

BEFORE THE BOARD OF COUNTY COMMISSIONERS

FOR COLUMBIA COUNTY, OREGON

In the Matter of Amending the Columbia County	)	
Zoning Ordinance, Section 1100, Flood Hazard	)	ORDINANCE NO. 2010-6
Overlay Zone, to comply with the National Flood	)	
Insurance Program Regulations	)	

The Board of County Commissioners for Columbia County, Oregon, ordains as follows:

SECTION 1.            TITLE.

This Ordinance shall be known as Ordinance No. 2010-6.

SECTION 2.            AUTHORITY.

This Ordinance is adopted pursuant to ORS 203.035, ORS 203.045 and ORS 197.175.

SECTION 3.            PURPOSE.

The purpose of this Ordinance is to comply with the National Flood Insurance Program (NFIP) regulations by amending the Columbia County Zoning Ordinance, Section 1100, Flood Hazard Overlay, to revise minimum flood plain development standards and incorporate the Federal Emergency Management Agency's (FEMA's) Flood Insurance Study for Columbia County and the revised Flood Insurance Rate Maps (FIRMs), effective November 26, 2010. The adoption of these amendments by November 26, 2010, is necessary for participation in the NFIP. Failure to adopt the amendments will result in suspension from the NFIP and thus, exclude Columbia County citizens from the low-cost federal flood insurance available through the NFIP.

SECTION 4.            FINDINGS.

Based on the record as listed in Exhibit A, attached hereto and incorporated herein by this reference, the Board of County Commissioners adopts Findings of Fact and Conclusions of Law contained in the October 29, 2010 Revised Staff Report, attached hereto as Exhibit B and incorporated herein by this reference.

SECTION 5.            AMENDMENT AND AUTHORIZATION.

The Columbia County Zoning Ordinance is amended as shown in Exhibit C attached hereto and incorporated herein by this reference.

SECTION 6. SEVERABILITY.

If for any reason any court of competent jurisdiction holds any portion of this Ordinance, including its attachments or any portion therein, to be invalid, and such holding is upheld on any appeal, such portion shall be deemed a separate, distinct and independent portion. Any such holding shall not affect the validity of the remaining portions.

SECTION 7. SCRIVENER'S ERRORS

Scrivener's errors in any portion of this ordinance may be corrected by order of the Board of County Commissioners.

SECTION 8. EMERGENCY CLAUSE.

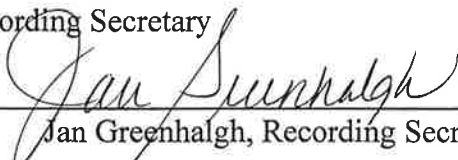
This Ordinance, being immediately necessary for the health, safety and welfare of the citizens of Columbia County, an emergency is declared to exist, and it shall become effective on November 26, 2010.

DATED this 3<sup>rd</sup> day of November, 2010.

Approved as to Form

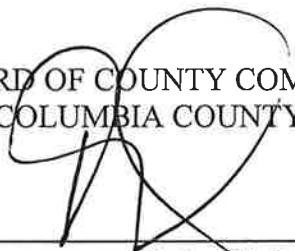
By:   
Office of County Counsel

Recording Secretary

By:   
Jan Greenhalgh, Recording Secretary

First Reading: 11-3-10  
Second Reading: 11-3-10  
Effective Date: 11-26-10

BOARD OF COUNTY COMMISSIONERS  
FOR COLUMBIA COUNTY, OREGON

By:   
Anthony Hyde, Chair

By:   
Earl Fisher, Commissioner

By:   
Rita Bernhard, Commissioner

Legal Counsel's File -EXHIBIT 1

- (1) Notice of Public Hearing (Publication)
- (2) Notice of Public Hearing (Property Owner Measure 56 Notice)
- (3) Affidavit of Mailing (Need- there is a list but not M56 list and no affidavit of mailing)
- (4) Affidavit of Publication
- (5) Board Communication Dated August 25, 2010, with the following attachments:
  - (1) Staff Report TA 10-04 to the Board of County Commissioners
  - (2) Flood Hazard Overlay Text with Proposed Amendments
  - (3) Letters from Scappoose Bay Watershed Council
  - (4) Email comments from Lower Columbia Watershed Council
- (6) Staff Report TA 10-04 to the Planning Commission with the following attachments:
  - (1) Letter from Scappoose Bay Watershed Council
- (7) Measure 56 Notice (Need and affidavit of mailing)
- (8) Planning Commission Recommendation to the Board of Commissioners for TA 10-04
- (9) Board Communication dated July 27, 2010 with the following attachments:
  - (1) Letter dated May 26, 2010 from FEMA (final flood determination starting adoption timeline;
  - (2) Staff Report to the Planning Commission dated July 23, 2010;
  - (3) Letter dated July 20, 2010 from the Scappoose Bay Watershed Council
  - (4) Proposed Zoning Ordinance Text Amendments
- (10) Minutes from June 23, 2010, regular meeting
- (11) FIS and FIRM Maps
- (12) Suggested Language for Section 1110 from the Columbia Soil and Water Conservation District;
- (13) Letter to Tony Hyde from FEMA dated August 13, 2010;
- (14) Referral and Acknowledgment Upper Nehalem CPAC
- (15) Referral and Acknowledgment Scappoose Bay Watershed Council;
- (16) Referral and Acknowledgment Watermaster;
- (17) Certificate of Mailing dated July 2, 2010;
- (18) DLCD Notice of Proposed Amendment dated June 16, 2010;
- (19) Exhibit 2 – Letter from Community Action Team, dated September 1, 2010
- (20) Exhibit 3 – Suggested text amendment language from Columbia River Soil and Water Conservation District
- (21) Letter from Etta Epling, dated August 30, 2010
- (22) Board Communication dated September 7, 2010 with proposed revisions attached
- (23) Revised Staff Report, dated October 29, 2010, with the following attachments:
  - (1) Proposed text amendments
  - (2) Letter from Scappoose Bay Watershed Council, dated July 20, 2010
  - (3) E-mail from Margaret Magruder, Lower Columbia Watershed Council, dated August 17, 2010
  - (4) E-mail from Steve Lucker, DLCD, dated June 7, 2010
  - (5) E-mail from Christine Shirley, DLCD, dated September 21, 2010

# COLUMBIA COUNTY BOARD OF COMMISSIONERS

## “Floodplain Ordinance”

REVISED Staff Report

Text Amendment - - Legislative Process

REVISED OCTOBER 29, 2010

FILE NUMBER: Planning File TA 10-04

APPLICANT: Columbia County  
Land Development Services  
230 Strand  
St. Helens, Oregon 97051

REQUEST: Amend the Columbia County Zoning Ordinance, Section 1100 Flood Hazard Overlay, to 1) Adopt Revised Flood Insurance Study and FIRM Maps effective November 26, 2010;  
2) Adopt Revisions and Add Definitions to Flood Hazard Overlay Zone to meet the standards of the National Flood Insurance Program (NIFP) Regulations.

REPORT DATE: August 25, 2010, October 29, 2010

**BACKGROUND:** Periodically FEMA revise and update the Federal Insurance Rate Maps (FIRM) to incorporate new data and revise old elevation data pertaining to flood levels in most drainage basins and those areas subject to flooding. The FIRM panels identify Special Flood Hazard Areas subject to inundation by the base flood, 1-percent-annual-chance of flood (100 yr). FEMA recently completed a map modernization & re-evaluation of flood hazards in Columbia County, and on September 30, 2009 provided the County with Preliminary copies of the Flood Insurance Study report and FIRM panels.

The fifty computer-generated FIRM panels, provided by FEMA, contain maps of flood hazard areas and elevation data on a countywide format, the entire county, including all jurisdictions within Columbia County. Each participating community (City) and the County must adopt the revised FIRM maps, designating Base Flood Elevations (BFE), and adopt or amend flood management regulations that meet the standards of the NIFP regulations. Participating communities that fail to enact the necessary floodplain regulations will be subject to suspension from participating in the National Flood Insurance Program (NIFP). To this end, the proposed amendments in TA 10-04 adopts the new Flood Insurance Study, the revised FIRM base flood elevations and amendments to our regulations prior to November 26, 2010. November 26, 2010 is the date the new FIRM will become effective, as per FEMA's notification, publication and adoption schedule.

In some areas, as mapped in the new 2010 FIRM, the flood hazard areas have expanded from previous base flood areas identified in the 1988 FIRM, especially in the Nehalem River basin. If owners of these properties want to contest whether the existing structure or parcel of land would be inundated by the 1% annual chance of flood, they must submit to FEMA scientific or technical information prepared by an engineer or surveyor, provided with elevation data as prescribed in a Letter of Map Amendment (LOMA), 44 CFR Chapter 1, Part 70. Columbia County can assist aggrieved owners by providing a copy of the applicable Code of Federal Regulations; but, proof that a particular property, mapped in a

flood hazard area, is not subject to flood hazard is incumbent on the owner.

In order to assure that Columbia County flood plain management regulations meet the minimum requirements for the federal NFIP program, Columbia County asked State DLCD Floodplain and Natural Disasters Division to review our regulations for compliance. On June 7, 2010 Stephen Lucker, DLCD Floodplain/Natural Hazards Mapping Specialist, provided Land Development Services with an updated review of county regulations, that added in bold red the necessary changes and bold blue for optional (but strongly recommended) additions/changes. The identified June 7 necessary changes were included in the Draft Amendments & Staff Reports for the Planning Commission (August 2, 2010) and the Board of Commissioners (September 1, 2010). After the September 1, 2010 Board hearing Land Development Services sent the proposed amendments to Section 1100 Flood Hazard Overlay to Christine Shirley, State Coordinator NFIP Program, for final review and comment, to make sure the proposed amendments were all that were needed for the county ordinance to be in compliance with NIFP. On September 21, 2010 Christine Shirley submitted several additional mandatory corrections and amendments. The more significant corrections and additions are reviewed on page 10 under Comments. The October 29, 2010 (present) draft amendments to Section 1100 Flood Hazard Overlay includes all (both sets of mandatory revisions) as required by the DLCD Oregon State NIFP Coordinator.

**APPLICABLE CRITERIA:**

<u>Columbia County Zoning Ordinance</u>	<u>Page</u>
Section 1606 - Legislative Hearing	2
Section 1607 - Consistency with the Comprehensive Plan	2
Section 1611 - Notice of Legislative Hearing	3
<u>Oregon State Statute</u>	
ORS 197.610 - DLCD Review	3
ORS 215.503 - Measure 56 Notice (all affected property owners)	4
<u>Code of Federal Regulations (CFR)</u>	
CFR Title 44, Chapter 1, Part 59, Section 59.24	7
<u>County Comprehensive Plan</u>	
Part I - Administrative Procedures	7
Part XIX - Natural Disasters and Hazards - Floodplain	8

**FINDINGS:**

This request is being processed under Sections 1606 (Legislative Hearing) and 1611 (Notice of Legislative Hearing) of the County Zoning Ordinance. The pertinent sections of the ordinance are reviewed as follows:

"1606 Legislative Hearing: Requests to amend the text of the Zoning Ordinance...are legislative hearings. Legislative hearings shall be conducted in accordance with the following procedures:

- .1 A legislative amendment to the Zoning Ordinance Text or Map may be initiated at the

request of the Board of Commissioners, a majority of the Commission, or the Director, or any citizen of the County may petition the Commission for such a change."

**Finding 1:** The Board of County Commissioners initiated this Flood Plain Text amendment at their Board/Staff meeting on June 23, 2010.

Continuing with Section 1606 of the Zoning Ordinance:

- "2 Notice of a Legislative Hearing shall be published at least twice, 1 week apart in newspapers of general circulation in Columbia County. The last of these notices shall be published no less than 10 calendar days prior to the Legislative Hearing. The mailing of notice to individual property owners is not required but shall be done if ordered by the Board of Commissioners."

**Finding 2:** A hearing notice was published in the Clatskanie Chief, Daily News, St. Helens Chronicle and Spotlight newspapers on July 21, 2010 and July 28, 2010, which are more than 10 days prior to the Planning Commission hearing date of August 2, 2010. Notice to and request for Information & Referral was mailed to all CPAC and Water Shed Council members and all affected State, Federal and local agencies on July 2, 2010. Pursuant to ORS 215.503, Measure 56 Notice of the proposed zone change, with required statutory language, was mailed to 2,300 property owners that had an identified floodplain on their property on July 2, 2010. The Board of Commissioners had Notification of the hearing scheduled before it on September 1, 2010, published in The Chronicle, the County's newspaper of record, on August 11 and August 18, 2010. This criteria is satisfied.

Continuing with the Zoning Ordinance

"1607 Consistency with the Comprehensive Plan: All amendments to the Zoning Ordinance Text and Map shall be consistent with the Comprehensive Plan Text and Maps.

- .1 The Commission shall hold a hearing to consider the proposed amendments and shall make a recommendation to the Board of Commissioners with regard to the proposed amendments. The Board of Commissioners shall hold at least one hearing to consider the proposed amendments. Both the Commission and the Board of Commissioners hearings will require notice in the manner outlined in Section 1611."

**Finding 3:** The Planning Commission held a public hearing on August 2, 2010 and the Board has scheduled September 1, 2010 for a public hearing to consider the proposed amendments. The Planning Commission does not make a final decision on this matter, but rather makes a recommendation to the Board of Commissioners for the final decision. See Finding 7 and 8 for discussion of consistency with the Comprehensive Plan, Administrative Procedures and Natural Disasters - Floodplain. This Criteria is satisfied by the Board holding a hearing.

Continuing with the Zoning Ordinance:

"1611 Notice of Legislative Hearing: The notice of a legislative hearing shall contain the following items:

- .1 Date, time and place of the hearing;
- .2 A description of the area to be rezoned or the changes to the text;
- .3 Copies of the statement for the proposed changes are available in the Planning Department. These proposed changes may be amended at the public hearing;
- .4 Interested parties may appear and be heard;
- .5 Hearings will be held in accordance with the provisions of the Zoning Ordinance."

**Finding 4:** All of the above information was included in the Notice of Public Hearing published twice in the *Clatskanie Chief, Chronicle, Daily News* and *Spotlight* newspapers. Additional Notice was published for the Board of Commissioners hearing containing the above language. See Finding 2 for related publication dates and information. This criteria is satisfied.

The following Oregon Revised Statutes are applicable to this post acknowledgment ordinance amendment:

ORS 197.610 A proposal to amend a local government acknowledged comprehensive plan or land use regulation or to adopt a new regulation must be forwarded to DLCD at least 45 days before the first evidentiary hearing on adoption and contain the text and any supplemental information that the local government believes is necessary to inform DLCD as to the effect of the proposal as well as the date set for the first evidentiary hearing. When a local government determines that the goals do not apply to a particular proposed amendment or a new regulation, notice under subsection (1) of this section is not required. In addition, a local government may submit an amendment or new regulation with less 45 days' notice if the local government determines that there are emergency circumstances requiring expedited review. In both cases:

(a) The amendment or new regulation shall be submitted after adoption as provided in ORS 197.615 (1) and (2); and

(b) Notwithstanding the requirements of ORS 197.830 (2), the director or any other person may appeal the decision to the board under ORS 197.830 and 197.845.

**Finding 5:** Land Development Services mailed a 45 day notice to DLCD as per ORS 197.610(1) on July 16, 2010 for PA 10-04. Staff therefore finds that the 45 day notice prior to the initial hearing is met. The County will mail a Notice of Adoption to DLCD when the Board approves the amendments. This criteria is satisfied.

Continuing with Oregon State Statute: ORS 215.503

215.503 Legislative act by ordinance; mailed notice to individual property owners required by county for land use actions. (1) As used in this section, "owner" means the owner of the title to real property or the contract purchaser of real property, of record as shown on the last available complete tax assessment roll.

(2) All legislative acts relating to comprehensive plans, land use planning or zoning adopted

by the governing body of a county shall be by ordinance.

- (3) Except as provided in subsection (6) of this section and in addition to the notice required by ORS 215.060, at least 20 days but not more than 40 days before the date of the first hearing on an ordinance that proposes to amend an existing comprehensive plan or any element thereof or to adopt a new comprehensive plan, the governing body of a county shall cause a written individual notice of land use change to be mailed to each owner whose property would have to be rezoned in order to comply with the amended or new comprehensive plan if the ordinance becomes effective.
- (4) In addition to the notice required by ORS 215.223 (1), at least 20 days but not more than 40 days before the date of the first hearing on an ordinance that proposes to rezone property, the governing body of a county shall cause a written individual notice of land use change to be mailed to the owner of each lot or parcel of property that the ordinance proposes to rezone.
- (5) An additional individual notice of land use change required by subsection (3) or (4) of this section shall be approved by the governing body of the county and shall describe in detail how the proposed ordinance would affect the use of the property. The notice shall:
  - (a) Contain substantially the following language in boldfaced type across the top of the face page extending from the left margin to the right margin:

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**This is to notify you that (governing body of the county) has proposed a land use regulation that may affect the permissible uses of your property and other properties.**

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- (b) Contain substantially the following language in the body of the notice:
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On (date of public hearing), (governing body) will hold a public hearing regarding the adoption of Ordinance Number \_\_\_\_\_. The (governing body) has determined that adoption of this ordinance may affect the permissible uses of your property, and other properties in the affected zone, and may change the value of your property.

Ordinance Number \_\_\_\_\_ is available for inspection at the \_\_\_\_\_ County Courthouse located at \_\_\_\_\_. A copy of Ordinance Number \_\_\_\_\_ also is available for purchase at a cost of \_\_\_\_\_.

For additional information concerning Ordinance Number \_\_\_\_\_, you may call the (governing body) Planning Department at \_\_\_\_-\_\_\_\_\_.



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(6) At least 30 days prior to the adoption or amendment of a comprehensive plan or land use regulation by the governing body of a county pursuant to a requirement of periodic review of the comprehensive plan under ORS 197.628, 197.633 and 197.636, the governing body of the county shall cause a written individual notice of the land use change to be mailed to the owner of each lot or parcel that will be rezoned as a result of the adoption or enactment. The notice shall describe in detail how the ordinance or plan amendment may affect the use of the property. The notice also shall:

(a) Contain substantially the following language in boldfaced type across the top of the face page extending from the left margin to the right margin:

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**This is to notify you that (governing body of the county) has proposed a land use that may affect the permissible uses of your property and other properties.**

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(b) Contain substantially the following language in the body of the notice:

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As a result of an order of the Land Conservation and Development Commission, (governing body) has proposed Ordinance Number \_\_\_\_\_. (Governing Body) has determined that the adoption of this ordinance may affect the permissible uses of your property, and other properties in the affected zone, and may change the value of your property.

Ordinance Number \_\_\_\_\_ will become effective on (date).

Ordinance Number \_\_\_\_\_ is available for inspection at the \_\_\_\_\_ County Courthouse located at \_\_\_\_\_. A copy of Ordinance Number \_\_\_\_\_ also is available for purchase at a cost of \_\_\_\_\_.

For additional information concerning Ordinance Number \_\_\_\_\_, you may call the (governing body) Planning Department at \_\_\_\_\_ - \_\_\_\_\_.

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(7) Notice provided under this section may be included with the tax statement required under ORS 311.250.

- (8) Notwithstanding subsection (7) of this section, the governing body of a county may provide notice of a hearing at any time provided notice is mailed by first class mail or bulk mail to all persons for whom notice is required under subsections (3) and (4) of this section.
- (9) For purposes of this section, property is rezoned when the governing body of the county:
  - (a) Changes the base zoning classification of the property; or
  - (b) Adopts or amends an ordinance in a manner that limits or prohibits land uses previously allowed in the affected zone.
- (10) The provisions of this section do not apply to legislative acts of the governing body of the county resulting from action of the Legislative Assembly or the Land Conservation and Development Commission for which notice is provided under ORS 197.047, or resulting from an order of a court of competent jurisdiction.
- (11) The governing body of the county is not required to provide more than one notice under this section to a person who owns more than one lot or parcel affected by a change to the local comprehensive plan or land use regulation.
- (12) The Department of Land Conservation and Development shall reimburse the governing body of a county for all usual and reasonable costs incurred to provide notice required under subsection (6) of this section. [1977 c.664 §37; 1999 c.1 §1; 1999 c.348 §10; 2003 c.668 §2]

**Finding 6:** Land Development Services mailed Measure 56 notice (green card) to every property owner that had an identified flood hazard area on their property as described in Finding 2 above. The Notice contained substantially the text as required in this Statute. The Notice was mailed on July 2, 2010 which is at least 20 days but not more than 40 days before the date of the first hearing. A copy of the Notice is in the record. This criteria is satisfied.

Review of the Code of Federal Regulations (CFR) for FEMA

CFR Title 44 Emergency Management and Assistance  
Chapter 1 – Federal Emergency Management Agency (FEMA)  
Part 59 CFR 59.24 Suspension of Community Eligibility

- (a) A community eligible for the sale of flood insurance shall be subject to suspension from the Program for failing to submit copies of adequate flood plain management regulations meeting the minimum requirements of paragraphs (b), (c), (d), (e) or (f) of Sec. 60.3 or paragraph (b) of Sec. 60.4 or Sec. 60.5, within six months from the date the Administrator provides the data upon which the flood plain regulations for the applicable paragraph shall be based.

**Finding 7:** On May 26, 2010 FEMA notified the County by Letter of Final Determination concerning

revised FIRM maps. The County has six months or until November 26, 2010 to adopt the new maps and revise its Flood Plain development regulations consistent with FEMA requirements or risk losing participation in the NIFP. On August 16, 2010 Columbia County received a certified letter from FEMA reminding the County that a local ordinance meeting the minimum NFIP requirements must be adopted by the County and approved by FEMA prior to November 26, 2010. Again, on October 14, 2010 Columbia County received a certified letter as the last official notice that the County must submit an approved floodplain management ordinance with measures that meet or exceed the minimum NFIP requirements by November 26, 2010, to avoid suspension from th NIFP.

The County shall rely on advice from the State Coordinator of the FEMA program for identifying the necessary changes to the county ordinance to meet the minimum requirements of the NFIP. On June 7, 2010 DLCDC, State Floodplain Division, provided the county LDS with a set of necessary changes; and, on September 21, 2010 an additional set of necessary changes were forwarded to the County LDS. The proposed amendments, attached and dated October 29, 2010 include all of the DLCDC's identified mandatory amendments for the County ordinance to be in compliance with the NFIP regulations.

Review of the following County Comprehensive Plan Goal & Policies:

Columbia County Comprehensive Plan has twenty one (XXI) Parts each with a set of general Goals and implementing Policies. These Goals and Policies are implemented by Ordinance, and most specifically the Columbia County Zoning Ordinance. The Flood Hazard Overlay District of the Zoning Ordinance is designed to reduce or avoid damages caused by flood, mudslide or flood related erosion. By protecting the floodplain areas, the county also helps implement other Parts of the Comprehensive Plan. To wit, the Flood Hazard Overlay provides security for Housing (Part VI), stabilization for certain areas of the Economy (Part X), protection of Open Space and Natural Resources (Part XVI), protection of the provision of Recreational Needs (Part XVII), and protection of the Air, Land and Water (Part XVIII).

The most applicable portions of the Comprehensive Plan are Part I - Administrative Procedures for Zoning Text Amendments and Part XIX Natural Disasters - Flood Plain, are reviewed below.

Part I ADMINISTRATIVE PROCEDURES

GOALS:

1. To assure the goals and policies of this plan are implemented.
2. To provide review and revision procedures which include provisions for participation by citizens and affected interest groups.
3. To provide an understandable framework for reviewing and revising this plan.

POLICIES:

5. Provide a framework by which the Comprehensive Plan may be reviewed, revised and amended. Amendments to the Comprehensive Plan and its implementing ordinance(s) shall be in accordance with the following procedures and guidelines:
  - A. Amendments may be initiated by the Board of Commissioners, the Planning

Commission, the Planning Director or the owner(s) of the affected property.

- B. A Citizen Planning Advisory Committee may, upon a majority vote of its members, formally request either the Board of Commissioners or the Planning Commission initiate an amendment.
- C. Revisions or amendments will follow the same process as initial adoption - CPAC review, Planning Commission public hearing and recommendation, and Board hearing and adoption of revisions or amendments.
- D. For quasi-judicial amendments, all property owners within two hundred and fifty (250) feet of the affected area shall be notified of the hearing date and the requested amendment at least ten (10) days prior to the first scheduled public hearing.
- E. For legislative amendments, notice of the public hearing and a copy of the proposed amendment, will be mailed to all Citizen Planning Advisory Committees and interested parties at least ten (10) days prior to the first scheduled public hearing.

**Finding 8:** The Zoning Ordinance is an implementing ordinance of the Comprehensive Plan and is being proposed to be reviewed, revised and amended. This proposed amendment was initiated by the Board of Commissioners on June 23, 2010 and will follow the prescriptive path of CPAC recommendation - Planning Commission recommendation followed by final decision by the Board of Commissioners. All members of the Citizen Planning Advisory Committees were mailed notice with proposed amendments on July 2, 2010. Affected property owners were mailed Measure 56 Notice between 20 to 40 days prior to the initial hearing as per Finding 6. The Planning commission held a public hearing on August 2, 2010 and made recommendation to the board of Commissioners.

Continuing with the Comprehensive Plan Policies

Part XIX Natural Disasters and Hazards

FLOOD PLAIN

GOAL:

Eliminate or reduce the economic and social costs created by flood-caused damages.

POLICY:

1. Columbia County will participate in the National Flood Insurance Program administered by the Federal Emergency Management Agency (FEMA).

**Finding 9:** Columbia County Comprehensive Plan requires the County to have a flood management and flood insurance program through the National program. FEMA sent Columbia County notice of final flood determination for the unincorporated areas of the County on May 26, 2010, instituting an

adoption schedule. FEMA Coordinator for the State of Oregon and FEMA have found that the Columbia County Floodplain Ordinance, Section 1100 Flood Hazard Overlay of the Zoning Ordinance, needs to be amended as proposed to be consistent with State and Federal Guidelines in order for the County to continue participating in the FEMA Flood Insurance Program.

**COMMENTS:**

The following comments have been received from various agencies as of May 23, 2008.

- 1) The Watermaster, District 18 has reviewed the application and has no objection to its approval as submitted.
- 2) The Scappoose Bay Watershed Council has reviewed the proposed amendments and submitted a letter dated July 20, 2010. (Attached) They are particularly interested the proposed amendment in paragraph 2 of Section 1110 Floodways (stream habitat restoration) and have some suggested alternative language. Staff is not opposed to language changes and will work with the Scappoose Bay Watershed Council. Suggested alternative language will be provided the Commission at the hearing.
- 3) The Lower Columbia Watershed Council reviewed the proposed amendments and on August 17, 2010 submitted alternative language for the Section 1110 (2) Stream Habitat Restoration. (Attached)
- 4) The Upper Nehalem CPAC has reviewed the proposed amendments and submitted a referral document with comment - "Do not use the new Flood Overlay Zone to incorporate new building permit requirements".

The Planning Commission recommends the Board not adopt the FIRM maps effective November 26, 2010 until better maps are provided by FEMA and a reliable process is established for the public to remove themselves from the floodplain zone.

5) Pertaining to Amended Language to the Flood Hazard Overlay Zone

- a) The NFIP State Coordinator, On June 7, 2010 Steve Lucker, DLCD Floodplain/Natural Hazards Mapping Specialist sent a communication requiring, as mandatory, the following changes/additions to the county flood management ordinance: Add definitions for - Base Flood Elevation (BFE), Basement, Below-grade Crawlspace, Building Codes, Historic Structure, Recreational Vehicle, Start of Construction, and Substantial Damage. Amend Section 1104.1- by changing the effective date November 26, 2010. Amend Section 1106.4 by adding "and crawlspaces" after basements. Amend Section 1108.3C about on-site waste disposal by adding "consistent with DEQ Administrative Rules. Amend Section 1108 Specific Standards by adding a section specific for standards to Recreational Vehicles. The draft Amendments submitted for consideration to the Planning Commission (August 2, 2010) and the Board (September 1, 2010) included all of June 7, 2010 mandatory amendments.

At the September 1, 2010 Board Public Hearing two comments were received concerned with the proposed language a Recreational Vehicle Park is not allowed to have permanent RV's. It was acknowledged that the requirement to have only temporary units is part of the State

Building Code, and that irregardless of the proposed amendments that requirement would still be in effect. The County is proposing no change.

The June 7, 2010 communication also included several optional additions/change which are not mandatory but strongly recommended. Among those was an amendment in Section 1110 Floodways pertaining to "Projects for Stream Habitat Restoration" that would be permitted in the floodway provided: ...(listing types of projects and qualifications allowable)." Planning Staff added this proposed language on Stream Habitat Restoration straight from the State's recommendation. Many comments were received concerning the proposed language, mostly from agencies providing fish habitat restoration projects. Several draft changes were made to the Stream Habitat section; and, after consultation and deliberation the Board has withdrawn the proposed amendment for Stream Habitat Restoration. The Board determined that amending Columbia County regulations to allow habitat restoration in designated floodways may cause more problems than it resolves; especially, in light that it is not a mandatory amendment. The Stream Habitat Restoration section is not included in the October 29, 2010 Draft Amendments. All other June 7, 2010 mandatory additions/changes are included.

b) On September 21, 2010 Christine Shirley, NIFP State Coordinator, sent a communication requiring, as mandatory, adding definition for Violation; modify definition for New Construction to after 8/23/1977 (Pre-FIRM date), adding a Variance section referencing federal CFR rules, and modifying Section 1111 Standards for AO zones to require for residential and non-residential "one foot above the depth number, or at least three feet above if no depth number". Also required as mandatory was in our AE zones with no floodway designated, any proposed development shall be prohibited unless it is demonstrated that the cumulative effect of the development "will not increase the water surface elevation of the base flood more than one foot".

These mandatory modifications are necessary and supported by Staff. However, as expressed by the Board and Staff, of concern was the provisions in the AE zone without a designated floodway that the added cost of providing an engineer certification using hydrologic and hydraulic analysis, the development would not increase the flood levels more than one foot, would be expensive and could be cost prohibitive for some owners. Staff did not know how many properties would be affected. After identifying the zones, with help from the NFIP State Coordinator's Office, an AE zone without a designated floodway only exist along four streams in the county:

- 1) Columbia River down stream from approx. the section line between 8N3W and 8N4W to the county line with Clatsop County;
- 2) Conyers Creek, couple mile stretch above the confluence with the Clatskanie River;
- 3) Milton Creek from the confluence in Scappoose Bay to the Brinn Road bridge in Yankton, excepting the areas in the City of St. Helens;
- 4) McNulty Creek the area near the mouth that is not in the City of St. Helens.

Staff estimate of the number of parcels affected by the AE Zone w/o floodway:

- |                   |   |           |    |
|-------------------|---|-----------|----|
| 1) Columbia River | - | 200       | TL |
| 2) Conyers Creek  | - | 27        | "  |
| 3) Milton Creek   | - | 57        | "  |
| 4) McNulty Creek  | - | <u>10</u> | "  |
|                   |   | 294       |    |

Note: In Columbia County there are approximately 2500 parcels with A or AE Zones, or about 11% affected parcels

Given the fact that most of the affected parcels are along the Columbia River, in farm use and zoned for exclusive farm use, and given the additional fact that many of the affected parcels are not developable anyway because of wetlands, slopes and adverse soil conditions, staff finds the impact of the revised ordinance pertaining to AE Zone w/o floodway will be minimal. Columbia County issued a press release advising property owners that are if you're in an AE Zone w/o floodway to contact Land Development Services. Most people contacting LDS are not planning to develop within these areas and those who wish to develop are working to be permitted before the ordinance is effective.

**CONCLUSION, DISCUSSION AND RECOMMENDATION:**

FEMA Guidelines in the Code of Federal Regulations require all participating communities of the NIFP adopt and use the same basic standards for managing proposed developments in Flood Hazard areas. Columbia County must amend our regulations to be in compliance with those basic requirements. Mandatory changes include those additions and clarifications as required in the June 7, 2010 and September 27, 2010 letters from the State NFIP Coordinator's Office.

In order to administer the National Flood Insurance Program there must be mapped areas that are subject to flooding. FEMA has provided Columbia County with revised Floodplain Maps that are scientifically prepared. The November 26, 2010 FIRM panels are the best information available and are required to be adopted and used. Individual property owners can amend the flood hazard maps by providing scientific and technical data to take their individual property or structure out of the flood hazard area.

Based upon the above findings, Staff **Recommends Approval** of the legislative amendment to the text of the Columbia County Zoning Ordinance Section 1100 Floodplain Overlay contained in TA10-04 as presented in the October 29, 2010 revised draft submitted for Board consideration.

**Attachments:**

- 1) Proposed amendments with strike-outs for deletions and bold for additions;
- 2) Letter dated July 2, 2010 from the Scappoose Bay Watershed Council.
- 3) E-mail dated August 17, 2010 from Margaret Magruder, Lower Columbia Watershed Council.
- 4) E-mail dated June 7, 2010 from Steve Lucker, DLCD State NFIP Coordinators Office
- 5) E-mail dated September 21, 2010 from Chistine Shirley, DLCD State NFIP Coordinator

**Amendment**

**Additions in RED  
Deletions Strikeout**

**Section 1100 FLOOD HAZARD OVERLAY**

**1101 Purpose:**

It is the purpose of this ordinance 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:

- .1 To protect human life and health;
- .2 To minimize expenditure 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; and,
- .8 To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

**1102 Definitions:**

- .1 "AREA OF SPECIAL FLOOD OVERLAY" means the land in the flood plain within a community subject to a one percent or greater chance of flooding in any given year. Designation on maps always includes the letters A or V.
- .2 "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." Designation on maps always includes the letters A or V.



## Exhibit C

.3 “BASE FLOOD ELEVATION (BFE)” means the water surface elevation during the base flood in relation to a specified datum. The Base Flood Elevation is depicted on the FIRM to the nearest foot and in the FIS to the nearest 0.1 foot.

.4 “BASEMENT” means the portion of a structure with its floor sub grade (below ground level) on all sides.

.5 “BELOW-GRADE CRAWLSPACE” means an enclosed area below the base flood elevation in which the interior grade is not more than two feet below the lowest adjacent exterior grade and the height, measured from the interior grade of the crawlspace to the top of the crawlspace foundation, does not exceed 4 feet at any point.

.6 “BUILDING CODES” means the combined specialty codes adopted under ORS 446.062, 446.185, 447.020 (2), 455.020 (2), 455.496, 455.610, 455.680, 460.085, 460.360, 479.730 (1) or 480.545, but does not include regulations adopted by the State Fire Marshal pursuant to ORS chapter 476 or ORS 479.015 to 479.200 and 479.210 to 479.220.

.7 “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 located within the area of special flood hazard.

*[Amended by Ordinance No. 2008 - 3, effective July 9, 2008].*

.8 4 “FLOOD OR “FLOODING” means a general and temporary condition of partial or complete inundation of normally dry land areas from:

- (1) The overflow of inland or tidal waters, and/or
- (2) The unusual and rapid accumulation of runoff of surface waters from any source.

.9 5 “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 risk premium zones applicable to the community.

.10 6 “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.

.11 7 “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.

.12 "HISTORIC STRUCTURE" means a structure that is:

- (a) Listed individually in the National Register of Historic Places (a listing maintained by the U.S. Department of 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 to a district preliminarily determined by the Secretary to qualify as a registered historic district;
- (c) Individually listed on a state inventory of historic places and determined as eligible by states with historic preservation programs which have been approved by the Secretary of the Interior, or ;
- (d) Individually listed on a local inventory of historic places and determined as eligible by communities with historic preservation programs that have been certified either:
  - i. By an approved state program as determined by the Secretary of the Interior, or;
  - ii. Directly by the Secretary of the Interior in states without approved programs.

~~.8 "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 this ordinance found at Section 1110.1A.~~

.13 "LOWEST FLOOR" means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure used solely for parking of vehicles, building access, or storage, in an area other than a basement, is not considered a structure's lowest floor provided that the enclosed area is built and maintained in accordance with the applicable design requirements of the Building Code. *[ modified for clarity 2010 ]*

.14 "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. For flood plain management purposes the term "manufactured home" also includes park trailers, travel trailers, and other similar vehicles placed on a site for greater than 180 consecutive days. For insurance purposes the term "manufactured home" does not include park trailers, travel trailers, and other similar vehicles.

## Exhibit C

.15 "NEW CONSTRUCTION" means structures for which the "start of construction" commenced ~~on or~~ after August 23, 1977 ~~the effective date of this ordinance~~ and includes subsequent substantial improvements to the structure.

.16 ~~11~~ "PRIMARY ZONE" means the underlying zone upon which the Flood Hazard Overlay Zone is superimposed.

.17 "RECREATIONAL VEHICLE" means a vehicle that 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 towed 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.

.18 "START OF CONSTRUCTION" includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, placement or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundation or 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 the alteration affects the external dimensions of a building.

.19 ~~13~~ "STRUCTURE" means a walled and roofed building including a gas or liquid storage tank that is principally above ground.

.20 "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 its market value before the damage occurred.

~~.14 "SUBSTANTIAL IMPROVEMENT" means any repair, reconstruction, or improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure either:~~

- ~~A. Before the improvement or repair is started, or~~
- ~~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.~~

.21 "SUBSTANTIAL IMPROVEMENT" means reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the "start of construction" of the improvement. This term includes structures which have incurred "substantial damage," regardless of the actual repair work performed. The market value of the structure should be:

- (1) The appraised real market value of the structure prior to the start of the initial repair or improvement, or
- (2) In the case of damage, the appraised real market value of the structure prior to the damage occurring. The term does not include either:
  - (a) A project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications, which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions, or
  - (b) Alteration of an Historic Structure, provided that the alteration will not preclude the structure's continued designation as an Historic Structure.

.22 "VIOLATION" means the failure of a structure or other development to be fully compliant with the community's flood plain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance is presumed to be in violation until such time as that documentation is provided.

### **1103 Application:**

.1 This zone shall apply to all areas of special flood hazards within the jurisdiction of Columbia County.

### **1104 Basis for Special Flood Hazard Areas**

.1 The areas of special flood hazard identified by the Federal Insurance Administration in a scientific and engineering report entitled "The Flood Insurance Study for Columbia County, Oregon and Incorporated areas", dated ~~August 16, 1988~~ **November 26, 2010**, with accompanying Flood Insurance maps is hereby adopted by reference and declared to be part of this ordinance. The Flood Insurance Study is on file at the Columbia County Department of Land Development Services office, County Courthouse, St. Helens, Oregon.

### **1105 Development Permit**

.1 A development permit shall be obtained before construction or development begins within any area of special flood hazard established in Section 1104. The permit shall be for all structures allowed by the underlying zone, including manufactured homes, as set forth in the "Definitions", and for all development including fill and other activities, also set forth in the "Definitions". The following exceptions apply for the storage of equipment or materials:

- A. any temporary storage within any zoning district, and

B. permanent storage connected with residential use located out of the floodway.  
*[Amended by Ordinance No. 2008 - 3, effective July 9, 2008].*

**1106 Administration**

- .1 The Land Development Services Administrator, or his designee, is appointed to administer and implement this ordinance by granting or denying development permit applications in accordance with its provisions.
- .2 Duties of the Administrator shall include, but not be limited to, reviewing all development permits to determine:
  - A. That the permit requirements of this ordinance have been satisfied.
  - B. That all necessary permits have been obtained from those Federal, State, or local government agencies from which prior approval is required.
  - C. If the proposed development is located in the floodway, assure that the encroachment provisions of Section 1110) are met.
- .3 When base flood elevation data has not been provided in accordance with Section 1104, Basis for Special Flood Hazard Areas, the Administrator 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 Sections 1109 Specific Standards, and 1110 Floodways.
- .4 Where base flood elevation ~~date~~ data is provided through the Flood Insurance Study or required as in Section 1106.3, the Administrator will obtain and record the actual elevation (in relation to mean sea level) of the lowest floor (including basements and crawlspaces) of all new or substantially improved structures, and whether or not the structure contains a basement.
- .5 For all new or substantially improved floodproofed structures, the Administrator will:
  - A. Verify and record the actual elevation (in relation to mean sea level), and
  - B. Maintain the floodproofing certifications required in Section 1109.2.A(3).
- .6 The Administrator will maintain for public inspection all records pertaining to the provisions of this ordinance.
- .7 For alteration of water courses the Administrator shall:

## Exhibit C

- A. Notify adjacent communities and the Department of Land Conservation and Development prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration.
- B. Require that maintenance is provided within the altered or relocated portion of said watercourse so that the flood carrying capacity is not diminished.

### **1107 Interpretation of Firm Boundaries**

~~The Administrator shall make interpretations where needed, as to 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 person contesting the location of the boundary shall be given 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).~~

### **1107 Interpretation, Appeals and Variances**

- .1 The Administrator shall make interpretations where needed, as to 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).
- .2 The person contesting the location of the boundary shall be given 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 Variances to the standards of flood hazard areas shall be administered according to Section 1504 of this Ordinance and 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).

### **1108 General Standards**

#### **.1 Anchoring**

- A. All new construction and substantial improvement shall be anchored to prevent flotation, collapse, or lateral movement of the structure.
- B. 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").

**2 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. 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.

**.3 Utilities**

- A. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system;
- B. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into flood waters; and,
- C. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding **consistent with the administrative rules of the Oregon Department of Environmental Quality.**

**.4 Subdivision Proposals:**

- A. All subdivision proposals shall be consistent with the need to minimize flood damage;
- B. All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage;
- C. All subdivision proposals shall have 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 subdivision proposals and other proposed developments which contain at least 50 lots or 5 acres (whichever is less).

**.5 Building Permit Review**

- A. Where elevation data is not available either through the Flood Insurance Study or from another authoritative source (Section 1106.3), Applications for building permits shall be reviewed to assure that proposed construction will be reasonably safe from flooding. The test of reasonableness is a local judgment and includes uses of historical data, high water marks, photographs of past flooding, etc., where available. Failure to elevate at least two feet above grade in these zones may result in higher insurance rates.

**1109 Specific Standards**

In all areas of special flood hazards where base flood elevation data has been provided as set forth in Sections 1104 or 1106.3, 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 to a **minimum** of one (1) foot 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 flood waters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria:
  - (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 flood waters.



**.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 to a minimum of one (1) foot above the base flood elevation; or, together with attendant utility and sanitary facilities, shall:

- (1) be floodproofed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water;
- (2) have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy;
- (3) be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting provisions of this subsection based on their development and/or review of the structural design, specifications and plans. Such certifications shall be provided to the official as set forth in Section 1106.5.
- (4) Nonresidential structures that are elevated, not floodproofed, must meet the same standards for space below the lowest floor as described in 1109.1.B.
- (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 foot below that level).  
*[Amended by Ordinance No. 2008 - 3, effective July 9, 2008].*

**.3 Manufactured Homes**

A. All manufactured homes to be placed or substantially improved within zones A1-30, AH, and AE 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 1108.1.B.

**.4 Recreational Vehicles**

**Recreational vehicles placed on sites are required to either:**

- (I) Be on the site for fewer than 180 consecutive days

- (ii) Be fully licensed and ready for highway use, on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions; or
- (iii) Meet the requirements of 3(A) above and the elevation and anchoring requirements for manufactured homes.

### **1110 Floodways**

- .1 Located within areas of special flood hazard established in Section 1104 are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of flood waters which carry debris, potential projectiles, and erosion potential, the following provisions apply:
  - A. Prohibit encroachments, including fill, new construction, substantial improvements, and other development unless certification by a registered professional engineer or architect is provided demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.
  - B. If Section 1110.1A. is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of Sections 1108 through 1111.

### **1111 Standards for Shallow Flooding Areas (AO Zones)**

- .1 Shallow flooding areas appear on FIRM's 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:
  - A. New construction and substantial improvements of residential structures within AO zones shall have the lowest floor (including basement) elevated or floodproofed to at least one foot above the depth number specified on the FIRM, or at least 3 feet above highest adjacent grade when no depth number is specified. ~~above the highest adjacent grade of the building, site~~

~~to or above the depth number specified on the FIRM (at least two feet if no depth number is specified):~~

- B. New construction and substantial improvements of nonresidential structures within AO zones shall either:
- (1) have the lowest floor (including basement) elevated 2 feet above the highest adjacent grade of the building site, to or above the depth number specified on the FIRM (at least two feet if no depth number is specified); or
  - (2) together with 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 engineer or architect as in Section 1109.2.A(3).
- C. Require adequate drainage paths around structures on slopes to guide flood waters around and away from proposed structures.

**1112 Standards for Areas Where Elevations are Determined (AE Zones)**

In areas within Zones A1-30 and AE on the community FIRM with a Base Flood Elevation but where no regulatory floodway has been designated, new construction, substantial improvements, or other development (including fill) shall be prohibited, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other and anticipated development, will not increase the water elevation of the base flood more than one foot at any point within the community.