REQUEST: Amendment to the Coos County Comprehensive Plan and Zoning and Land Development Ordinance

STAFF CONTACT: Jill Rolfe, Planning Director

REVIEWING BODY: Coos County Board of Commissioners

APPLICABLE CRITERIA

Coos County Zoning and Land Development Ordinance (LDO), Coos County Comprehensive Plan (CCCP), Oregon Administrative Rule (OAR)

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<th>LDO</th>
<th>Article 1.2</th>
<th>Legislative Amendments</th>
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I. PROPOSAL

Legislative amendments to the Coos County Zoning & Land Development Ordinance (LDO) and Coos County Comprehensive Plan (CCCP) for:
1. Article 4.6 Floodplain Regulation (§ 4.6.100 through § 4.6.239 only)
2. CCCP and LDO Policy 5.11 Natural Hazards

On September 17, 2013, Coos County received formal notice that the final flood hazard determination for the Unincorporated Areas of Coos County was in compliance with Title 44, Chapter I, Part 67, § 67.11, code of Federal Regulation (CFR). The letter further explained that on September 29, 2009, the Department of Homeland Security’s Federal Emergency Management Agency (FEMA) issued Flood Insurance Maps (FIRM) that identified the Special Flood Hazard Areas (SFHAs), the areas subject to inundation by the base (1-percent-annual-chance) flood. FEMA completed a re-evaluation of flood hazards in Coos County and on April 29, 2011, FEMA provided preliminary copies of the Flood Insurance Study (FIS) report and FIRM that identify existing flood hazards in Coos County including Base Flood Elevations (BFEs). The proposed flood hazard determinations (FHD’s) were published in The World Newspaper on February 28, 2013 and March 7, 2013, and in the Federal Register, at Part 37, Volume 77, Number 249, Page 76502, on December 28, 2012. The statutory 90-day appeal period, which was initiated on the second newspaper publication date cited ended and FEMA did not receive any appeals of the proposed FHDs during that time. Therefore, the FHDs are considered final. Coos County must adopt or show evidence of adoption of floodplain management regulations that meet the standards to continue to be eligible to participate in the NFIP by March 17, 2014.

In order to remain in the National Flood Insurance Program (NFIP), the County must adopt an updated ordinance referencing the study and newly digitized maps prior to the effective date. The County has participated in the NFIP since the mid-1980s.

FEMA has used LiDAR to determine the appropriate boundaries of the floodplain. In addition to using the FIS report and FIRM to manage development in the floodplain, FEMA will use the FIS report to establish...
appropriate flood insurance rates. The FIS report will be available to view upon request.

The Planning Commission reviewed this language on March 6, 2014. The Commissioners listen to testimony presented. Most of the testimony was in regards to mapping errors. There is a formal process to allow map revisions and modifications through FEMA and the County’s ordinance. Other testimony was in regards to the cost and burden to the property owners to prove they were not in the floodplain. Some of these issues were not within the County’s authority. The concerns did not seem to be about the County’s administering the program for development but the lack of willingness by the insurance companies to accept the County’s determination that a site is outside of the floodplain. Staff added some language in §4.6.207 to help with those concerns but the County has to be aware of liability issues as well.

Currently Coos County does not have a Certified Floodplain Manager (CFM) but hope to solve that issue in the future. In order to become certified a staff member will have to be trained and trainings are not usually local. The lack of a CFM does not prohibit the county from participating in the program but limits some of the abilities.

Staff has also added in some language (highlighted in yellow) to address the alteration of watercourses. The prior language did not seem to address watercourse change concerns that have been brought up in the past. Staff was doing some research after the Planning Commission meeting and came across this language that seems to address those concerns.

There was an open house held hosted by Department of Land Conservation and Development on the mapping and all changes to the NFIP. This was held on April 8, 2013 in the Owen Building. The meeting was published in the local news papers but was not required by law to send out individual notice because it was an open house. This was an opportunity for people to provide any public input.

Staff will be available at the meeting with new paper maps as well as the online maps to show anyone where the new floodplain is located in relationship to their property.

Notice of this meeting was provided to any property owner that could potentially be impacted by the change. The notice was mailed out 20 days prior to the hearing.

The proposed amendments are at Attachment “A” to this staff report; deleted language is shown with strikethrough and new language is bold/italic.

Staff has included as an attachment to this report various FEMA\(^1\) information including: a handout titled adoption of Flood Insurance Rate Maps by Participating Communities; September 17, 2013 a letter concerning summary of map actions; and January 31, 2014 letter explaining why it is important to adopt the changes by March 17, 2014. Also included is the recommendations made by the Planning Commission and the proposed ordinance for adoption.

COOS COUNTY PLANNING DEPARTMENT

Jill Rolfe, Planning Director

Attachments: “A” Proposed Changes with edits
“B” Information from FEMA

EC: County Counsel
Dave Perry, DLCD

\(^1\) This information can be found at Attachment “B”
ARTICLE 4.6 OVERLAY ZONES

SECTION 4.6.100 PURPOSE: Overlay zones may be super-imposed over the primary zoning district and will either add further requirements or replace certain requirements of the underlying zoning district. The requirements of an overlay zone are fully described in the text of the overlay zone designations.

SECTION 4.6.200 FLOODPLAIN: It is the purpose of this section of the 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 designated:
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.

SECTION 4.6.201 WARNING AND DISCLAIMER OF LIABILITY: The degree of flood protection from this Ordinance is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This Ordinance 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 ordinance shall not create liability on the part of Coos County, any officer or employee thereof for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made there under.

SECTION 4.6.203 MANUFACTURED HOME AND MANUFACTURED HOME PARK OR SUBDIVISION WITHIN DESIGNATED FLOOD AREAS: The following definitions shall only apply to those provisions and requirements contained within Sections 4.6.200 to 4.6.290, inclusive:

“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 floodplain management purposes the term “manufactured home” also includes park trailers, travel trailers, recreational vehicles, and other similar vehicles placed on site for greater than 180 consecutive days. For insurance purposes the term “manufactured home” does not include park trailers, travel trailers, recreational vehicles, and other similar vehicles.

“Manufactured Home Park or Subdivision” means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.
SECTION 4.6.205 INTERPRETATION: In the interpretation and application of the Flood Hazard Overlay (/FP), all provisions shall be:
1. Considered as the minimum requirements; and
2. Deemed neither to limit nor to repeal any other powers granted under state statutes, including state building codes.

SECTION 4.6.207 DESIGNATION OF FLOOD AREAS:
1. The area of Coos County that is within a special flood hazard area identified by the Federal Insurance Administration in a scientific and engineering report entitled “The Flood Insurance Study for Coos County, Oregon and Incorporated Areas”, dated September 25, 2009 March 17, 2014, with accompanying Flood Insurance Map (FIRM) is hereby adopted by reference and declared to be part of this ordinance. The Flood Insurance Study and the FIRM are on file at the Coos County Planning Department.
2. Whenever sufficient data for a portion of a watercourse have been provided to permit the designation of a regulatory floodway, Coos County shall adopt boundaries for a regulatory floodway. The floodway shall be designed to carry the waters of a base flood without increasing water surface elevation at any point more than one foot above the established base flood elevation. The area of Coos County within an adopted regulatory floodway shall be subject to the additional requirements of this Ordinance for the prevention of flood damage.
3. When base flood elevation data has not been provided in accordance with #1 above, Coos County shall require a property development applicant to obtain base flood elevation data; Coos County shall use this “other” data to administer this Ordinance. This data may be obtained from a Federal, State or other source, including the U.S. Army Corps of Engineers, Soil Conservation Service, or Engineers. In the absence of an up-to-date engineering study, local newspapers, Regional Planning Groups and informed local witnesses can be a source of historical flooding data. The Planning Director, Planning Commission or Board of Commissioners may exercise local judgment based on historical data.
4. The base contour maps (Flood Insurance Rate Maps and Flood Boundary—Floodway maps) showing areas of special flood hazard are not detailed enough to reflect all site conditions. Where the map information clearly does not reflect actual site conditions, the Planning Director, Hearings Body or Board of Commissioners may interpret the exact location of the special Flood Hazard Boundary and Floodway Boundary. This determination is subject to appeal subject to Article 5.8.
5. In the case of #3 or #4 above the information shall be made public so that applicants may use that information to dispute floodplain rates or proceed with a letter of map revision or letter of map amendment through FEMA.

SECTION 4.6.209 PERMITTED USES: In a district in which the /FP zone is combined, those uses permitted by the underlying district are permitted outright in the /FP FLOATING ZONE Overlay Zone, subject to the provisions of this article.

SECTION 4.6.211 CONDITIONAL USES: In a district with which the /FP is combined, those uses subject to the provisions of Article 5.2 (Conditional Uses) may be permitted in the /FP FLOATING ZONE Overlay Zone, subject to the provisions of this article.

SECTION 4.6.213 IDENTIFICATION OF FLOOD HAZARD ON VERIFICATION LETTER: The verification letter pursuant to SECTION Section 1.3.200 issued by the Coos County Planning Department shall identify whether the parcel of land for which a building permit is required is within any area of Special Flood Hazard established by Section 4.6.205.
SECTION 4.6.215 FLOOD ELEVATION DATA: For the purpose of determining applicable flood insurance risk premium rates Coos County shall:

1. Obtain, or require the applicant to furnish the following:
   a. The elevation (in relation to mean sea level) of the lowest habitable floor (including basement and below-grade crawl spaces) of all new or substantially improved structures, and whether or not such structures contain a basement. The Base Floodplain Elevation (BFE) determination must be based on information from the FIS study and the FEMA maps;
   b. If a structure is to be flood proofed, the elevation (in relation to mean sea level) to which the structure will be flood proofed shall be provided;
2. Maintaining flood proofing certifications for public inspections pertaining to provisions of the FP zone.

SECTION 4.6.217 PROCEDURAL REQUIREMENTS FOR DEVELOPMENT WITHIN SPECIAL FLOOD HAZARD AREAS: The following procedure and application requirements shall pertain to the following types of development:

1. Structures: Prior to issuance of a Zoning Compliance Letter (also refer to as a verification or clearance letter) pursuant to Section 3.1.200, a proposal for construction of a new structure or substantial improvement of an existing structure within a Special Flood Hazard Area shall be submitted with an “APPLICATION FOR DEVELOPMENT IN SPECIAL FLOOD HAZARD AREAS.”

As provided in this section, an applicant must submit with the development proposal an “Application for Development in Special Flood Hazard Areas.” This application must provide a plan drawn to scale showing the nature, location, dimensions, and elevations of the area in question; existing and proposed structures, fill, storage of materials, drainage facilities, and the location of the foregoing. Specifically, the following information is required:

a. Elevation in relation to mean sea level, of the lowest floor (including basement) of all structures;

b. Elevation in relation to mean sea level of flood proofing in any structure;

c. Certification by a registered professional engineer or architect that the flood proofing methods for any non residential structure meet the flood proofing criteria.

d. Description of the extent to which a watercourse will be altered or relocated as a result of proposed development. No relocation or substantial alteration of a watercourse shall be permitted unless a detailed hydraulic analysis, certified by a Registered Professional Engineer, is provided which demonstrates that:

   i. The flood carrying capacity for the altered or relocated portion of the watercourse will be maintained;

   ii. The area subject to inundation by the base flood discharge will not be increased; and

   iii. The alteration or relocation will cause no measurable increase in base flood levels.

If the county determines that the application complies with zoning ordinance (including the FP overlay zone), the county issues a “conditional zoning compliance letter” which enables the applicant to obtain building permits from the State Building Codes Agency.
Upon completion of construction, the applicant must submit a “post-construction elevation certification/flood proofing certificate” to the Coos County Planning Department. Upon verification of compliance with all requirements in the FP overlay zone, Coos County shall issue to the applicant a Flood Hazard Compliance Letter. The applicant shall present the flood hazard compliance letter to the State Building Codes Agency in order to obtain an occupancy permit or certificate of inspection.

2. Water Systems. Coos County recognizes the State Water Resources Department as the sole permit issuing agency pertaining to individual private wells supplying water to one or two residences except as may be established in new subdivisions or planned unit developments [see Section 4.6.260 (2)-(3)].

3. Sanitary Sewage Systems. Prior to a new installation, replacement or repair of an on-site septic system, the applicant shall request from the county a “Zoning Clearance Letter” (zoning verification). Coos County shall recognize the Department of Environmental Quality installation, replacement, and repair standards as sufficient to avoid impairment to the system or contamination from the system during flooding. Prior to new installation or replacement of an existing sanitary sewage system, the applicant shall request from the county a zoning clearance letter. Coos County shall recognize the Department of Environmental Quality installation and replacement standards as sufficient to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into the flood waters.

4. Other Development. “Other development” includes mining, dredging, filling, grading, paving, excavation or drilling operations located within the area of a special flood hazard, but does not include such uses as normal agricultural operations, fill less than 12 cubic yards, fences, road and driveway maintenance, landscaping, gardening and similar uses which are excluded from definition because it is the County’s determination that such uses are not of the type and magnitude to affect potential water surface elevations or increase the level of insurable damages.

Review and authorization of a floodplain application must be obtained from the Coos County Planning Department before “other development” may occur. Such authorization by the Planning Department shall not be issued unless it is established, based on a licensed engineer’s certification that the “other development” shall not:

a. Result in any increase in flood levels during the occurrence of the base flood discharge if the development will occur within a designated floodway; or,

b. Result in a cumulative increase of more than one foot during the occurrence of the base flood discharge if the development will occur within a designated flood plain outside of a designated floodway.

5. Critical Facility. Construction of new critical facilities shall be, to the extent possible, located outside the limits of the Special Flood Hazard Area (SFHA) (100-year floodplain). Construction of new critical facilities shall be permissible within the SFHA if no feasible alternative site is available. Critical facilities constructed within the SFHA shall have the lowest floor elevated three feet above BFE or to the height of the 500-year flood, whichever is higher. Access to and from the critical facility should also be protected to the height utilized above. Flood proofing and sealing measures must be taken to ensure that toxic substances will not be displaced by or released into
floodwaters. Access routes elevated to or above the level of the base flood elevation shall be provided to all critical facilities to the extent possible.

SECTION 4.6.219 SITES WITHIN SPECIAL FLOOD HAZARD AREAS:

1. If a proposed building site is in a special flood hazard area, all new construction and substantial improvements (including placement of prefabricated buildings and mobile homes), otherwise permitted by this Ordinance, shall:
   a. be designed (or modified) and adequately 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 “Manufactured Home Installation in Flood Hazard Areas” guidebook for additional techniques);
   b. be constructed with materials and utility equipment resistant to flood damage;
   c. be constructed by methods and practices that minimize flood damage; and
   d. electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities shall be designed and/or otherwise elevated or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

2. All new construction and substantial improvements of residential structures shall have the lowest habitable floor (including basement and below-grade crawl spaces) elevated a minimum of one foot above the known base flood level. Fully enclosed areas below the lowest floor that are subject to flooding shall be 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:
   a. A minimum of two openings having a total net area of not less than one square inch for every foot of enclosed area subject to flooding shall be provided.
   b. The bottom of all openings shall be no higher than one foot above grade.
   c. Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.
   d. electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities shall be designed and/or otherwise elevated or located so as to prevent water from entering or accumulating within the components during conditions of flooding.
   e. Accessory structures to a residential structure (e.g., sheds, detached garages) do not represent significant investments and therefore may be treated differently in regard to the application of flood plain management measures outside a delineated floodway. In lieu of the elevation standard above, accessory structures may be permitted provided:
      i. Accessory structures shall not be used for human habitation.
      ii. Accessory structures shall be designed to have low flood damage potential.
      iii. Accessory structures shall be constructed and placed on the building site so as to offer the minimum resistance to the flow of floodwaters. Openings may be equipped with screens, louvers, or other covering or devices provided that they permit the automatic entry and exit of floodwaters.
      iv. Accessory structures shall be firmly anchored to prevent flotation which may result in damage to other structures.

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service facilities such as electrical and heating equipment shall be elevated above the base flood elevation or floodproofed.

Construction under the provisions of (i) through (v) above will result in increased flood insurance premium rates, which may be prohibitive.

3. All new construction and substantial improvements of any commercial, industrial or other non-residential structure shall either have the lowest floor, including basement, elevated one foot above the base flood elevation; or together with attendant utility and sanitary facilities, shall:
   a. Be floodproofed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water;
   b. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy;
   c. Be certified by a registered professional engineer or architect that the standards of this subsection are satisfied;
   d. Meet the same standards for space below the lowest floor as described in Section 4.6.235(2) if the structure is elevated but not floodproofed; and
   e. 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.

Applicants floodproofing nonresidential buildings shall be notified that flood insurance premiums will be based on rates that are one foot below the floodproofed level (i.e. a building floodproofed to the base flood level will be rated as one foot below).

4. All new construction and substantial improvements of any agricultural structure shall either have the lowest floor, including basement, elevated one foot above the base flood elevation; meet the floodproofing requirements of (3) above; or together with attendant utility and sanitary facilities shall:
   a. Have a low potential for structural flood damage;
   b. Be designed and oriented to allow the free passage of floodwaters through the structure in a manner affording minimum flood damage;
   c. Ensure that all electrical and mechanical equipment subject to floodwater damage and permanently affixed to the structure be elevated above the base flood elevation; and
   d. Be certified by a registered professional engineer or architect that the standards of this subsection are satisfied.

Construction under the provisions of (a) through (d) above will result in increased flood insurance premium rates which may be prohibitive.

SECTION 4.6.221 MANUFACTURED HOMES: 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 one foot above the base flood elevation and 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 “Manufactured Home Installation in Flood Hazard Areas” guidebook for additional techniques.

SECTION 4.6.223 RECREATIONAL VEHICLES: All recreational vehicles placed, within the A1-A30, AH, and AE zones shall be elevated on permanent foundation such that the lowest
floor of the recreational vehicle is one foot above the base flood elevation and installed using methods and practices that minimize flood damage. Anchoring methods may include, but are not limited to, use of over-the-top or frames ties to ground anchors.

**SECTION 4.6.225 REVIEW OF LAND SUBDIVISION APPLICATIONS:** Coos County shall be responsible for receiving applications and examining plans for land divisions. Coos County shall require certification by a registered civil engineer that land subdivision proposals shall be reasonably safe from flooding. If a subdivision proposal is in a special flood hazard area, the proposal and engineer's certification shall be reviewed to assure that:

1. The proposal is consistent with the need to minimize flood damage and to ensure that building sites will be reasonably safe from flooding [44CFR60.3(a)(3) and (4)]
2. Building lots shall have adequate buildable area outside of floodways.
3. All public utilities and facilities, such as sewer, gas, electrical and water systems are located and constructed to minimize or eliminate flood damage. And
4. Adequate drainage is provided to reduce exposure to flood hazards; and
5. Where base flood elevation has not been provided or is not available from another alternative source, it shall be generated for subdivision proposals. Base flood elevation data shall be generated and/or provided for subdivision proposals and all other proposed development, including manufactured home parks and subdivisions greater than 50 lots or 5 acres, whichever is less [44 CFR 60.3 (a)(4) and (5)].
6. All on-site waste disposal systems shall be located and constructed to avoid functional impairment or contamination during flooding.

**SECTION 4.6.227 EVALUATION OF VARIANCE APPLICATIONS:**

1. In lieu of the findings required by Article 5.3, an application for a variance to the standards of this overlay zone may be approved only if the following findings are made:
   a. materials which may be swept onto other lands would not pose a threat of undue danger or injury to others;
   b. the proposed development will not pose a danger to life or property due to flooding or erosion damage;
   c. failure to grant the variance would result in exceptional hardship to the applicant;
   d. granting the variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense or create nuisances; and
   e. the variance is the minimum necessary to afford relief.

2. Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.

3. A variance for historic preservation may be granted without consideration of the factors set forth above for the reconstruction, rehabilitation or restoration of a structure listed on the National Register of Historic Places or the State Inventory of Historic Places, or as otherwise identified in the Coos County Comprehensive Plan.

4. Variance applications are subject to notice and appeal pursuant to §5.0.900(B).

**SECTION 4.6.229 FLOODWAYS:** Located within special flood hazard areas established in Section 4.6.205 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:

1. Encroachment, including fill, new construction, substantial improvements and other developments shall be prohibited, unless certification by a registered professional civil engineer is provided demonstrating through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.

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2. If (1) above is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of this Article (Article 4.6).

3. Projects for stream habitat restoration may be permitted in the floodway provided:
   a. The project qualifies for a Department of the Army, Portland District Regional General Permit for Stream Habitat Restoration (NWP-2007-1023); and
   b. A qualified professional (a Registered Professional Engineer; or staff of NRCS; the county; or fisheries, natural resources, or water resources agencies) has provided a feasibility analysis and certification that the project was designed to keep any rise in 100-year flood levels as close to zero as practically possible given the goals of the project; and
   c. No structures would be impacted by any potential rise in flood elevation; and
   d. An agreement to monitor the project, correct problems, and ensure that flood carrying capacity remains unchanged is included as part of the local approval.

4. Manufactured dwellings may only be located in floodways only if according to one of the following conditions if the manufactured dwelling already exists in the floodway, the placement was permitted at the time of the original installation, and the continued use is not a threat to life, health, property, or the general welfare of the public. 

5. Manufactured dwellings are not permitted in the floodway\(^1\), \(V^2\) or \(VE^3\) zones as of the date this ordinance is adopted. Even if there was some other type of dwelling permitted in the past it may only be replaced with a stick-built (conventional) dwelling only if the dwelling meets the following criteria:
   a. The replacement dwelling will not be a threat to life, health, property, or general welfare of the public. As required, it must be demonstrated through hydrologic and hydraulic analysis performed in accordance with standard engineering practices that the manufactured dwelling and any accessory buildings, accessory structures, or any property improvements (encroachments) will not result in any increase in flood levels during the occurrence of the base flood discharge.
   b. The replacement dwelling and any accessory building or structures (encroachments) shall have the finished floor elevated to a minimum of 18 inches (46 cm) above the BFE as defined on the FIRM.
   c. The replacement dwelling must be placed and secured to a foundation support system designed by an Oregon professional engineer or architect and approved by the authority having jurisdiction (Oregon State Building Codes Division or other authority).
   d. The new dwelling and any accessory buildings or structures must not displace water to the degree that it causes a rise in the water level or diverts water in a manner that causes erosion or damage to other properties.
   e. The location of the replacement dwelling must be allowed by the Planning Department’s LDO.
   f. Any other requirement deemed necessary by any authority having jurisdiction.

A new manufactured dwelling has replaced an existing manufactured dwelling whose original placement was permitted at the time of installation and the replacement home will not be a threat to life, health, property, or the general welfare of the public and it meets the following criteria:

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\(^1\) The Floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increase in flood heights.

\(^2\) Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.

\(^3\) Coastal flood zone with velocity hazard (wave action); Base Flood Elevation determined
1. As required, it must be demonstrated through hydrologic and hydraulic analysis performed in accordance with standard engineering practices that the manufactured dwelling and any accessory buildings, accessory structures, or any property improvements (encroachments) will not result in any increase in flood levels during the occurrence of the base flood discharge.

2. The replacement of the manufactured dwelling and any accessory buildings or accessory structures (encroachments) shall have the finished floor elevated a minimum of 18 inches (46cm) above the BFE as defined on the Flood Insurance Rate Map.

3. The replacement manufactured dwelling is placed and secured to a foundation support system designed by an Oregon professional engineer or architect and approved by the authority having jurisdiction.

4. The replacement manufactured dwelling, its foundation supports, and any accessory buildings, accessory structures, or property improvements (encroachments) do not displace water to the degree that it causes a rise in the water level or diverts water in a manner that causes erosion or damage to other properties.

5. The location of a replacement manufactured dwelling is allowed by the local planning department's ordinance; and

6. Any other requirements deemed necessary by the authority having jurisdiction.

SECTION 4.6.231 ALTERATION OF WATER COURSES: If a development application proposes a stream, creek or other water body relocation or alteration, Coos County shall:

1. Notify affected cities and the State Coordinating Agency (Department of Land Conservation and Development – DLCD) and other appropriate state and federal agencies prior to any alteration or relocation of a water course, and shall submit evidence of such notification to the Federal Insurance Administration at the following address (or if the office moves, at any subsequent address):
   Federal Insurance Administration
   500 C Street SW
   Washington, DC 20472

2. Require that maintenance is provided within the altered or relocated portion of said water course so that the flood carrying capacity is not diminished.

SECTION 4.6.233 SHALLOW FLOODING AREAS: 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:

1. New construction and substantial improvements of residential structures and manufactured homes with AO zones shall have the lowest floor (including basement) elevated at least one foot above the highest adjacent grade of the building site, to or above plus the depth number specified on the FIRM or (at least two feet if no depth number is specified).

2. New construction and substantial improvements of non-residential structures within AO zones shall either:
a. have the lowest floor (including basement) elevated one foot above the highest adjacent grade of the building site, to or above plus the depth number specified on the FIRM or (at least two feet if no depth number is specified.); or
b. 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 4.6.235.
c. Require adequate drainage paths around structures on slopes to guide floodwaters around and away from proposed structures.
d. Where hazardous velocities were noted on the FIRM, consideration shall be given to mitigating the effects of these velocities through proper construction techniques and methods.

SECTION 4.6.235 COASTAL HIGH HAZARD AREA: Coastal high hazard areas (V zone) appear on FIRM’s. These areas have special flood hazards associated with high velocity waters from tidal surges and hurricane wave wash; therefore, the following provisions shall apply:

1. All buildings or structures shall be located landward of the reach of the mean high tide.
2. All new construction and substantial improvements of existing development or manufactured homes in zones V1-V30 and VE (V if base flood elevation data is available) shall be elevated on pilings and columns so that:
   a. The bottom of the lowest horizontal structural member of the lowest floor (excluding the pilings or columns) is elevated one foot or more above the base flood level; and
   b. The pile or column foundation and structure attached thereto is anchored to resist flotation, collapse and lateral movement due to the effects of wind and water loads acting simultaneously on all building components. Wind and water loading values shall each have a one percent chance of being equaled or exceeded in any given year (100 year mean recurrence interval).

A registered professional engineer or architect shall develop or review the structural design, specifications and plans for the construction and shall certify that the design and methods of construction to be used are in accordance with accepted standards of practice for meeting the provisions of (a) and (b) of this Section.

3. Obtain the elevation (in relation to mean sea level) of the bottom of the lowest structural member of the lowest floor (excluding pilings and columns) of all new and substantially improved structures in Zones V1-30, VE, and V, and whether or not such structures contain a basement. The local administrator shall maintain a record of all such information.

4. Provide that all new construction and substantial improvements within Zones V1-30, VE, and V on the community’s FIRM, have the space below the lowest floor either free of obstruction or constructed with non-supporting breakaway walls, open wood lattice-work, or insect screening intended to collapse under wind and water loads without causing collapse, displacement, or other structural damage to the elevated portion of the building or supporting foundation system. For the purpose of this section, a breakaway wall shall have a design safe loading resistance of not less than 10 and no more than 20 pounds per square foot (either by design or when so required by local or State codes) may be permitted only if a registered professional engineer or architect certifies that the designs proposed meet the following conditions:
a. breakaway wall collapse shall result from a water load less than that which would occur during the base flood; and
b. the elevated portion of the building and supporting foundation system shall not be subject to collapse, displacement, or other structural damage due to the effects of wind and water loads acting simultaneously on all building components (structural and non-structural). Maximum wind and water loading values to be used in this determination shall each have a one percent chance of being equaled or exceeded in any given year (100 year mean recurrence interval).

5. If breakaway walls are utilized, such enclosed space shall be usable solely for parking of vehicles, building access, or storage. Such space shall not be used for human habitation.

6. Prohibit the use of fill for structural support of buildings.

7. Prohibit man-made alteration of sand dunes which would increase potential flood damage.

8. All manufactured homes to be placed or substantially improved within Zones V1-30, V, and VE on the community’s FIRM on sites i. inside of or outside of manufactured home park or subdivision; ii. or in a new manufactured home park or subdivision; iii. or in an expansion to an existing manufactured home park or subdivision; iv. or in an existing manufacture home park or subdivision on which a manufactured home has incurred “substantial damage” as the result of a flood; and v. Meets must meet the standards of this section and that manufactured homes placed or substantially improved on other sites in an existing manufactured home park or subdivision within Zones V1-30, V, and VE on the community’s FIRM meet the requirements.

9. Recreational vehicles placed or sited within Zones V1-30, V, and VE on the community’s FIRM either:
   a. Be on the site for fewer than 180 consecutive days;
   b. Be fully licensed and ready for highway use, on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions; or
   c. Meet the requirements of Sections 1 through 7 above.

SECTION 4.6.237 COORDINATION: It is hereby acknowledged that state building codes contain certain provisions that apply to the design and construction of buildings and structures located in Areas of Special Flood Hazard. Therefore, the Flood Hazard Overlay Zone is intended to be administered and enforced in conjunction with the state building codes.

If a permit applicant needs a local permit before obtaining permits from other agencies, the County may issue a permit on the condition that all applicable local permits are or will be obtained.

SECTION 4.6.239 RESTRICTIVENESS: Where the conditions imposed by a provision of the /FP zone are more restrictive or contrary to the primary zone, the provisions of the /FP zone shall govern.
5.11 NATURAL HAZARDS

Plan Implementation Strategies

2a. The areas of special flood hazard, identified by the Federal Insurance Administration in a scientific and engineering report entitled "The Flood Insurance Study for Coos County" dated September 25, 2009, March 17, 2014, with accompanying Flood Insurance Rate Maps and Flood Boundary - Floodway Maps is hereby adopted by reference and declared to be a part of the Coos County Comprehensive Plan Inventory.

ATTACHMENT A
Adoption of Flood Insurance Rate Maps by Participating Communities

FEMA 495 / September 2012
Adoption of Flood Insurance Rate Maps by Participating Communities

The National Flood Insurance Program (NFIP) was established with the passage of the National Flood Insurance Act of 1968. The NFIP is a Federal program enabling property owners in participating communities to purchase insurance as a protection against flood losses in exchange for State and community floodplain management regulations that reduce future flood damages. Over 21,000 communities participate in the Program.

This brochure addresses several questions about community adoption of the Flood Insurance Rate Map (FIRM). As a participating community in the NFIP, your community is responsible for making sure that its floodplain management regulations meet or exceed the minimum requirements of the NFIP. By law, the Department of Homeland Security's Federal Emergency Management Agency (FEMA) cannot offer flood insurance in communities that do not have regulations that meet or exceed these minimum requirements. These regulations can be found in Title 44 of the Code of Federal Regulations (44 CFR) Section 60.3. You can also find them in model ordinances developed by most States and by FEMA Regional Offices.

The basis of your community's floodplain management regulations is the flood hazard data provided to the community by FEMA. FEMA identifies flood hazards nationwide and publishes and periodically updates flood hazard data in support of the NFIP. Flood hazard data is provided to communities in the form of a FIRM and Flood Insurance Study (FIS) report, typically prepared in a countywide format. Please be aware that while an FIS report accompanies most FIRMs, it is not created for all flood studies.

The identification of flood hazards serves many important purposes. Identifying flood hazards creates an awareness of the hazard, especially for those who live and work in flood prone areas. The FIRM and FIS report provide States and communities with the information needed for land use planning and to reduce flood risk to floodplain development and implement other health and safety requirements through codes and regulations. States and communities can also use the information for emergency management.

Each time FEMA provides your community with additional flood hazard data, your community must adopt new floodplain management regulations or amend existing regulations to incorporate the new data and meet any additional requirements that result from any changes in the data, such as the designation of a regulatory floodway for the first time. Your floodplain management regulations must also meet any additional State requirements and be adopted through a process that complies with any procedural requirements established in your State for the adoption of ordinances or regulations.

Flood Study and Adoption Timeline

<table>
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<tr>
<th>Discovery Meeting Held</th>
<th>Final Community Meeting Held / Proposed Federal Register Publication</th>
<th>Preliminary FIRM and Report Issued</th>
<th>Collection Initial Comments on Preliminary FIRM and Report*</th>
<th>90-Day Appeal Period</th>
<th>Resolve Appeals and Finalize Map Products*</th>
<th>Letter of Final Determination Issued</th>
<th>Date of Effective FIRM</th>
</tr>
</thead>
</table>

*The timeframe for completing these activities may vary.

Attachment "B"
What is the process for developing new flood hazard data or revising existing data?

FEMA coordinates closely with communities to develop new flood risk data or revise existing data during the flood study process. This coordination may lead to new or updated flood hazard mapping (i.e., the update of a community’s FIRM and FIS report), flood risk assessment projects, and/or mitigation planning assistance. In general, the process includes the following activities:

- Under FEMA’s Risk MAP program, FEMA engages in a Discovery process with communities and other local stakeholders to obtain a comprehensive picture of flooding issues, flood risk, and the potential for the performance of additional flood mitigation activities, including the adoption of more restrictive floodplain management criteria by communities. Stakeholders may include, but are not limited to, local officials, citizen associations, representatives of levee boards, conservation districts, Tribal Nations, and economic development organizations. Information obtained during the Discovery meeting helps determine whether a flood risk assessment project, including new or updated flood hazard data and a corresponding FIRM and FIS report, is needed.

- Once it is determined that the creation or revision of flood hazard data, including an update to the FIRM and FIS report, is needed, FEMA works with communities and other Discovery stakeholders to determine the parameters of the project, including flooding sources and the type and extent (number of stream or coastline miles) of the study.

- The mapping process typically includes development of Base Flood Elevations (BFEs) and floodways for the project area. In addition, the mapping process includes activities such as obtaining the digital base map, developing the FIRM flood hazard database and, when appropriate, incorporating or revalidating previously issued Letters of Map Change, or LOMCs. LOMCs, which include Letters of Map Revision (LOMRs), Letters of Map Revision Based on Fill and Letters of Map Amendment, serve to officially revise the effective FIRM and FIS report without requiring the physical revision and republication of these materials.

- When the study is completed, FEMA provides the community with a preliminary FIRM and FIS report for review. In addition, FEMA may hold public meetings—often referred to as the Final Meeting and Open House—to explain and obtain comments on the preliminary FIRM and FIS report.

- FEMA provides a 90-day appeal period for all new or modified flood hazard information shown on a FIRM, including additions or modifications of any BFEs, base flood depths, Special Flood Hazard Area (SFHA) boundaries or zone designations, or regulatory floodways. SFHAs are areas subject to inundation by the base (1-percent-annual-chance) flood and include the following flood zones: A, AO, AH, A1-A30, AE, A99, AR, AR/A1-A30, AR/AE, AR/AO, AR/AH, AR/A, VO, V1-V30, VE, and V. The regulatory floodway is 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 a designated height. Before the appeal period is initiated, FEMA will publish a notice of proposed flood hazard determinations in the Federal Register and notify the community’s Chief Executive Officer of the determination. FEMA will then publish information about the flood hazard determinations at least twice in a local newspaper. The appeal period provides the community and owners or lessees of property in the community an opportunity to submit scientific or technical information if they believe the flood hazard determinations are scientifically or technically incorrect.

- Following the 90-day appeal period, FEMA resolves all appeals and finalizes all changes to the FIRM and FIS report.

- FEMA then issues a Letter of Final Determination (LFD), which establishes the final flood hazard data and the effective date of the new FIRM and FIS report for the community. The LFD also initiates the six-month adoption period during which the community must adopt or amend its floodplain management regulations to reference the new FIRM and FIS report.

- The FIRM and FIS report become effective at the end of the six-month period. The effective date is also the date when flood insurance rates will be based on the new flood data for new construction built after this date. The effective FIRM will be used by Federally insured or regulated lenders to determine if flood insurance is required as a condition of a loan.

FEMA has entered into agreements with nearly 250 communities, States, and regional agencies to be active partners in FEMA’s flood hazard mapping program under the Cooperating Technical Partners (CTP) Program. These agencies are participating with FEMA in developing and updating FIRMs. (See the box on the inside of the back cover page for a brief description of the CTP program.)
What must an NFIP participating community do when FEMA provides new or revised flood hazard data?

Each time FEMA provides a community with new or revised flood hazard data, the community must either adopt new floodplain management regulations, or amend its existing regulations to reference the new FIRM and FIS report. In some cases, communities may not have to adopt additional floodplain management requirements if a new type of flood hazard data is provided, such as a new flood zone (e.g., going from a Zone A without BFES to a Zone AE with BFES or going from a Zone AE to a Zone VE—the coastal high hazard area), or with the addition of a regulatory floodway designation.

The following guide is to help you determine whether changes need to be made in your community’s floodplain management regulations when a new or revised FIRM and FIS report are provided:

- If the community’s floodplain management regulations are compliant with the NFIP requirements when the LFD is issued, the community needs to amend only the map reference section of their floodplain management regulations to identify the new FIRM and FIS report.

- If the community has a legally valid automatic adoption clause established in the map reference section of the regulations and the community's regulations are otherwise compliant with the NFIP requirements, then the floodplain management regulations do not need to be amended. Automatic adoption clauses adopt all future revisions to the FIRM without further action by the community. However, keep in mind that the FIRM and FIS report update process outlined above still applies for communities with automatic adoption clauses. Automatic adoption clauses are not permitted in many States.

- If the community is provided a new type of flood hazard data, the community will need to either adopt new regulations or amend existing regulations to include the appropriate NFIP requirements, in addition to referencing the new FIRM and FIS report.

The LFD indicates the sections of the NFIP floodplain management requirements at 44 CFR Section 60.3 that a community must adopt based on the type of flood hazard data provided to the community.

You can contact the FEMA Regional Office or your State NFIP Coordinating Agency for assistance on the specific requirements your community will need to adopt. (See “For Assistance” on the back cover page for contact information.)

If your community has adopted higher standards than the minimum requirements of the NFIP, your community may qualify for a reduction in flood insurance premiums for your citizens under the Community Rating System (CRS). (See the box on the inside of the back cover for a brief description of the CRS.)

Attachment "B"
When must a community adopt the new or revised flood hazard data?

Your community must amend its existing floodplain management regulations or adopt new regulations before the effective date of the FIRM and FIS report, which is identified in the LFD. The LFD initiates the six-month adoption period.

Communities are encouraged to adopt the appropriate floodplain management regulations as soon as possible after the LFD is issued. The adopted regulations must be submitted to FEMA or the State and be approved by FEMA before the effective date of the FIRM and FIS report.

FEMA will send two letters notifying the community that it must have approved floodplain management regulations in place before the effective date of the FIRM. The first letter is a reminder letter and is sent to the community 90 days before the effective date. The second letter is sent to the community 30 days before the effective date of the FIRM. This letter is FEMA’s final notification that the community will be suspended from the NFIP if it does not adopt the FIRM before the effective date. Notice of the suspension is also published in the Federal Register.

If the community adopts or amends its floodplain management regulations prior to the effective date of the FIRM and FIS report and the FEMA Regional Office approves the community’s regulations, the suspension will not go into effect and the community will remain eligible for participation in the NFIP.

What happens if a community does not adopt the appropriate floodplain management regulations during the six-month adoption period?

If a community does not adopt new floodplain management regulations or amend its existing regulations before the effective date of the FIRM and FIS report, the community will be suspended from the NFIP.

The following sanctions apply if a community is suspended from the NFIP:

- Property owners will not be able to purchase NFIP flood insurance policies and existing policies will not be renewed.
- Federal grants or loans for development will not be available in identified flood hazard areas under programs administered by Federal agencies such as the Department of Housing and Urban Development, the Environmental Protection Agency, and the Small Business Administration.
- Federal disaster assistance will not be provided to repair insurable buildings located in identified flood hazard areas for damage caused by a flood.
- Federal mortgage insurance or loan guarantees will not be provided in identified flood hazard areas such as those written by the Federal Housing Administration and the Department of Veteran Affairs.
- Federally insured or regulated lending institutions, such as banks and credit unions, are allowed to

Attachment "B"
make conventional loans for insurable buildings in flood hazard areas of non-participating communities. However, the lender must notify applicants that the property is in a flood hazard area and that the property is not eligible for Federal disaster assistance. Some lenders may voluntarily choose not to make these loans.

If a community is suspended, it may regain its eligibility in the NFIP by enacting the floodplain management measures established in 44 CFR Section 60.3 of the NFIP regulations. If development takes place in your community during suspension that does not meet the minimum NFIP requirements, your community will be asked to take actions to reduce the increased flood hazard prior to reinstatement.

Digital Flood Hazard Information Resources

In accordance with the Flood Insurance Reform Act of 2004, FEMA has implemented a policy that allows the use of digital data for official NFIP purposes. All FEMA's flood mapping products are now prepared digitally, and a number of different digital options are available to view the flood hazard information shown on community FIRMs. All digital flood hazard resources referenced below can be accessed through FEMA's Map Service Center (MSC) at http://msc.fema.gov.

- Once effective, copies of the FIRM panels in digital format will be provided to your community and will also be available through the MSC. Note that Letters of Map Change (LOMCs) are also available through the MSC in .pdf format.

- FIRMettes show a desired section of a FIRM panel specified by a user, plus map scale, and other legend information from the FIRM. FIRMettes can be created online through the MSC, and printed or saved in .pdf format at no cost.

- The FIRM database is designed for use with specialized Geographic Information System (GIS) software. Users are able to integrate local data sets with the FEMA flood hazard data in the FIRM database to assist with floodplain management or mitigation planning measures. The FIRM database is provided to your community once the FIRM becomes effective and is also available for download through the MSC.

- The National Flood Hazard Layer (NFHL) contains all effective digital flood hazard information from FIRM databases and LOMRs produced by FEMA in one integrated nationwide dataset. It also contains point locations of other LOMCs, such as Letters of Map Revision Based on Fill and Letters of Map Amendment. The NFHL is available for viewing through FEMA's online map viewer which can be accessed through the MSC. The NFHL can also be viewed as a layer in Google Earth or accessed via Web Map Service (WMS), a web-based method of viewing map information using commercial GIS software, such as ESRI's ArcGIS. Additional information on these services is available through the MSC.

Note for communities that do not yet have digitally produced FIRMs: scanned digital versions of the paper FIRM panels are available through the MSC. However, since the FIRMs were not produced digitally, a FIRM database will not be available and the flood hazard information shown on the FIRMs will not be included in the NFHL.

Attachment "B"
Becoming a Cooperating Technical Partner

FEMA established the Cooperating Technical Partner (CTP) program to increase local involvement in, and ownership of, the flood study process and the flood hazard data developed as part of that process. This program enables communities, and regional and State agencies that have the interest, capabilities, and resources to be active partners in FEMA’s flood hazard mapping program.

One of the major objectives of the CTP program is to recognize States, regional agencies, and communities with proactive floodplain management programs that include identifying the flood risk and getting the information incorporated into official FEMA flood hazard data. The CTP Program maintains national standards consistent with the NFIP Regulations. The following are some of the benefits of being a CTP:

- CTPs are given an opportunity to develop more detailed maps by making local geospatial data a part of the FIRM
- CTPs receive support such as access to existing data, access to custom-made FEMA tools, technical assistance, and national recognition
- CTPs receive mentoring support, online examples of “best practices,” and free training
- Communities that participate in the Community Rating System (CRS) that also become CTPs or are in an area covered by a regional or State CTP may be eligible to receive CRS credit for CTP activities

Another major objective and benefit of the CTP Program is the ability to leverage available funding and local data to make the most of limited resources. Communities, States, and regional agencies can take advantage of these benefits by entering into an agreement with FEMA that formalizes the types of mapping activities and support the CTP will provide. Nearly 250 communities, States, and regional agencies are currently participating in the CTP Program.

To learn more about becoming a CTP, visit www.fema.gov/plan/prevent/fhm/ctp_main.shtm or contact your FEMA regional office (see back page for contact information)

Becoming an NFIP Community Rating System Community

The NFIP Community Rating System (CRS) recognizes community floodplain management practices that exceed the minimum requirements of the NFIP. CRS recognizes these efforts by reducing the cost of flood insurance premiums from 5 percent to 45 percent for flood insurance policies in communities that participate in the CRS.

Many communities may already be doing activities that would earn credit under the CRS which would reduce flood insurance premiums for their citizens. Here are a few examples:

- Adopting and enforcing more protective building standards that result in safer new construction
- Informing the public about flood hazards and flood insurance and how to reduce flood damage
- Preserving open space in the floodplain

To receive CRS credit, a community must submit a CRS application to FEMA which identifies floodplain management practices being implemented by the community. FEMA can help with the application. After FEMA reviews and verifies the application, the flood insurance premium discounts will go into effect. The amount of flood insurance policy premium discount depends on the number of CRS-credited activities a community performs.

Community participation in the CRS has many benefits:

- Discounts for flood insurance premiums from 5 percent to 45 percent
- Enhanced public safety
- Reduced flood damage
- Increased environmental protection
- Informed community residents supporting improved flood protection measures that will make communities safer from flood risks.

To learn more about CRS, visit www.fema.gov/business/nfip/crs.shtm or call 317-848-2898

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For Assistance

If your community needs assistance in adopting the FIRM, you may contact the FEMA Regional Offices listed below. You may also contact your State Coordinating Agency for the NFIP. Additional information is available at www.fema.gov/rm-main/regional-contact-information.

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<td>Federal Regional Center</td>
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<tr>
<td>Boston, MA 02110</td>
<td>800 North Loop 288</td>
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<tr>
<td>617-956-7506</td>
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<td>3003 Chamblee-Tucker Road</td>
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<tr>
<td>Atlanta, GA 30341</td>
<td>Oakland, CA 94607</td>
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<tr>
<td>Chicago, IL 60605</td>
<td>130 228th Street SW</td>
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<tr>
<td>312-408-5500</td>
<td>Bothell, WA 98021-8627</td>
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<td></td>
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September 17, 2013

John Sweet
Chair, County Commissioners
250 North Baxter Street
Coquille, Oregon 97423

Dear Mr. Sweet:

This is to formally notify you of the final flood hazard determination for the Unincorporated Areas of Coos County, Oregon, in compliance with Title 44, Chapter I, Part 67, Section 67.11, Code of Federal Regulations (CFR). This section requires that notice of final flood hazards shall be sent to the Chief Executive Officer of the community, all individual appellants, and the State Coordinating Agency, and shall be published in the Federal Register.

On September 25, 2009, the Department of Homeland Security’s Federal Emergency Management Agency (FEMA) issued a Flood Insurance Rate Map (FIRM) that identified the Special Flood Hazard Areas (SFHAs), the areas subject to inundation by the base (1-percent-annual-chance) flood, in your community. Recently, FEMA completed a re-evaluation of flood hazards in your community. On April 29, 2011, FEMA provided you with Preliminary copies of the Flood Insurance Study (FIS) report and FIRM that identify existing flood hazards in your community, including Base Flood Elevations (BFEs). The proposed flood hazard determinations (FHDs) for your community were published in The World on February 28, 2013 and March 7, 2013, and in the Federal Register, at Part 67, Volume 77, Number 249, Page 76502, on December 28, 2012.

The statutory 90-day appeal period, which was initiated on the second newspaper publication date cited above, has ended. FEMA did not receive any appeals of the proposed FHDs during that time. Accordingly, the FHDs for your community are considered final. The final rule for FHDs will be published in the Federal Register as soon as possible. The FIRM for your community will become effective on March 17, 2014. Before the effective date, FEMA will send you final printed copies of the FIS report and FIRM.

Because the FIS report establishing the FHDs for your community has been completed, certain additional requirements must be met under Section 1361 of the National Flood Insurance Act of 1968, as amended, within 6 months from the date of this letter. Prior to March 17, 2014, your community is required, as a condition of continued eligibility in the National Flood Insurance Program (NFIP), to adopt or show evidence of adoption of floodplain management regulations that meet the standards of Paragraph 60.3(d and e) of the NFIP regulations (44 CFR 59, etc.) by the effective date of the FIRM. These standards are the minimum requirements and do not supersede any State or local requirements of a more stringent nature.

It must be emphasized that all the standards specified in Paragraph 60.3(d and e) of the NFIP regulations must be enacted in a legally enforceable document. This includes adoption of the current effective FIS

Attachment "B"
report and FIRM to which the regulations apply and other modifications made by this map revision. Some of the standards should already have been enacted by your community in order to establish initial eligibility in the NFIP. Your community can meet any additional requirements by taking one of the following actions:

1. Amending existing regulations to incorporate any additional requirements of Paragraph 60.3(d and e);

3. Adopting all the standards of Paragraph 60.3(d and e) into one new, comprehensive set of regulations; or

4. Showing evidence that regulations have previously been adopted that meet or exceed the minimum requirements of Paragraph 60.3(d and e).

Communities that fail to enact the necessary floodplain management regulations will be suspended from participation in the NFIP and subject to the prohibitions contained in Section 202(a) of the Flood Disaster Protection Act of 1973 (Public Law 93-234) as amended.

In addition to your community using the FIS report and FIRM to manage development in the floodplain, FEMA will use the FIS report and FIRM to establish appropriate flood insurance rates. On the effective date of the revised FIRM, actuarial rates for flood insurance will be charged for all new structures and substantial improvements to existing structures located in the identified SFHAs. These rates may be higher if structures are not built in compliance with the floodplain management standards of the NFIP. The actuarial flood insurance rates increase as the lowest elevations (including basement) of new structures decrease in relation to the BFEs established for your community. This is an important consideration for new construction because building at a higher elevation can greatly reduce the cost of flood insurance.

To assist your community in maintaining the FIRM, we have enclosed a Summary of Map Actions to document previous Letter of Map Change (LOMC) actions (i.e., Letters of Map Amendment (LOMAs), Letters of Map Revision (LOMRs)) that will be superseded when the revised FIRM panels referenced above become effective. Information on LOMCs is presented in the following four categories: (1) LOMCs for which results have been included on the revised FIRM panels; (2) LOMCs for which results could not be shown on the revised FIRM panels because of scale limitations or because the LOMC issued had determined that the lots or structures involved were outside the SFHA as shown on the FIRM; (3) LOMCs for which results have not been included on the revised FIRM panels because the flood hazard information on which the original determinations were based are being superseded by new flood hazard information; and (4) LOMCs issued for multiple lots or structures where the determination for one or more of the lots or structures cannot be revalidated through an administrative process like the LOMCs in Category 2 above. LOMCs in Category 2 will be revalidated through a single letter that reaffirms the validity of a previously issued LOMC; the letter will be sent to your community shortly before the effective date of the revised FIRM and will become effective 1 day after the revised FIRM becomes effective. For the LOMCs listed in Category 4, we will review the data previously submitted for the LOMA or LOMR request and issue a new determination for the affected properties after the revised FIRM becomes effective.

The FIRM panels have been computer-generated. Once the FIRM and FIS report are printed and distributed, the digital files containing the flood hazard data for the entire county can be provided to your community for use in a computer mapping system. These files can be used in conjunction with other thematic data for floodplain management purposes, insurance purchase and rating requirements, and many other planning applications. Copies of the digital files or paper copies of the FIRM panels may be

Attachment "B"
obtained by calling our FEMA Map Information eXchange (FMIX), toll free, at 1-877-FEMA MAP (1-877-336-2627). In addition, your community may be eligible for additional credits under our Community Rating System if you implement your activities using digital mapping files.

If your community is encountering difficulties in enacting the necessary floodplain management measures required to continue participation in the NFIP, we urge you to call the Director, Federal Insurance and Mitigation Division of FEMA in Bothell, Washington, at (425) 487-4600 for assistance. If you have any questions concerning mapping issues in general or the enclosed Summary of Map Actions, please call our FMIX at the toll free number shown above. Additional information and resources your community may find helpful regarding the NFIP and floodplain management, such as The National Flood Insurance Program Code of Federal Regulations, Answers to Questions About the National Flood Insurance Program, Frequently Asked Questions Regarding the Effects that Revised Flood Hazards have on Existing Structures, Use of Flood Insurance Study (FIS) Data as Available Data, and National Flood Insurance Program Elevation Certificate and Instructions, can be found on our website at http://www.floodmaps.fema.gov/lfd. Paper copies of these documents may also be obtained by calling FMIX.

Sincerely,

[Signature]

Luis Rodriguez, P.E., Chief
Engineering Management Branch
Federal Insurance and Mitigation Administration

Enclosure:
Final Summary of Map Actions

cc: Community Map Repository
Jill Rolfe, Planning Director, Coos County

Attachment "B"
Community: COOS COUNTY

To assist your community in maintaining the Flood Insurance Rate Map (FIRM), we have summarized below the previously issued Letter of Map Change (LOMC) actions (i.e., Letters of Map Revision (LOMRs) and Letters of Map Amendment (LOMAs)) that will be affected when the revised FIRM becomes effective on March 17, 2014.

1. LOMCs Incorporated

The modifications effected by the LOMCs listed below will be reflected on the revised FIRM. In addition, these LOMCs will remain in effect until the revised FIRM becomes effective.

<table>
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2. LOMCs Not Incorporated

The modifications effected by the LOMCs listed below will not be reflected on the revised FIRM panels because of scale limitations or because the LOMC issued had determined that the lot(s) or structure(s) involved were outside the Special Flood Hazard Area, as shown on the FIRM. These LOMCs will remain in effect until the revised FIRM becomes effective. These LOMCs will be revalidated free of charge 1 day after the revised FIRM becomes effective through a single revalidation letter that reaffirms the validity of the previous LOMCs.

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Attachment "B"
# FINAL SUMMARY OF MAP ACTIONS

**Community:** COOS COUNTY  
**Community No:** 410042

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Attachment "B"
# FINAL SUMMARY OF MAP ACTIONS

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Attachment "B"
### FINAL SUMMARY OF MAP ACTIONS

- **Community:** COOS COUNTY  
- **Community No:** 410042

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**Attachment "B"**
# FINAL SUMMARY OF MAP ACTIONS

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Attachment "B"

9/17/2013
## FINAL SUMMARY OF MAP ACTIONS

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<th>LOMC</th>
<th>Case No.</th>
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Attachment "B"
# FINAL SUMMARY OF MAP ACTIONS

## Community: COOS COUNTY

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<th>LOMC</th>
<th>Case No.</th>
<th>Date Issued</th>
<th>Project Identifier</th>
<th>Old Panel</th>
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## 3. LOMCs Superseded

The modifications effected by the LOMCs listed below have not been reflected on the Final revised FIRM panels because they are being superseded by new detailed flood hazard information or the information available was not sufficient to make a determination. The reason each is being superseded is noted below. These LOMCs will no longer be in effect when the revised FIRM becomes effective.

<table>
<thead>
<tr>
<th>LOMC</th>
<th>Case No.</th>
<th>Date Issued</th>
<th>Project Identifier</th>
<th>Reason Determination Will be Superseded</th>
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Attachment "B"
FINAL SUMMARY OF MAP ACTIONS

Community: COOS COUNTY

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<th>Reason Determination Will be Superseded</th>
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1. Insufficient information available to make a determination.
2. Lowest Adjacent Grade and Lowest Finished Floor are below the proposed Base Flood Elevation.
3. Lowest Ground Elevation is below the proposed Base Flood Elevation.
4. Revised hydrologic and hydraulic analyses.
5. Revised topographic information.

4. LOMCs To Be Redetermined

The LOMCs in Category 2 above will be revalidated through a single revalidation letter that reaffirms the validity of the determination in the previously issued LOMC. For LOMCs issued for multiple lots or structures where the determination for one or more of the lots or structures has changed, the LOMC cannot be revalidated through this administrative process. Therefore, we will review the data previously submitted for the LOMC requests listed below and issue a new determination for the affected properties after the effective date of the revised FIRM.

<table>
<thead>
<tr>
<th>LOMC</th>
<th>Case No.</th>
<th>Date Issued</th>
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Attachment "B"
JAN 31 2014
CERTIFIED MAIL
RETURN RECEIPT REQUESTED

John Sweet
Chairperson, County Commissioners
Coos County
250 North Baxter Street
Coquille, Oregon 97423

Dear Mr. Sweet:

I am writing this letter as an official reminder that Coos County, Oregon, has until March 17, 2014, to adopt and have the Department of Homeland Security’s Federal Emergency Management Agency (FEMA) Regional Office approve floodplain management measures that satisfy 44 Code of Federal Regulations (CFR) Section 60.3(d) and (e) of the National Flood Insurance Program (NFIP) regulations.

Coos County must adopt floodplain management measures, such as a floodplain management ordinance, that meet or exceed the minimum NFIP requirements (copy enclosed) by March 17, 2014, to avoid suspension from the NFIP. If suspended, your community becomes ineligible for flood insurance through the NFIP, new insurance policies cannot be sold, and existing policies cannot be renewed.

Under the Flood Disaster Protection Act of 1973, as amended, flood insurance must be purchased by property owners seeking any Federal financial assistance for construction or acquisition of buildings in Special Flood Hazard Areas (SFHAs). This financial assistance includes certain federally guaranteed mortgages and direct loans, federal disaster relief loans and grants, as well as other similarly described assistance from FEMA and other agencies.

In addition, all loans individuals obtain from Federally regulated, supervised, or insured lending institutions that are secured by improved real estate located in SFHAs are also contingent upon the borrower obtaining flood insurance coverage on the building. However, purchasing and maintaining flood insurance coverage on a voluntary basis is frequently recommended for properties located outside SFHAs.

Your NFIP State Coordinator and FEMA would like to assist Coos County to ensure it remains in good standing with the NFIP and avoids suspension from the Program. If your community is suspended, it may regain its eligibility in the NFIP by enacting the floodplain management measures established in 44 CFR Section 60.3 of the NFIP regulations. As stated in my previous correspondence, I recommend you contact your NFIP State Coordinator or the FEMA Regional Office if Coos County is encountering difficulties in enacting its measures.

Attachment "B" www.fema.gov
I recognize that your community may be in the final adoption process or may have recently adopted the appropriate floodplain management measures. Please submit these measures to the Floodplain Management Program at the Oregon Department of Land Conservation and Development. Christine Shirley, CFM, the NFIP State Coordinator, is accessible by telephone at (503) 373-0050, extension 250, in writing at 635 Capitol Street, Northeast, Suite 150, Salem, Oregon 97301-2540, or by electronic mail at christine.shirley@state.or.us.

The FEMA Regional staff in Bothell, Washington, is also available to assist you with your floodplain management measures. The FEMA Regional Office may be contacted by telephone at (425) 487-4600 or in writing. Please send your written inquiries to the Director, Federal Insurance and Mitigation Division, FEMA Region X, at 130-228th Street, Southwest, Bothell, Washington 98021-8627.

In the event your community does not adopt and/or submit the necessary floodplain management measures that meet or exceed the minimum NFIP requirements, I must take the necessary steps to suspend your community from the NFIP. This letter is FEMA’s final notification before your community is suspended from the Program.

Sincerely,

[Signature]

David H. Stearrett, CFM, Chief
Floodplain Management Branch
Federal Insurance and Mitigation Administration

Enclosure

cc: Kenneth Murphy, Regional Administrator, FEMA Region X
    Christine Shirley, CFM, NFIP State Coordinator, Oregon Department of Land Conservation and Development
    Jill Rolfe, Planning Director, Coos County

Attachment "B"
§ 60.3 Flood plain management criteria for flood-prone areas.

The Federal Insurance Administrator will provide the data upon which flood plain management regulations shall be based. If the Federal Insurance Administrator has not provided sufficient data to furnish a basis for these regulations in a particular community, the community shall obtain, review and reasonably utilize data available from other Federal, State or other sources pending receipt of data from the Federal Insurance Administrator. However, when special flood hazard area designations and water surface elevations have been furnished by the Federal Insurance Administrator, they shall apply. The symbols defining such special flood hazard designations are set forth in §64.3 of this subchapter. In all cases the minimum requirements governing the adequacy of the flood plain management regulations for flood-prone areas adopted by a particular community depend on the amount of technical data formally provided to the community by the Federal Insurance Administrator. Minimum standards for communities are as follows:

(a) When the Federal Insurance Administrator has not defined the special flood hazard areas within a community, has not provided water surface elevation data, and has not provided sufficient data to identify the floodway or coastal high hazard area, but the community has indicated the presence of such hazards by submitting an application to participate in the Program, the community shall:

1. Require permits for all proposed construction or other development in the community, including the placement of manufactured homes, so that it may determine whether such construction or other development is proposed within flood-prone areas;

2. Review proposed development to assure that all necessary permits have been received from those governmental agencies from which approval is required by Federal or State law, including section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334;

3. Review all permit applications to determine whether proposed building sites will be reasonably safe from flooding. If a proposed building site is in a flood-prone area, all new construction and substantial improvements shall (i) be designed (or modified) and adequately anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy, (ii) be constructed with materials resistant to flood damage, (iii) be constructed by methods and practices that minimize flood damages, and (iv) be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

4. Review subdivision proposals and other proposed new development, including manufactured home parks or subdivisions, to determine whether such proposals will be reasonably safe from flooding. If a subdivision proposal or other proposed new development is in a flood-prone area, any such proposals shall be reviewed to assure that (i) all such proposals are consistent with the need to minimize flood damage within the flood-prone area, (ii) all public utilities and facilities, such as sewer, gas, electrical, and water systems are located and constructed to minimize or eliminate flood damage, and (iii) adequate drainage is provided to reduce exposure to flood hazards;

5. Require within flood-prone areas new and replacement water supply systems to be designed to minimize or eliminate infiltration of flood waters into the systems; and

6. Require within flood-prone areas (i) new and replacement sanitary sewage systems to be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters and (ii) onsite waste disposal systems to be located to avoid impairment to them or contamination from them during flooding.

(b) When the Federal Insurance Administrator has designated areas of special flood hazards (A zones) by the publication of a community's FHM or FIRM, but has neither produced water surface elevation data nor identified a floodway or coastal high hazard area, the community shall:

1. Require permits for all proposed construction and other developments including the placement of manufactured homes, within Zone A on the community's FHM or FIRM;

2. Require the application of the standards in paragraphs (a) (2), (3), (4), (5) and (6) of this section to development within Zone A on the community's FHM or FIRM;

Attachment "B"
(3) Require that all new subdivision proposals and other proposed developments (including proposals for manufactured home parks and subdivisions) greater than 50 lots or 5 acres, whichever is the lesser, include within such proposals base flood elevation data;

(4) Obtain, review and reasonably utilize any base flood elevation and floodway data available from a Federal, State, or other source, including data developed pursuant to paragraph (b)(3) of this section, as criteria for requiring that new construction, substantial improvements, or other development in Zone A on the community's FHBM or FIRM meet the standards in paragraphs (c)(2), (c)(3), (c)(5), (c)(6), (c)(12), (c)(14), (d)(2) and (d)(3) of this section;

(5) Where base flood elevation data are utilized, within Zone A on the community's FHBM or FIRM:

(i) Obtain the elevation (in relation to mean sea level) of the lowest floor (including basement) of all new and substantially improved structures, and

(ii) Obtain, if the structure has been floodproofed in accordance with paragraph (c)(3)(ii) of this section, the elevation (in relation to mean sea level) to which the structure was floodproofed, and

(iii) Maintain a record of all such information with the official designated by the community under §59.22 (a)(9)(iii);

(6) Notify, in riverine situations, adjacent communities and the State Coordinating Office prior to any alteration or relocation of a watercourse, and submit copies of such notifications to the Federal Insurance Administrator;

(7) Assure that the flood carrying capacity within the altered or relocated portion of any watercourse is maintained;

(8) Require that all manufactured homes to be placed within Zone A on a community's FHBM or FIRM shall be installed using methods and practices which minimize flood damage. For the purposes of this requirement, manufactured homes must be elevated and anchored to resist flotation, collapse, or lateral movement. Methods of anchoring may include, but are not to be limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable State and local anchoring requirements for resisting wind forces.

(c) The Federal Insurance Administrator has provided a notice of final flood elevations for one or more special flood hazard areas on the community's FIRM and, if appropriate, has designated other special flood hazard areas without base flood elevations on the community's FIRM, but has not identified a regulatory floodway or coastal high hazard area, the community shall:

(1) Require the standards of paragraph (b) of this section within all A1–30 zones, AE zones, A zones, AH zones, and AO zones, on the community's FIRM;

(2) Require that all new construction and substantial improvements of residential structures within Zones A1–30, AE and AH zones on the community's FIRM have the lowest floor (including basement) elevated to or above the base flood level, unless the community is granted an exception by the Federal Insurance Administrator for the allowance of basements in accordance with §60.6 (b) or (c);

(3) Require that all new construction and substantial improvements of non-residential structures within Zones A1–30, AE and AH zones on the community's FIRM, (i) have the lowest floor (including basement) elevated to or above the base flood level or, (ii) together with attendant utility and sanitary facilities, be designed so that below the base flood level the structure 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;

(4) Provide that where a non-residential structure is intended to be made watertight below the base flood level, (i) a registered professional engineer or architect shall develop and/or review structural design, specifications, and plans for the construction, and shall certify that the design and methods of construction are in accordance with accepted standards of practice for meeting the applicable provisions of paragraph (c)(3)(ii) or (c)(8)(ii) of this section, and (ii) a record of such certificates which includes the specific elevation (in relation to mean sea level) to which such structures are floodproofed shall be maintained with the official designated by the community under §59.22(a)(9)(iii);

(5) Require, for all new construction and substantial improvements, that fully enclosed areas below the lowest floor that are usable solely for parking of vehicles, building access or storage in an area other than a basement and which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria: 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


Attachment "B"
flooding shall be provided. The bottom of all openings shall be no higher than one foot above grade. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

(6) Require that manufactured homes that are placed or substantially improved within Zones A1–30, AH, and AE on the community's FIRM on sites

(i) Outside of a manufactured home park or subdivision,

(ii) In a new manufactured home park or subdivision,

(iii) In an expansion to an existing manufactured home park or subdivision, or

(iv) In an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as the result of a flood, be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated to or above the base flood elevation and be securely anchored to an adequately anchored foundation system to resist floatation collapse and lateral movement.

(7) Require within any AO zone on the community's FIRM that all new construction and substantial improvements of residential structures have the lowest floor (including basement) elevated above the highest adjacent grade at least as high as the depth number specified in feet on the community's FIRM (at least two feet if no depth number is specified);

(8) Require within any AO zone on the community's FIRM that all new construction and substantial improvements of nonresidential structures (i) have the lowest floor (including basement) elevated above the highest adjacent grade at least as high as the depth number specified in feet on the community's FIRM (at least two feet if no depth number is specified), or (ii) together with attendant utility and sanitary facilities be completely floodproofed to that level to meet the floodproofing standard specified in §60.3(e)(3)(ii);

(9) Require within any A99 zones on a community's FIRM the standards of paragraphs (a)(1) through (a)(4)(i) and (b)(5) through (b)(9) of this section;

(10) Require until a regulatory floodway is designated, that no new construction, substantial improvements, or other development (including fill) shall be permitted within Zones A1–30 and AE on the community's FIRM, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community.

(11) Require within Zones AH and AO, adequate drainage paths around structures on slopes, to guide floodwaters around and away from proposed structures.

(12) Require that manufactured homes to be placed or substantially improved on sites in an existing manufactured home park or subdivision within Zones A–1–30, AH, and AE on the community's FIRM that are not subject to the provisions of paragraph (c)(6) of this section be elevated so that either

(i) The lowest floor of the manufactured home is at or above the base flood elevation, or

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

(13) Notwithstanding any other provisions of §60.3, a community may approve certain development in Zones A1–30, AE, and AH, on the community's FIRM which increase the water surface elevation of the base flood by more than one foot, provided that the community first applies for a conditional FIRM revision, fulfills the requirements for such a revision as established under the provisions of §65.12, and receives the approval of the Federal Insurance Administrator.

(14) Require that recreational vehicles placed on sites within Zones A1–30, AH, and AE on the community's FIRM either

(i) Be on the site for fewer than 180 consecutive days,

(ii) Be fully licensed and ready for highway use, or


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(iii) Meet the permit requirements of paragraph (b)(1) of this section and the elevation and anchoring requirements for “manufactured homes” in paragraph (c)(6) of this section.

A recreational vehicle is ready for highway use if it is 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.

(d) When the Federal Insurance Administrator has provided a notice of final base flood elevations within Zones A1–30 and/or AE on the community’s FIRM and, if appropriate, has designated AO zones, AH zones, A99 zones, and A zones on the community’s FIRM, and has provided data from which the community shall designate its regulatory floodway, the community shall:

1. Meet the requirements of paragraphs (c)(1) through (14) of this section;

2. Select and adopt a regulatory floodway based on the principle that the area chosen for the regulatory floodway must be designed to carry the waters of the base flood, without increasing the water surface elevation of that flood more than one foot at any point;

3. Prohibit encroachments, including fill, new construction, substantial improvements, and other development within the adopted regulatory floodway unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels within the community during the occurrence of the base flood discharge;

4. Notwithstanding any other provisions of §60.3, a community may permit encroachments within the adopted regulatory floodway that would result in an increase in base flood elevations, provided that the community first applies for a conditional FIRM and floodway revision, fulfills the requirements for such revisions as established under the provisions of §65.12, and receives the approval of the Federal Insurance Administrator.

(e) When the Federal Insurance Administrator has provided a notice of final base flood elevations within Zones A1–30 and/or AE on the community’s FIRM and, if appropriate, has designated AH zones, AO zones, A99 zones, and A zones on the community’s FIRM, and has identified on the community’s FIRM coastal high hazard areas by designating Zones V1–30, VE, and/or V, the community shall:

1. Meet the requirements of paragraphs (c)(1) through (14) of this section;

2. Within Zones V1–30, VE, and V on a community’s FIRM, (i) obtain the elevation (in relation to mean sea level) of the bottom of the lowest structural member of the lowest floor (excluding pilings and columns) of all new and substantially improved structures, and whether or not such structures contain a basement, and (ii) maintain a record of all such information with the official designated by the community under §59.22(a)(9)(iii);

3. Provide that all new construction within Zones V1–30, VE, and V on the community’s FIRM is located landward of the reach of mean high tide;

4. Provide that all new construction and substantial improvements in Zones V1–30 and VE, and also Zone V if base flood elevation data is available, on the community’s FIRM, are elevated on pilings and columns so that (i) the bottom of the lowest horizontal structural member of the lowest floor (excluding the pilings or columns) is elevated to or above the base flood level; and (ii) the pile or column foundation and structure attached thereto is anchored to resist flotation, collapse and lateral movement due to the effects of wind and water loads acting simultaneously on all building components. Water loading values used shall be those associated with the base flood. Wind loading values used shall be those required by applicable State or local building standards. A registered professional engineer or architect shall develop or review the structural design, specifications and plans for the construction, and shall certify that the design and methods of construction to be used are in accordance with accepted standards of practice for meeting the provisions of paragraphs (c)(4) (i) and (ii) of this section.

5. Provide that all new construction and substantial improvements within Zones V1–30, VE, and V on the community’s FIRM have the space below the lowest floor either free of obstruction or constructed with non-supporting breakaway walls, open wood lattice-work, or insect screening intended to collapse under wind and water loads without causing collapse, displacement, or other structural damage to the elevated portion of the building or supporting foundation system. For the purposes of this section, a breakaway wall shall have a design safe loading resistance of not less than 10 and no more than 20 pounds per square foot. Use of breakaway walls which exceed a design safe loading resistance of 20 pounds per square foot (either by design or when so required by local or State

codes) may be permitted only if a registered professional engineer or architect certifies that the designs proposed meet the following conditions:

(i) Breakaway wall collapse shall result from a water load less than that which would occur during the base flood; and,

(ii) The elevated portion of the building and supporting foundation system shall not be subject to collapse, displacement, or other structural damage due to the effects of wind and water loads acting simultaneously on all building components (structural and non-structural). Water loading values used shall be those associated with the base flood. Wind loading values used shall be those required by applicable State or local building standards.

Such enclosed space shall be useable solely for parking of vehicles, building access, or storage.

(6) Prohibit the use of fill for structural support of buildings within Zones V1–30, VE, and V on the community's FIRM;

(7) Prohibit man-made alteration of sand dunes and mangrove stands within Zones V1–30, VE, and V on the community's FIRM which would increase potential flood damage.

(8) Require that manufactured homes placed or substantially improved within Zones V1–30, V, and VE on the community's FIRM on sites

(i) Outside of a manufactured home park or subdivision,

(ii) In a new manufactured home park or subdivision,

(iii) In an expansion to an existing manufactured home park or subdivision, or

(iv) In an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as the result of a flood, meet the standards of paragraphs (e)(2) through (7) of this section and that manufactured homes placed or substantially improved on other sites in an existing manufactured home park or subdivision within Zones VI–30, V, and VE on the community's FIRM meet the requirements of paragraph (c)(12) of this section.

(9) Require that recreational vehicles placed on sites within Zones V1–30, V, and VE on the community's FIRM either

(i) Be on the site for fewer than 180 consecutive days,

(ii) Be fully licensed and ready for highway use, or

(iii) Meet the requirements in paragraphs (b)(1) and (e)(2) through (7) of this section.

A recreational vehicle is ready for highway use if it is 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.

(f) When the Federal Insurance Administrator has provided a notice of final base flood elevations within Zones A1–30 or AE on the community's FIRM, and, if appropriate, has designated AH zones, AO zones, A99 zones, and A zones on the community's FIRM, and has identified flood protection restoration areas by designating Zones AR, AR/A1–30, AR/AE, AR/AH, AR/AO, or AR/A, the community shall:

(1) Meet the requirements of paragraphs (c)(1) through (14) and (d)(1) through (4) of this section.

(2) Adopt the official map or legal description of those areas within Zones AR, AR/A1–30, AR/AE, AR/AH, AR/A, or AR/AO that are designated developed areas as defined in §59.1 in accordance with the eligibility procedures under §65.14.

(3) For all new construction of structures in areas within Zone AR that are designated as developed areas and in other areas within Zone AR where the AR flood depth is 5 feet or less:

(i) Determine the lower of either the AR base flood elevation or the elevation that is 3 feet above highest adjacent grade; and

(ii) Using this elevation, require the standards of paragraphs (c)(1) through (14) of this section.

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(4) For all new construction of structures in those areas within Zone AR that are not designated as developed areas where the AR flood depth is greater than 5 feet:
  (i) Determine the AR base flood elevation; and
  (ii) Using that elevation require the standards of paragraphs (c)(1) through (14) of this section.

(5) For all new construction of structures in areas within Zone AR/A1–30, AR/AE, AR/AH, AR/AO, and AR/A:
  (i) Determine the applicable elevation for Zone AR from paragraphs (a)(3) and (4) of this section;
  (ii) Determine the base flood elevation or flood depth for the underlying A1–30, AE, AH, AO and A Zone; and
  (iii) Using the higher elevation from paragraphs (a)(5)(i) and (ii) of this section require the standards of paragraphs (c)(1) through (14) of this section.

(6) For all substantial improvements to existing construction within Zones AR/A1–30, AR/AE, AR/AH, AR/AO, and AR/A:
  (i) Determine the A1–30 or AE, AH, AO, or A Zone base flood elevation; and
  (ii) Using this elevation apply the requirements of paragraphs (c)(1) through (14) of this section.

(7) Notify the permit applicant that the area has been designated as an AR, AR/A1–30, AR/AE, AR/AH, AR/AO, or AR/A Zone and whether the structure will be elevated or protected to or above the AR base flood elevation.


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