management of adjoining floodplain areas in order to prevent aggravation of existing hazards.
- (5) Submit to the Federal Insurance Administrator periodic reports as the Insurance Administrator may require.

3.20.330 Designation of the County Engineer.

The County Engineer is appointed as coordinator to administer and implement this chapter by granting or denying floodplain development permits in accordance with its provisions.

3.20.340 Duties and Authority of the County Engineer.

Duties of the County Engineer shall include, but not be limited to:

- (1) Permit review.
 - (a) Review all development permits to determine that the requirements of this chapter have been satisfied;
 - (b) ~~Review all development permits to determine that all necessary permits have been or will be obtained from those Federal, State, or local governmental agencies from which prior approval is required. Notify applicants of known related permits required by federal, state, or local agencies;~~
 - (c) Impose conditions in conjunction with the approval of floodplain development permits necessary to ensure compliance with the purposes and provisions of this chapter. **The County Engineer may waive some provisions if the proposed development is reasonably safe from flooding, or is not likely to substantially alter flood flows, flood damage potential is limited and where public health, safety and property are not affected;**
 - (d) Review all development permits to determine if the proposed development is located in the floodway and to ensure that the encroachment provisions of this chapter are met.
- (2) Information to be Obtained and Maintained.

Comment [SC16]: Change needed to correct to WA Model Ordinance and FEMA regulations.

Comment [SC17]: Added at recommendation of BOCC to allow County Engineer flexibility in imposing conditions.

(a) Where base flood elevation data is provided through the FIS, FIRM, or as required in section 3.20.340(4), Obtain and record the actual (as-built) elevation (in relation to mean sea level), if available, (see section 3.20.310(5)) of the lowest floor, including basement, of all new or substantially improved structures, and whether or not the structure contains a basement; record on a current elevation certificate by a surveyor licensed in the State of Washington with section B completed by the local official/County Engineer

Comment [SC18]: Added at request of Ecology Floodplain Manager for clarity and compliance with WA Model Ordinance.

(b) For all new or substantially improved nonresidential structures where base flood elevation data is provided through the FIS, FIRM, or as required in section 3.20.340(4) the County Engineer shall:

(i) Obtain and record the actual elevation (in relation to mean sea level) to which the structure was floodproofed, if available (see section 3.20.310(5)); and

(ii) Maintain the floodproofing certifications required in section 3.20.310(3).

(c) Obtain engineering studies from development proponents showing the impact of the proposed development on the base flood elevation as required in sections 3.20.650 and 3.20.660. Engineering studies required under section 3.20.650 may be waived at the County Engineer's discretion. Examples include but are not limited to:

Comment [SC19]: Added to clarify current practice of waiving studies when no impact anticipated. BOCC recommended adding text in blue to allow additional flexibility to County Engineer in unanticipated circumstances where no impact is anticipated.

(i) Structures in flood fringe areas where structure is elevated on piers or pilling and no fill is placed in the area of special flood hazard;

(ii) Placement of in-stream works for the sole purpose of fish habitat enhancement or stream restoration where it is readily apparent that there will be no negative impact on adjacent properties and structures;

(iii) Development in flood fringe areas where there is ineffective flow and loss of flood storage is mitigated;

Comment [SC20]: Addition of blue highlighted text proposed based on workshop discussions to insure no cumulative impacts from storage loss.

(iv) Structures in shallow, low velocity flood fringe areas where areas below the base flood elevation are vented per section 3.20.610(2) and no fill is placed in the area of special flood hazard.

(v) Any development that does not have the potential to adversely impact the base flood elevation.

Comment [SC21]: BOCC recommended additional example to make sure option to waive engineering study if obvious there would be no impact and engineering analysis would be unreasonable burden.

(d) Maintain for public inspection all records pertaining to the provisions of this chapter.

(3) Certification.

(a) May require an applicant to provide a certification of the actual elevations required in section 3.20.340(2) showing project compliance with the floodplain development permit conditions and requirements. The certification shall be stamped and signed by a licensed land surveyor registered by the State of Washington. The County Engineer may waive the elevation certification for residential structures if the structure is not within or near a mapped area of special flood hazard and topographic or other data indicate that the structure is significantly above the base flood elevation. The County Engineer may also waive the elevation certification requirements on accessory structures if other on-site elevation certificates are available for comparison in conjunction with a site visit for verification. A certification of elevations during construction may also be required for development within or near an area of special flood hazard.

Comment [SC22]: Added to allow waiving of elevation certificate requirements when structure is obviously well outside the floodplain and not in a shaded area where FEMA would require elevation information.

(b) May require an applicant to provide a certification of "as built" drawings of projects pursuant to subsection 3.20.340(2)(c) showing project compliance with the floodplain development permit

Comment [SC23]: Added to allow elevation certification when under construction so building inspectors know elevations well before project is final and there are still cost effective correction options.

conditions and requirements. The certification shall be stamped and signed by a professional civil engineer registered by the State of Washington.

(4) Use of Other Base Flood Data.

When base flood elevation data has not been provided in accordance with section 3.20.210, the County Engineer shall:

- (a) Obtain, review, and reasonably utilize any base flood elevation and floodway data available from a federal, state, or other source approved by the County Engineer.
- (b) If no other base flood elevation data is available, Have the applicant provide the base flood elevation and supporting data in an engineering study produced by a professional civil engineer registered by the State of Washington.
- (c) Review all development proposals for compliance with sections 3.20.610 through 3.20.670.

Comment [SC24]: Added for clarity

(5) Alteration of Watercourses.

- (a) Notify impacted communities and the Washington State Department of Ecology prior to any alteration or relocation of a watercourse, and submit evidence of the notifications to the Federal Insurance Administration.
- (b) Require that maintenance be provided within the altered or relocated portion of said watercourse so that the flood-carrying capacity is not diminished. A written maintenance agreement for this purpose shall be required and the County Engineer may require the agreement to be recorded.

(6) Interpretation of Flood Insurance Rate Maps (FIRM).

- (a) The County Engineer shall make interpretations as to exact location of the boundaries of the areas of special flood hazards when necessary (for example, where there appears to be a conflict between a mapped boundary and actual field conditions).
- (b) Any person contesting the location of a boundary may submit an engineering study as provided in section 3.20.340(4)(b) to assist in the County Engineer's interpretation.

(7) Conditioning Development Approval.

- (a) The County Engineer shall review all development proposals to ensure they are consistent with the need to minimize flood damage. These development proposals include, but are not limited to:
 - (i) Subdivision approval
 - (ii) Short plat approval
 - (iii) Planned unit developments
 - (iv) Zone changes
 - (v) Permits required under chapter 90.58 RCW (Shorelines Management Act)
 - (vi) Conditional use permits
 - (vii) Variances from Spokane County Zoning Ordinance

(viii) Building permits as specified in section 3.20.350(1)

(ix) Exemptions to the above

(b) The County Engineer will furnish conditions for development approval when requested by the County Planning Director as outlined in section 3.20.360.

(c) The County Engineer shall ensure compliance with section 3.20.540 (1), (3), (4), ~~and (5) and (6).~~

Comment [SC25]: Added to correct oversight to reference new subsection (6).

(8) The County Engineer is authorized entry to any property for the purpose of administering and enforcing the provisions of this chapter. Physical entry must comply with the legal right of entry requirements, as established by state law and constitutional law.

3.20.350 Duties and Authority of the Division of Building and Planning, Building Director.

The Division of Building and Planning, Building Director shall:

- (1) Not issue a building permit until the County Engineer has approved a floodplain development permit when required pursuant to section 3.20.300.
- (2) Review all plans, construction documents and anchoring and floodproofing certifications provided per 3.20.310 (3) and building permits for structures with fully enclosed areas below the lowest floor that are subject to flooding to ensure that the requirements of section 3.20.510, 3.20.520, 3.20.610(2) and 3.20.620(4) are met.

3.20.360 Duties and Authority of the Division of Building and Planning, Planning Director.

The Division of Building and Planning, Planning Director shall request conditions of development approval for the proposals listed in section 3.20.340(7)(~~ab~~) from the County Engineer and the Division of Utilities Director.

Comment [SC26]: Upon further review, propose correction of subsection reference error from previous update.

3.20.370 Duties and Authority of the Division of Utilities Director.

The Division of Utilities Director shall review and condition any permits for development and development proposals listed in section 3.20.340(7)(a) which requires new or replacement sanitary sewer systems within the area of special flood hazard to ensure compliance with sections 3.20.530 and 3.20.540(2).

3.20.400 Appeals to the County Hearing Examiner—Authority.

The Hearing Examiner shall hear and decide appeals of administrative determinations made by the County Engineer under this chapter and appeals constituting requests for variance from the requirements of this chapter.

3.20.410 Appeals-Recordkeeping.

The County Engineer shall maintain the records of all appeal actions and report any variances to the Federal Insurance Administration upon request.

3.20.420 Appeal Procedures.

Only a person aggrieved by an administrative determination made by the County Engineer under this chapter of the Spokane County Code may appeal under this section to the Spokane County Hearing Examiner. The following appeal procedures shall apply.

- (1) All appeals shall be in writing and submitted with an appeal fee. The appeal and the fee shall be received within fourteen (14) days of the final approval, decision or determination being appealed. All appeals shall specify the grounds under which relief is sought.
- (2) The Hearing Examiner shall hold a public hearing on any timely appeal. Due deference shall be given to the specialized knowledge and expertise of the County Engineer. The County Engineer shall provide notice of public hearing at least fifteen (15) days prior to the date of the public hearing to the appellant, the applicant, the property owner and other persons who have requested notice.
- (3) The Hearing Examiner shall enter a written decision supported by findings of fact and conclusions of law. The Hearing Examiner's decision on the appeal, or any request for reconsideration shall be sent by certified mail to the appellant and the applicant, and by regular mail to other parties of record and anyone who requested notice of the decision. The Hearing Examiner's decision shall consider the recommendations of the County Engineer, all technical evaluations, the standards specified in other sections of this chapter, and all relevant factors, including, but not limited to:
 - (a) The danger of material being swept into other lands to the injury of others;
 - (b) The danger to life and property due to flooding and erosion damage;
 - (c) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
 - (d) The importance to the community of the services provided by the facility;
 - (e) The necessity of a waterfront location to the facility, where applicable;
 - (f) The availability of alternative locations not subject to flooding or erosion damage;
 - (g) The compatibility of the proposed use with existing and anticipated development in regard to floodplain management;
 - (h) The relationship of the proposed use with the Comprehensive Plan and floodplain management program for that area;
 - (i) The safety of access to the property in times of flood for ordinary and emergency vehicles;
 - (j) The expected heights, velocity, duration, rate of rise, and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site; and
 - (k) The cost of providing public services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, and streets and bridges.
- (4) The Hearing Examiner's decision on any appeal shall be final and conclusive, and given the effect of a final decision by the Board of County Commissioners, unless a party with standing files a land use petition in superior court within twenty-one (21) days from the issuance of the Hearing Examiner's decision pursuant to chapter 36.70C RCW.
- (5) The appellant may request reconsideration of the Hearing Examiner's decision by filing a written request with the Hearing Examiner's Office no more than 10 days from the date of the Hearing Examiner's decision. Filing a request for reconsideration modifies the time for filing an appeal as follows:

- (a) If the request is denied, the time from the date it is filed to the date the written denial is signed is not counted in the 21 days given to file an appeal.
 - (b) If the request is granted and upon reconsideration the operative portion of the decision is unchanged, the time from the date the request is filed to the date the written decision following the reconsideration is signed is not counted in the 21 days given to file an appeal.
 - (c) If the request is granted and upon reconsideration the operative portion of the decision is changed, the appeal period shall start anew from the date of the new written decision on the reconsideration is signed.
- (6) The Hearing Examiner's authority to reconsider a decision shall be limited to exceptional circumstances, such as correcting clerical errors, fraud, obvious ambiguity, or clear error of law or fact.

3.20.430 Variance.

The Hearing Examiner may approve or approve with modifications a request for a variance after considering the factors set forth in section 3.20.420(3)(a) through (k). The Hearing Examiner may attach conditions to the granting of variances as deemed necessary to further the purposes of this chapter.

3.20.440 Conditions for Variances.

- (1) Generally, variances may be issued for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing sections 3.20.420(3)(a) through (k) have been fully considered. As the lot size increases beyond the one-half acre, the technical justification required for issuing the variance increases.
- (2) Variances may be issued for the reconstruction, rehabilitation or restoration of structures listed on the National Register of Historic Places or the State Inventory of Historic Places, without regard to the procedures set forth in the remainder of this section.
- (3) Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.
- (4) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood and approach hazard, to afford relief.
- (5) Variances shall be issued upon:
 - (a) A showing of good and sufficient cause;
 - (b) A determination that failure to grant the variance would result in exceptional hardship to the applicant; and
 - (c) A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public as identified in section 3.20.420(3) or conflict with existing local laws or ordinances.
- (6) Variances as interpreted in the National Flood Insurance Program are based on the general zoning law principle that they pertain to a physical piece of property; they are not personal in nature and do not pertain to the structure, its inhabitants, economic or financial circumstances. They primarily address small lots in densely populated residential neighborhoods. As such, variances from the flood elevations should be quite rare.

Comment [SC271]: Again, propose correction of reference error from previous code update.

- (7) Whenever a variance is granted permitting a structure to be built with a lowest floor elevation below the base flood elevation, the applicant shall be given written notice that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.

3.20.500 Provisions for Flood Hazard Protection—General.

In all areas of special flood hazards the standards set out in sections 3.20.5120 through 3.20.550 are required.

Comment [SC28]: Correction of previous ordinance revision due to renumbering.

3.20.510 Anchoring.

- (1) All new development and substantial improvements shall be anchored to prevent floatation, collapse or lateral movement of the structure or works. Certification in accordance with 3.20.310 (3) must be provided to the County Engineer that this standard has been met if structure or works is not subject to a Building permit from the Division of Building and Planning.
- (2) All manufactured homes must likewise 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). Certification in accordance with 3.20.310 (3) must be provided to the Division of Building and Planning, Building Director, that this standard has been met.

Comment [SC29]: Insures that structure or works is anchored even when building codes do not apply, e.g. boat houses, small sheds, tanks, etc.

3.20.520 Construction Materials and Methods.

- (1) All new construction and substantial improvements shall be constructed with flood resistant materials and utility equipment substantially resistant to flood damage below the flood protection elevation.
- (2) All new construction and substantial improvements shall be constructed using methods and practices that substantially minimize flood damage.
- (3) 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 or shall be elevated above the flood protection elevation.
- (4) Construction materials and methods required in this section shall be certified in accordance with 3.20.310(3)

3.20.530 Utilities.

- (1) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system.
- (2) Water wells shall be located on high ground that is not in the floodway.
- (3) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharge from the systems into floodwaters.
- (4) On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

3.20.540 Subdivision and Other Proposed Developments.

- (1) All development proposals shall be consistent with the need to minimize flood damage.

- (2) All development proposals shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage.
- (3) All development proposals shall have adequate drainage provided to reduce exposure to flood damage.
- (4) Where base flood elevation data has not been provided or is not available from another authoritative source, it shall be generated by the applicant's engineer for subdivision proposals and other proposed developments.
- (5) The plat dedication of all subdivision proposals in all Areas of Special Flood Hazard shall contain the following wording:

“Development within this subdivision shall conform to the requirements of the National Flood Insurance Program and Chapter 3.20 of the Spokane County Code. Purchasers of property in this subdivision are warned of possible flooding or ponding—, potential special construction standards and the potential requirement to purchase Flood Insurance. This warning shall be carried in a title notice to be placed on each and every deed drawn to transfer ownership of any and all property tract or parcel within this plat all or a portion of which is located within in the Area of Special Flood Hazard.”

Comment [SC30]: Clarifies notice to future property owners regarding potential applicability of special construction requirements.

Comment [SC31]: Changed from warning on deed to title notice at recommendation of Planning Commission

(6) Areas of Special Flood Hazard boundaries and elevations shall be prominently shown on the face of all preliminary and final plats and short plats and other subdivision proposals.

Comment [SC32]: Insures that plat reviewers and future homeowners are fully aware of floodplain location.

3.20.550 Review of Building Permits.

Where elevation data is not available, either through the ~~Flood Insurance Study~~FIS or from another authoritative source, applications for building permits shall be reviewed to assure that proposed construction will be reasonably safe from flooding. The test of reasonableness is the County Engineer's judgment and includes but is not limited to use of historical data, high water marks, and photographs of past flooding where available. The County Engineer may require the applicant to produce needed data, which may include an engineering study. The County Engineer may require the applicant to locate the lowest floor at least two (2) feet above the highest adjacent natural ground surface. Failure to elevate at least two feet above grade in these zones may result in higher insurance rates. If a structure is to be elevated on fill, applicant must submit information about the volume of fill proposed to be used and meet the provisions of 3.20.650 and 3.20.660.

3.20.600 Specific Standards.

In all areas of special flood hazards where base flood elevation data has been provided as set forth in sections 3.20.210, 3.20.340(4) or 3.20.540(4), the provisions set out in sections 3.20.610 through 3.20.630 are required.

3.20.610 Residential Construction.

- (1) New construction and substantial improvement of any residential structure within areas of special flood hazard shall have the lowest floor, including basement, elevated a minimum of one (1) foot above the base flood elevation. New construction and substantial improvement of any residential structure outside the floodplain on property a portion of which is in a special flood hazard area shall have the lowest opening of the structure elevated a minimum of one (1) foot above the 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 floodwaters. Designs for meeting this requirement must be certified by a professional civil engineer or architect registered as such by the State of Washington in accordance with section 3.20.310(3) and must meet or exceed the minimum criteria below. Interior grade of these vented enclosed areas shall be at or above the lowest adjacent exterior grade.

- (a) A minimum of two openings on different sides of each enclosed area 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. Minimum vent size is 3 inches in diameter.
- (b) The bottom of all openings shall be no higher than one foot above grade.
- (c) Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

(3) When feasible, new construction or substantial improvement of any residential structure shall have a primary or secondary access route off of the public road elevated to or above the base flood elevation to allow ingress and egress during 100-year flood events. If not feasible, written agreement of the local fire district to provide emergency services shall be provided prior to approval of the floodplain development permit.

~~(4) Residential accessory structures, attached or separate, which are accessory to a residential use (vehicle, access or storage uses) may be waived from lowest floor elevation requirement if wet floodproofed per FEMA Technical Bulletin 7 including meeting the requirements of sections 3.20.510, 3.20.520 and venting of enclosed areas below the flood protection elevation per 3.20.610(2).~~

~~(5) Non-substantial repairs or improvements to existing (pre-FIRM) residential structures, if not elevated, shall be wet floodproofed as described in 3.20.610(4).~~

Comment [SC33]: 4 & 5 added to allow wet floodproofing which we have done frequently in the past but the ordinance has not specifically allowed it.

Comment [SC34]: Proposed additional requirement to wet floodproof non-substantial impr. and repairs now deleted at recommendation of BOCC as too burdensome.

3.20.620 Nonresidential Construction.

New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor, including basement, elevated a minimum of one foot above the base flood elevation, or, together with attendant utility and sanitary facilities, shall:

- (1) Be dry floodproofed so that below one foot above the base flood level the structure is water tight with walls substantially impermeable to the passage of water. If the structure is to be floodproofed, suitable plans and specifications must be prepared and signed by a registered architect or engineer;
- (2) Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy;
- (3) Be certified by a professional civil engineer or architect, registered as such by the State of Washington, that the design and methods of construction are in accordance with accepted standards of practice for meeting provisions of this section based on their development and/or review of the structural design, specifications and plans. The registered engineer or architect shall certify that the flood proofing measures will effectively prevent floodwater from entering the structure. Such certifications shall be provided to the County Engineer and reviewed by the Division of Building and Planning, Building Director;
- (4) Nonresidential structures that are elevated, not floodproofed, must meet the same standards for space below the lowest floor as described in section 3.20. 610(2);
- (5) 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 floor below that level).

(6) Agricultural structures (e.g. equipment buildings, storage buildings, barns, etc.) may be waived from elevation and dry floodproofing as described in this section, if wet floodproofed per FEMA Technical Bulletin 7 including meeting the requirements of sections 3.20.510, 3.20.520 and venting of enclosed areas below the flood protection elevation per 3.20.610(2).

Comment [SC35]: Added to allow wet floodproofing which we have done frequently in the past but the ordinance has really not allowed it.

(7) Non-substantial repairs or improvements to existing (pre-FIRM) nonresidential structures, if not elevated, shall be wet floodproofed as described in 3.20.610(4).

Comment [SC36]: Proposed additional requirement to wet floodproof non-substantial impr. and repairs now deleted at recommendation of BOCC as too burdensome.

3.20.630 Manufactured Homes.

All manufactured homes to be placed or substantially improved within numbered A, AH, and AE zones all areas of special flood hazard shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is a minimum of one (1) foot above the base flood elevation and be securely anchored to an adequately anchored foundation system in accordance with the provisions of subsection 3.20.510(2).

Comment [SC37]: Here and below, wording change to clarify, more in line with WA model ord. wording.

3.20.640 Recreational Vehicles.

Recreational vehicles placed on sites within areas of special flood hazard either must:

- (1) Be on site for fewer than 180 consecutive days, or
- (2) Be fully licensed and ready for highway use, be 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
- (3) Within all areas of special flood hazard numbered A, AH, and A zones, recreational vehicles shall meet the elevation and anchoring requirements for manufactured homes in 3.20.630 above. Within AO zones recreational vehicles shall meet the requirements of 3.20.680(1) and 3.20.680(3) and the anchoring requirements for manufactured homes in 3.20.630 above.

3.20.650 Encroachments.

The cumulative effect of any proposed development in special flood hazard areas, when combined with all other existing and anticipated development, shall meet the following provisions:

- (1) In any A ~~and B~~ (or shaded X) zones, ~~where base flood elevations have not been provided~~, the development may not increase the water surface elevation of the base flood by more than one (1) foot at any point.
- (2) In any numbered A or AE, AO or AH zones, where base flood elevations have been provided, but floodways have not been established, the development may not increase the surface water elevation of the base flood by more than one-tenth (1/10th) of a foot at any point with the following exceptions:

(a) For a proposed subdivision, the base flood elevation may be increased up to one-tenth (1/10th) of a foot per building lot, not to exceed a total of one (1) foot for the entire development provided no structures are impacted.

(b) The base flood elevation may be increased up to one (1) foot at the County Engineer's discretion in cases where cumulative effects have been calculated (including the cumulative effect of floodwater storage losses and flood flow velocity increases) and are demonstrated to be minimal or mitigated and no structures are impacted.

Comment [SC38]: Proposed changes to (2) by BOCC to allow some flexibility for rise up to FEMA's allowance of 1 ft. when cumulative effects have been accounted for and impact is limited.

(2)

~~(3) (3) In any numbered A or AE zones, where base flood elevations have been provided and floodways have been established, the development may not increase the surface water elevation of the base flood at any point.~~

(4) All adjacent or other property owners impacted by the development within the floodplain must give their written, notarized approval for increased base flood elevations upon their property exceeding one-tenth (1/10th) of a foot.

3.20.660 Floodways.

Floodways are designated areas located within areas of special flood hazard established in Section 3.20.210. Floodways are considered extremely hazardous areas due to the velocity of floodwaters, which can carry debris, potential projectiles, and erosion potential, and therefore the following provisions apply:

(1) Construction and reconstruction of residential structures is prohibited, except for:

~~(b) (a) Repairs, reconstruction, or improvements to a structure which do not increase the ground floor ___ area; and~~

~~(b) (b) Repairs, reconstruction, or improvements to a structure, the cost of which does not exceed fifty percent of the market value of the structure either (a) before the repair, reconstruction or improvement is started; or (b) if the structure has been damaged, and is being restored, before the damage occurred. Work done on structures to comply with existing health, sanitary, or safety codes which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions or to structures identified as historic places shall not be included in the fifty percent determination. Structure that do not constitute a substantial improvement as defined in section 3.20.100.~~

(2) Encroachments, including fill, new non-residential construction, substantial improvements, and other development and works are prohibited unless certification by a professional civil engineer registered as such by the State of Washington is provided demonstrating through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the subject encroachments shall not materially cause erosion, obstruct the natural flow of water, reduce the carrying capacity of the floodway and shall not result in any increase in flood levels during the occurrence of the base flood discharge.

(3) If a proposed development or work is allowed under subsections (1) or (2) of this section, then all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of sections 3.20.500 through 3.20.630.

3.20.670 Water-Dependent Works.

For water-dependent utilities and other installations which by their very nature must be in the flood fringe and/or floodway (such uses as, but not limited to, roads, bridges, marinas, dams for domestic/industrial water supply, flood control and/or hydroelectric production; water diversion structures and facilities for surface water supply, irrigation, and/or fisheries enhancement; flood water and drainage pumping plants and facilities; hydroelectric generating facilities and appurtenant structures; structural and nonstructural flood damage reduction facilities, and stream bank stabilization structures and practices), these provisions apply:

(1) The applicant shall supply convincing evidence that a flood fringe and/or floodway location is necessary in view of the objectives of the proposal and provided further that the proposal is consistent with other provisions of this title and relevant local, state and federal regulations.

Comment [SC391]: Recommended for deletion by BOCC. Eliminates zero rise for flood fringe areas where floodways have been delineated. Current clause is unnecessarily restrictive for non floodway areas. Reason this was done in the past (in 80's) was that BFE's matched floodway elevations. Floodway tables are currently correct so 1 ft. allowance does not increase above tabulated floodway elevations.

Comment [SC40]: Proposed addition by BOCC. Limits damage to neighboring properties while allowing some flexibility to modify a floodplain with new development.

Comment [SC41]: Refers to current substantial development definition instead of repeating it here.

Comment [SC42]: Proposed clarification by BOCC that this does not include ground water supply facilities.

- (2) In all instances of locating ~~utilities and other installations water-dependent works in floodway locations special flood hazard areas where public health, safety and property may be affected the County Engineer may project~~ require the project design ~~must~~ incorporate floodproofing certified by a professional civil engineer registered as such by the State of Washington to be capable of withstanding 100-year flood flows and velocities.
- (3) For any works that impound water, the applicant shall provide documentation of easements, flowage rights or ownership of the impoundment area and certification by a professional civil engineer registered as such by the State of Washington that the works will cause no increase in the 100-year flood elevation outside the impoundment areas and that the works and associated impoundment area will not impair the ability of natural drainageways to drain floodwaters adequately during a flooding event.

Comment [SC43]: Changed for clarity as water dependent works are defined above.

Comment [SC44]: BOCC proposed revision so that Co. Engineer may request engineering design for stability for works in cases where potential for impact to public safety/property. Change from PC recommendation for all works in FP not just floodway to have engineering study

3.20.680 Standards for Shallow Flooding Areas (AO Zones).

Shallow flooding areas appear on FIRMS as AO zones with depth designations. The base flood depths in these zones range from 1 to 3 feet where a clearly defined channel does not exist, or where the path of flooding is unpredictable and where velocity flow may be evident. Such flooding is usually characterized as sheet flow. In these areas, the following provisions apply:

- (1) New construction and substantial improvements of residential structures within AO zones shall have the lowest floor (including basement) elevated above the highest adjacent grade to the structure by one foot or more above the depth number specified on the FIRM (at least three feet if no depth number is specified) and recorded on a current elevation certificate with ~~Section B~~ section B completed by ~~local official~~ County Engineer.
- (2) New construction and substantial improvements of non-residential structures within AO zones shall either:
 - (a) Have the lowest floor (including basement) elevated above the highest adjacent grade to the structure by one foot or more above the depth number specified in the FIRM (at least three feet if no depth number is specified) and recorded on a current elevation certificate with ~~Section B~~ section B completed by ~~local official~~ County Engineer; or
 - (b) Together with the attendant utility and sanitary facilities, be completely flood proofed to or above that level so that any space below that level is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. If this method is used, compliance shall be certified by a registered professional civil engineer or architect as in section 3.20.620(3).
- (3) Adequate drainage paths must be provided to guide floodwaters around and away from proposed structures.
- (4) See Section 3.20.640 for requirements for ~~r~~Recreational vehicles placed on sites within AO zones.

3.20.690 Special Requirements—Flood Storage Areas.

For the flood storage areas designated on the FIRMS, in addition to the other requirements of this chapter that may apply, no development shall be undertaken unless an engineering study is prepared by a professional civil engineer, registered as such by the state of Washington, that shows no impact to the ability of the impacted flood storage area to infiltrate, store and/or convey floodwaters as described in the ~~Flood Insurance Study FIS~~ and as shown on ~~Flood Insurance Rate Map~~ FIRMs.

3.20.710 Fee Schedule.

(1) The County Engineer is authorized to collect a fee for the following floodplain development permits, ~~violations, and appeals and other associated processes~~ in accordance with the current following Engineering and Roads Fee Schedule (Attachment A of Res. 10-0107, as updated):

Comment [SC45]: Revises to follow current Engineering Div. fee schedule.

(a) Residential Floodplain Development Permit ~~within a flood zone with known base flood elevation~~ \$35

(b) Commercial Floodplain Development Permit ~~within an Unnumbered A or B Zone~~ \$57

(c) Residential Floodplain Development Permit – Limited Office Review Only

Comment [SC46]: Addition by BOCC to allow graduated fee schedule. This would be used where only office review of maps and available contours to determine that proposed development is outside of the floodplain.

~~(e)(d)~~ Administrative Appeal/ Variance \$290

(e) Processing SEPA as Lead Agency

(f) Correction of Violation

~~(2)~~ The County Engineer is also authorized to require the posting of a bond to insure the provisions of section 3.20.340(3) are met. For residential structures, the bond shall be in the amount specified as follows in the current Engineering and Roads Fee Schedule (Attachment A of Res. 10-0107, as updated).

~~(a)~~ For residential structure \$750

~~(3)~~ For a non-residential structure, works, grading or other development, ~~_____~~ bond amount to be B based on the project scope.

(2)

(3) The County Engineer is also authorized to collect fees for engineering review time when engineering studies are required under sections 3.20.340(4), 3.20.540, 3.20.650, 3.20.660, and 3.20.670. Fees will be based on actual staff time.

Comment [SC47]: Allow use of agreement to pay fees for engineering study review.

3.20.720 Violation—Assessment of Penalty.

Any person, firm, or corporation violates section 3.20.300, or violates a Stop Work Order issued under section 3.20.730, or violates any condition of approval of a floodplain development permit as imposed under the authority of this chapter, shall be guilty of a misdemeanor and shall be punished upon conviction by imprisonment in the county jail for a maximum term fixed by the court of not more than ninety days or by a fine in an amount fixed by the court of not more than one thousand dollars or by both such imprisonment and fine.

3.20.730 Stop Work Orders.

Whenever any work is being done contrary to the provisions of this chapter, the County Engineer may order the work stopped by notice in writing directed to the owner of record and/or taxpayer and/or to those persons who are engaged in causing or contributing to such violation. Such persons shall forthwith stop or shall cause to be stopped any such work until authorized by the County Engineer to proceed.

Stop Work Orders shall contain:

(1) The name and address of the owner of record and/or taxpayer or other person to whom the Stop Work Order is directed;

- (2) The street address, when available, or a legal description sufficient for identification of the building, structure, lot or land upon which the violation is occurring;
- (3) A statement that the County Engineer has found the building, structure, lot or land is being used or maintained in violation of this chapter or any condition of approval of a floodplain development permit as imposed under the authority of this chapter, and a concise description of the nature of such violation(s) including applicable sections of this ordinance;
- (4) A statement of the action required to be taken, as determined by the County Engineer;
- (5) A statement of the penalty that may be assessed due to violation as outlined in section 3.20.720.

3.20.740 Severability.

If any provision of this chapter or the application to any person or circumstances is held invalid, such invalidity shall not affect other provisions or applications of the chapter which can be given effect without the invalid provision or application, and to this end the provisions of the chapter are declared to be severable.