**INSTRUCTIONS AND NOTES *for the***

**Model Code-Companion Floodplain Management Ordinance For Communities with Flood Zone A and Flood Zone V.**

***August 2020***

***Note:*** *This version of the model ordinance includes flood hazard areas (riverine/inland and coastal SFHAs shown on FIRMs as zones that start with the “A”) and coastal high hazard areas (zones that start with letter” V”). It does not include any “higher standards” (see note below).*

***Note:*** *This model should not be used if the community will adopt the optional CCR Title 24, Part 2 Appendix G Flood-Resistant Construction. Instead, use the model <Zones A-V-Appx G>. Please be aware that communities that rely on Appendix G must re-adopt the appendix every three years when the building code is updated.*

***Please download the Model Code-Companion Ordinance that goes with these Instructions and Notes, also dated August, 2020.***

The California Building Standards Codes (CCR Title 24) include flood provisions that are in the model International Codes® that form the basis of the codes. The Federal Emergency Management Agency considers the flood provisions of the International Codes (2015 and later editions) to be the minimum standards for hazard resistance and the flood provisions of those editions meet or exceed the NFIP requirements. Therefore, communities may rely on the flood provisions of the CCR Title 24 to fulfill NFIP requirements for buildings in flood hazard areas. Excerpts of the flood provisions of the CCR Title 24 are available at <https://www.water.ca.gov/nfip/>.

Changes to local floodplain management regulations are appropriate to properly coordinate with the CCR Title 24. Retaining requirements for buildings in local floodplain management regulations can lead to conflicts with the CCR Title 24 and creates a burden to resolve differences. The Model Ordinance that is coordinated with the CCR Title 24 and satisfies the requirements of the National Flood Insurance Program (NFIP) was developed by DWR and approved by FEMA Region IX on April 6, 2020. The Model Ordinance is designed to repeal and replace existing floodplain management regulations. A crosswalk that demonstrates the Model Ordinance is consistent with the NFIP is posted at <https://www.water.ca.gov/nfip/>.

***Please make any and all changes using <track changes> to facilitate review by DWR or FEMA NFIP Staff. We recommend resolving all text changes and obtaining that review before renumbering to be consistent with your community’s Code of Ordinances.***

***Contact DWR or FEMA NFIP staff for Technical Support: Email for help and submit drafts to*** [***DWR\_NFIP@water.ca.gov***](mailto:DWR_NFIP@water.ca.gov) ***or*** [***FEMA-NFIP-R9@fema.dhs.gov***](mailto:FEMA-NFIP-R9@fema.dhs.gov) ***(put community name in subject line). Please allow plenty of time for at least two reviews – at a minimum provide the first draft at least 8 weeks before you submit it for first reading by council/commission. At any given time we have many draft ordinances under review and cannot guarantee fast turn-around.***

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| *NOTE: This model ordinance is specifically written as a companion to CCR Title 24, the California Building Standards Codes, which have requirements for buildings in flood hazard areas.* ***DO NOT*** *copy from your existing regulations and paste into this ordinance any requirements for buildings.*  *For “higher standards” that affect the design of buildings (such as freeboard) and other higher standards, see the instructions and model language on* [*https://www.water.ca.gov/nfip/*](https://www.water.ca.gov/nfip/) *and contact DWR NFIP staff for assistance.* |

**Floodplain Administrator Responsibilities.** The Floodplain Administrator is the position designated by the community’s legislative body to be responsible for administering the floodplain management regulations. The Floodplain Administrator may or may not be the Building Official. In many communities the floodplain management responsibilities traditionally have been assigned to a department other than the building department (e.g., planning, engineering, public works, stormwater). In other communities, the responsibilities are assigned to the building department. Coordinating with the appropriate units is the Floodplain Administrator’s responsibility.

The Building Official is responsible for enforcing the California Building Standards Code (CCR Title 24), including the flood provisions contained in each part of the code. The floodplain management responsibilities related to requirements in the Model Ordinance can continue to be assigned to the department that traditionally has enforced floodplain management responsibilities.

**Administrative Provisions.** The administrative sections of the Model Ordinance are organized to be consistent with the administrative provisions in Chapter 1 of each code. CCR Title 24 Chapter 1 is available for local adoption and enforcement. Chapter 1 contains some flood provisions – communities that do not use the Chapter 1 of each code should take care to include those flood provisions in their code administration regulations. However, it is important to note that some administrative provisions, even if included in the building codes, must be retained in the floodplain management regulations in order to appropriately regulate development that is not within the scope of the building codes (development other than buildings and structures).

**Inspection and Enforcement.** The Model Ordinance specifies that the Floodplain Administrator shall make certain inspections and shall enforce the regulations. In addition, it alerts the reader that the building codes authorize the Building Official to inspect work for which building permits have been issued and to enforce the building codes.

**Frequently Asked Questions.** Frequently asked questions about transitioning to floodplain regulations that are coordinated with the flood provisions in the CCR Title 24 are answer in the FAQs on the DWR Floodplain Management web page, <https://www.water.ca.gov/nfip/>. For questions not covered by the FAQs, contact DWR or FEMA at [DWR\_NFIP@water.ca.gov](mailto:DWR_NFIP@water.ca.gov) or [FEMA-NFIP-R9@fema.dhs.gov](mailto:FEMA-NFIP-R9@fema.dhs.gov).

**Higher Standards.**  DWR makes available separate instructions explaining certain higher standards that can be accomplished as part of floodplain management ordinances (download from <https://www.water.ca.gov/nfip/>). Higher standards that affect the design of buildings must be adopted in accordance with statutory requirements for local amendments to the CCR Title 24. Local amendments are not effective until copies of the amendment documents are filed with the California Building Standards Commission. Local amendments to the building code must be re-adopted every three years when the building code is updated.

**INSTRUCTIONS FOR TAILORING THE MODEL ORDINANCE:**

**IMPORTANT:** Ordinances to change or replace local floodplain management regulations must be reviewed by DWR or FEMA before you start the formal adoption process (e.g., before planning commission consideration or before first council reading). **Do not adopt an ordinance based on this Model Ordinance without obtaining DWR or FEMA’s review and concurrence**. Working with DWR through the process and obtaining DWR’s concurrence ensures FEMA will approve the ordinance.

**IMPORTANT:** The Model Ordinance uses generic section numbering. Careful attention must be paid to renumbering to fit within a community’s existing code of ordinances. Use the Cross Reference Numbering Tool to identify and renumber cross references. Also, content changes may affect cross references.

The instructions and notes below are keyed to the sections of the Model Ordinance. The notes are not intended to explain every provision, but to highlight those that clarify and those that are new to many local floodplain management (FPM) regulations.

The following are important aspects of the Model Ordinance:

1. The Model Ordinance is written in regulatory language, avoiding permissive and unenforceable language that may appear in some local regulations.
2. The Model Ordinance is coordinated with the CCR Title 24. The CCR Title 24 contains requirements for buildings and structures; the Model Ordinance contains other administrative provisions necessary for consistency with the NFIP and to regulate development other than buildings.
3. The official designated by position who serves as Floodplain Administrator must be identified. As written, the Floodplain Administrator and Building Official are responsible for different aspects required to fulfill a community’s commitment and responsibilities to the NFIP. In many communities both functions are fulfilled by the same office or person. In those communities, when enforcing the CCR Title 24 that person is acting as the Building Official, and when enforcing the floodplain management ordinance that person is acting as the Floodplain Administrator. The fact that two titles are used should not be cause for confusion (i.e., one person can wear two hats).
4. The Model Ordinance identifies the duties of the Floodplain Administrator. The duties of the Building Official are specified in the CCR Title 24. The Model Ordinance is designed so that the Floodplain Administrator handles NFIP-required duties that are not the responsibility of the Building Official.
5. The Model Ordinance includes specific requirements for development other than buildings. These requirements may seem new to some communities, but they are based on the overall performance expectation of the NFIP for any development, including development activities other than buildings. The specific requirements are based on FEMA guidance. The specificity is intended to help both the local official and the applicant understand what constitutes flood damage resistance for such activities.
6. The basic Model Ordinance does not include the common “higher standards” that many California communities have adopted. However, instructions and sample language to adopt many higher standards are available on the DWR Floodplain Management web page, <https://www.water.ca.gov/nfip/>. Specific statutory requirements related to local amendments to the CCR Title 24 requirements for buildings must be satisfied and local amendments must be re-adopted each time the State adopts a new edition of the CCR Title 24. Assistance will be provided to any community that elects to adopt other higher standards or otherwise modify the Model Ordinance.

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| *Effective with the 2016 edition, the CCR Title 24 Part 2.5 (residential) requires elevation to or above the BFE + 1 foot for all dwellings in all flood zones. The CCR Title 24 Part 2 (building), by reference to ASCE 24, requires all other buildings to be elevated or protected to at least BFE + 1 foot.* |

Please read the complete Model Ordinance and follow along with the notes below that are keyed to the same sections. You will find it useful to download the excerpts of the flood provisions in the CCR Title 24. The Floodplain Manager and the Building Official should get together to do this review.

The Model Ordinance is organized as follows:

* **TITLE/HEADING and WHEREAS CLAUSES**
* **SECTION 1** is “recitals” to incorporate the Whereas clauses by reference.
* **SECTION 2** contains the complete FPM regulations that are coordinated with the CCR Title 24. The regulations are organized to match the organization of the code, with scope and administrative provisions in Part I, definitions in Part II, and technical provisions in Part III.
* **SECTION 3 through SECTION 6** are part of the adopting shell to address applicability, inclusion in code of ordinances, severability and effective date.

**Step One.** The first step is to determine which flood zones are identified on your community’s Flood Insurance Rate Maps. If your FIRM has flood zones that start with the letter “A” and zones that start with the letter “V,” **these** notes and the Model Ordinance that is identified “Zones\_A-V” are the correct documents. If your community’s FIRM has only flood zones that start with the the letter “A,” download the model and instructions identified “Zone\_A Only.” Please check your FIRMs first, and contact DWR or FEMA NFIP staff if you need help making this determination.

**Step Two.** Begin to complete the community-specific information to be inserted where noted in **{bracketed bold}**:

1. **{name of community}** is the legal name of the county, city, or town.
2. **{community’s governing body}** is the city commission, board of county commissioners, town council, etc.
3. **{title of FIS}** the full title of the initial Flood Insurance Study that includes the community (check the actual title; **do not** simply insert the community or county name).
4. **{date of FIS}** date of initial FIS. Find the date the initial FIS: [https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book](https://www.fema.gov/national-flood-insurance-program-community-status-book) (select California and use the “Init FIRM” column).
5. **{body designated to hear variances}** see below for note on Sec. 107.2.
6. **{date the community’s first floodplain management ordinance was adopted}** and **{date of regular program entry}.** Note that thesemay or may not be the same date. You could research to determine the date the first ordinance was adopted or simply use the date of entry into the NFIP’s regular program in all places. Prior to accepting a community for participation in the NFIP, FEMA would have reviewed and approved floodplain management regulations. Find the date your community joined the NFIP here: [https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book](https://www.fema.gov/national-flood-insurance-program-community-status-book) (select California and use the “Reg-Emer Date” in the second column from right).

**Step Three.** Carefully consider any modifications you may wish to make to the Model Ordinance. Remember the model is written to satisfy NFIP requirements, which means you and DWR must be very careful to ensure changes are acceptable. Please contact DWR or FEMA NFIP staff if you have questions or would like a preliminary review of changes you’re considering. We recommend NOT re-numbering the sections of your draft to match your local code until after all the text changes are reviewed and approved. As part of renumbering, care must be taken to renumber cross references. An ordinance with incorrect cross references may be deemed unenforceable. Also, we recommend you not adopt with generic numbers and then rely on a commercial codification service to renumber (experience indicates cross references may not get renumbered correctly).

**Step Four.** Have DWR or FEMA NFIP staff review your tailored ordinance in <track changes> mode before you get too far along in your adoption process. This is especially important if you propose to modify, delete, or add any provisions. If additional changes – *no matter how minor –* are made after DWR or FEMA NFIP staff’s review, please send it for another review (this is especially important if changes are made or sections renumbered after legal review). Final review and approval by DWR and FEMA will be much easier if DWR or FEMA NFIP staff has reviewed and approved ALL changes. DWR or FEMA NFIP staff will also double check the re-numbering and ensure all cross references are changed correctly.

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| ***Remember*** *– the Model Ordinance was approved by FEMA. This means any changes must be reviewed by DWR or FEMA to ensure consistency with the NFIP is maintained.* |

**Step Five.** Upon adoption and execution, send NFIP staff a scan of the adopted ordinance, with all signatures. At that time, DWR or FEMA will do a final review to complete the process and send a concurrence letter.

**Step Six.** If your community adopts any amendments to the building code, the ordinance adopting those amendments must be submitted to the California Building Standards Commission. See the instructions for higher standard for the specific requirements.

**Guidance and Explanatory Notes for Model Floodplain Management Ordinance**

| **ORDINANCE SECTION** | **GUIDANCE NOTES** |
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| Title and Whereas clauses | * Communities will modify and finalize the title according to their standard practice. * Do not remove the whereas clauses. * Check <date of regular program entry> [https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book](https://www.fema.gov/national-flood-insurance-program-community-status-book) (use the “Reg-Emer Date” in the second column from right) |
| CHAPTER XX – FLOODPLAIN MANAGEMENT  PART I. – SCOPE AND ADMINISTRATION  ARTICLE 101 GENERAL PROVISIONS |  |
| Sec. 101-1. - Title. |  |
| Sec. 101-2. - Statutory authority. |  |
| Sec. 101-3. - Scope. | The NFIP definition of “development” is very broad. Communities that participate in the NFIP agree to regulate all development. Enforcing regulations based on this ordinance and enforcing CCR Title 24 fulfill the requirements for participation in the NFIP. |
| Sec. 101-4. – Purposes and objectives. |  |
| Sec. 101-5. - Coordination with *California Building Standards Code*. | This is an explicit acknowledgement that the ordinance and the CCR Title 24 are enforced together. |
| Sec. 101-6. - Warning. | A statement to this effect has always been part of local floodplain management regulations. The second part of the paragraph contains a warning that if flood maps and flood data change, the community will be required to adopt that revised flood data, which would then have to be enforced in the future. |
| Sec. 101-7. - Disclaimer of liability. | A statement to this effect has always been part of local floodplain management regulations. |
| Sec. 101-8. - Other laws. |  |
| Sec. 101-9. - Abrogation and greater restrictions. |  |
| ARTICLE 102 APPLICABILITY |  |
| Sec. 102-1. – General applicability. |  |
| Sec. 102-2. - Establishment of flood hazard areas. | Insert the actual title and date of the initial FIS. Find the date of the initial FIS: [https://www.fema.gov/flood-insurance/work-with-nfip/community-status-book](https://www.fema.gov/national-flood-insurance-program-community-status-book) (select California and use the “Init FIRM” column).  When a “countywide” map is available, the FIS and FIRMs include the unincorporated areas of the county and incorporated areas (e.g., “\_\_\_\_County, California and Incorporated Areas”). For municipalities, a reference to the countywide FIS and FIRMs means a reference to the FIRM panels (or portions of FIRM panels) that show the area within the boundaries of those municipalities. DWR does not recommend listing specific panels.  The FIS and accompanying FIRMs are adopted along with “all subsequent amendments and revisions.” California communities may rely on this “auto-adopt” language and not have to adopt every subsequent FIS and FIRM revision. Some communities elect to amend regulations to update the FIS date when new effective studies are issued by FEMA.  CCR Title 24 Part 2 (building) Section 1612 and Part 2.5 (residential) Table R301.2(1) anticipate identification of community-specific FIS/FIRM information. Rather than do that as local amendments to the building code, this section notifies users the applicable studies/maps for the building code are those adopted in this ordinance  Communities may adopt a flood hazard map other than the FIRM provided that map shows flood hazard areas that are larger than the SFHA. Any community that uses an additional map should modify this section to identify and adopt that map or study, even if the other flood hazard map is for only a portion of the community (e.g., for only one watershed or a part of a waterway). |
| Sec. 102-3. - Interpretation. |  |
| ARTICLE 103 DUTIES AND POWERS OF THE FLOODPLAIN ADMINISTRATOR |  |
| Sec. 103-1. - Designation. | Communities are required to designate one official by position title to enforce the adopted FPM regulations as part of meeting the requirements to participate in the NFIP (designation of multiple staff positions or designation of a department are not permitted).  Delegation of authority is standard, especially in departments where staff perform functions under the authority of the designated department manager or city manager. This authority also allows reviews by other departments where those departments already review or approve certain activities. For example, grading plans may be approved by a public works department; subdivision requests typically are approved by the planning department. Regardless of which department or person performs the work, the Floodplain Administrator has overall responsibility.  See notes at the top of these instructions. The Floodplain Administrator may be the building official or another position. If the Floodplain Administrator is the building official, do not change the title throughout the ordinance. When enforcing the CCR Title 24, the building official “wears the BO hat” and enforces pursuant to statutory authority, and when enforcing this ordinance, the “FPA hat is worn,” and enforcement is pursuant to the authority established in this ordinance. |
| Sec. 103-2. - General authority. |  |
| Sec. 103-3. - Coordination. | This section recognizes that communities may have more than one office or department involved in the review of applications for development in flood hazard areas. |
| Sec. 103-4. - Duties. | #3 requires the Floodplain Administrator, with the Building Official, to determine if design certifications and documentation of elevations are complete (e.g., that appropriate fields of the NFIP Elevation Certificate are completed by the surveyor).  #9 relates to requests under the building code to “modify the strict application” of requirements, which are, in effect, a request for variances. See CCR Title 24 Part 2 Sec. 104.10.1 and CCR Title 24 Part 2.5 Sec. 104.10.1. Any such request to modify the flood provisions of the building code must be handled as requests for variances per Article 107 of the FPM regulations.  #11 applies when an applicant elects to have engineering done to show different boundaries or BFEs, in which case the community can only use the new data if it is approved by FEMA. This is not equivalent to Sec. 105-2 which applies in SFHAs without BFEs, in which case the additional data are submitted for unnumbered zones to determine the BFE of the existing SFHA, not to redelineate the SFHA or to refute the BFE.  #12 satisfies the NFIP requirements for notifications related to watercourse alterations, but does not obviate the need to obtain any other Federal or State permits that may be required (see Sec. 104-4).  #14 applies when applicants seek variances from these regulations (#9 refers to variances for buildings).  #16 Communities that annex area outside the municipal boundaries shown on the current FIRM must notify FEMA. This is especially important when a community participates in the NFIP Community Rating System or has a better CRS class than the county. |
| Sec. 103-5. - Substantial improvement and substantial damage determinations. | These responsibilities are not new, although most existing local regulations do not include this level of detail. FEMA recommends establishing procedures for SI/SD to provide uniformity, especially to identify the primary method to establish market value (see FEMA P-758, *Substantial Improvement/Substantial Damage Desk Reference*. See the packet of forms and sample letters in Appendix D of FEMA P-758. Communities that could experience widespread flood damage should review the Desk Reference and decide in advance how various aspects of dealing with the aftermath will be handled, such as estimating costs and market values.  #1, see the definition of “market value.” Note the definition allows use of adjusted tax assessment value. Applicants who dispute use of adjusted assessment value may prefer to use Actual Case Value or may submit professional appraisals.  #2, see *Substantial Improvement/Substantial Damage Desk Reference* (FEMA P-758) for methods to estimate costs.  #3, the determination is made by dividing the cost by the market value; if the result is 50% or more, then the proposed work is SI or repair of SD.  #4, an important responsibility is to notify the applicant/owner whether the work is or is not determined to be SI or SD. |
| Sec. 103-6. - Department records. | Communities make a commitment to the NFIP to retain certain documents in permanent records and to make those records available for public inspection. This commitment overrides any other provision of law or Secretary of State Records Management Guidelines that may allow disposal of public records after a certain period of time. |
| ARTICLE 104 PERMITS FOR FLOODPLAIN DEVELOPMENT |  |
| Sec. 104-1. - Permits required. |  |
| Sec. 104-2. - Application for permit. |  |
| Sec. 104-3. - Validity of permit. |  |
| Sec. 104-4. - Other permits required. |  |
| Sec. 104-5. - Expiration. |  |
| Sec. 104-6. - Suspension or revocation. |  |
| Sec. 104-7. - Appeals of decisions. |  |
| ARTICLE 105 SITE PLANS AND CONSTRUCTION DOCUMENTS |  |
| Sec. 105-1. - Information for development in flood hazard areas. | #6 is intended to minimize the placement of fill in flood hazard areas, especially fill that is not intended to support buildings. Because of adverse impacts on flooding, flood hazard areas should not be used to dispose of excess fill. In addition, applicants who intend to fill an area and then seek a map change to “remove” the area from the mapped SFHA should do so as part of the permit which requires proper compaction when the fill is initially placed, not as a subsequent action.  #7 is not intended to imply that alteration of sand dunes is permissible. Only that when such activities are allowed by the California Coastal Commission, the flood-damage impacts must be considered pursuant to this ordinance before a local permit can be issued.  #8 requires delineation of any alteration of a watercourse (see Sec. 105-3 #3 for other requirements for such proposals).  Note that Sec. 103-2 allows the Floodplain Administrator to waive submission requirements under some circumstances. The Floodplain Administrator should not waive any requirement that is needed to review an application for compliance. For example, this provision would allow sketches for activities that don’t need scaled plans, such as adding a deck, an addition, interior-only improvements, building an accessory structure, or minor grading and paving for parking. |
| Sec. 105-2. - Information in flood hazard areas without base flood elevations (approximate Zone A). | #1 provides the Floodplain Administrator the authority to require the applicant to develop data using acceptable methods. The building code gives the building official the same authority.  #2 allows use of data from other sources, including the community itself, such as information from nearby permits, local drainage studies, or documentation of past flooding.  #3, if data are not available from another source, or the data aren’t acceptable, provides the Floodplain Administrator authority to (a) require the applicant to include data; or (b) under very specific circumstances, specify the depth above grade. This is consistent with NFIP guidance (FEMA 265, page III-6) that assumes the flooding is shallow in approximate Zone A (sometimes called “unnumbered Zone A”). If an area is known to flood frequently to a depth of 2 ft, it is reasonable to assume that flooding will be deeper during more severe (less frequent) events, in which case another method must be used rather than default to 2-ft. Item #3 should be rewritten to remove (b) when communities require determinations of BFEs by an engineer.  Note that Secs. 302-2 and 303-1 require base flood elevation data to be included in subdivision proposals and development proposals containing at least 50 lots or at least 5 acres if the FIRM does not show BFEs. |
| Sec. 105-3. - Additional analyses and certifications. | #1 analyses are required when development is proposed for locations in floodways. Floodways are areas where obstructions may divert flow or increase BFEs. FEMA delineates floodways for many waterways by using computer models to estimate the impacts on flood elevations associated with potential development in floodway fringe areas. The floodway boundary is drawn when the computer model determines floodway fringe development would cause the water surface elevation to go up no more than 1 foot.  #2 addresses situations where SFHAs are shown with BFEs but without floodways. The potential impact of encroachments has not been evaluated by FEMA and the NFIP regulations require that hydrologic and hydraulic analysis be performed when applications are submitted (equivalent to delineating a floodway). This requirement is found in NFIP regulations at 44 CFR 60.3(c)(10). Communities should contact DWR for guidance. |
| Sec. 105-4. - Submission of additional data. |  |
| ARTICLE 106 INSPECTIONS |  |
| Sec. 106-1. – Inspections, in general. | An important part of fulfilling responsibilities to the NFIP is to inspect permitted development, including development other than buildings and structures. |
| Sec. 106-2. - Inspections of development other than buildings and structures. | Inspection of buildings and structures is specified by the CCR Title 24. |
| Sec. 106-3. - Inspections of manufactured homes installations. | Requirements for manufactured home installations in flood hazard areas are included in Sec. 304. |
| Sec. 106-4. - Buildings and structures. | This reinforces the requirements of the building code, which requires submission of elevation documentation. |
| ARTICLE 107 VARIANCES |  |
| Sec. 107-1. - Nature of variances. | Variances are official permission to undertake an activity that is otherwise prohibited or not approvable under the regulations or building code. A pattern and practice of issuing variances may prompt scrutiny by FEMA and DWR. It is inappropriate to use variances to resolve violations or to attempt to solve problems discovered after construction is completed unless a variance can legitimately be granted after all due consideration. |
| Sec. 107-2. – Variances; general. | Communities designate a variety of bodies to hear variances: planning and zoning board, board of appeals and adjustments, board of adjustment, city commission, city council, or board of zoning appeals. |
| Sec. 107-3. - Limitations on authority. |  |
| Sec. 107-4. - Records. | Documentation for each variance considered shall be retained in permanent records (see Sec. 103-6). |
| Sec. 107-5. - Historic structures. | A determination that improvement of a historic building will not preclude its continued designation as a historic building should be based on documentation provided by a qualified authority, preferably the authority that determined the building meets the criteria for listing as a historic structure. |
| Sec. 107-6. - Restrictions in floodways. | Regardless of whether a variance can be justified, no increase in flood level is permitted. Increasing flood levels may adversely impact or constrain adjacent property. |
| Sec. 107-7. - Functionally dependent uses. | This section is consistent with NFIP regulations at 44 CFR 60.3(7). Although it allows variances for functionally dependent uses (see definition for specific limitations) that would allow them below BFE, it does not allow such uses to entirely disregard methods to minimize flood damage. |
| Sec. 107-8. – Agricultural structures. | This section is consistent with FEMA Policy #104-008-03 (issued February 2020). This section is optional; if not retained, remove the text and renumber the subsequent subsections.  Communities that retain this section should obtain and review the FEMA *Floodplain Management Bulletin: Floodplain Management Requirements for Agricultural Structures and Accessory Structures*. |
| Sec. 107-9. - Considerations for issuance of variances. | Documentation to support issuance of variances should include technical evaluations, relevant factors, and should address each of the considerations listed. |
| Sec. 107-10. - Conditions for issuance of variances.  . | Documentation to support issuance of variances should include documentation of each of conditions listed. See Floodplain Management Bulletin: Variances (FEMA P-993). For variances related to SI/SD, see *Substantial Improvement/Substantial Damage Desk Reference,* FEMA P-758 (Section 5.6.7).  DWR recommends communities require recipients of variances for buildings below the BFE to record the variances in the title to alert potential purchasers of the property. Do this by adding the following:  (6) Written agreement signed by the recipient of a variance to allow construction of the lowest floor below the require elevation to record the variance in the Office of the **{County}** Recorder in a manner so that it appears in the chain of title of the property |
| ARTICLE 108 VIOLATIONS |  |
| Sec. 108-1. - Violations. | This section applies to violations of this ordinance. Building Officials have authority to enforce violations of the CCR Title 24. Structures or other development without elevation certificates, other certifications, or other evidence of compliance are considered violations until such documentation is provided. |
| Sec. 108-2. - Authority. |  |
| Sec. 108-3. - Unlawful continuance. | Many communities have penalties specified elsewhere in their code of ordinances, and a reference to that section could be inserted rather than the broad “as prescribed by law.” |
| PART II. – DEFINITIONS | Some communities may put all definitions in one section of local code rather than in the chapter specific for floodplain management. When this is done, and when a term may have two definitions, it is appropriate to modify the definitions that are specific to the flood chapter by adding “for the purposes of Chapter xxx….” |
| ARTICLE 201 DEFINITIONS | Some definitions include informational bracket notes indicating those terms are also defined in the CCR Title 24 Part 2. Those notes may be removed. |
| Sec. 201-1. - General. |  |
| Sec. 201-2. - Definitions |  |
| “Accessory structure” |  |
| “Agricultural structure” | Definition in accordance with FEMA Policy #104-008-02. Communities that do not adopt the variance provision for agricultural structures in Sec. 107.8 should remove this definition. |
| “Alteration of a watercourse” | Requirements for alteration of a watercourse apply to riverine (nontidal) waterways (see Sec. 105-3(3)). |
| “ASCE 24” | The CCR Title 24 refers to ASCE 24. For the CCR Title 24 Part 2, ASCE 24 contains the detailed, specific requirements for buildings and structures in flood hazard areas. The CCR Title 24 Part 2.5 requires dwellings in floodways to comply with ASCE 24 and allows ASCE 24 as an alternative in all SFHAs. See “Highlights of ASCE 24” prepared by FEMA, available at <https://www.fema.gov/building-code-resources> |
| “Base flood” |  |
| ”Base flood elevation” |  |
| “Basement” |  |
| “Building code” | The CCR Title 24 is a family of codes (building, dwelling, existing building, mechanical, plumbing, and fuel gas). The CCR Title 24 includes flood provisions that FEMA has determined to be consistent with the NFIP requirements for buildings and structures; see especially Sec. 1612 (building), Sec. R322 (dwelling), although flood provisions also appear in other sections of those parts, and in Part 10 (existing building). The term “building code” is used to refer to all of the codes. |
| “Coastal A Zone” | See definition for “Limit of Moderate Wave Action.” |
| ”Coastal high hazard area” |  |
| “Design flood” | The design flood is either the base flood or another flood based on other criteria. A community may choose to prepare and adopt flood hazard maps that show flood hazard areas that are not on maps prepared by FEMA. These may be areas that FEMA did not study or areas that were studied with dif­ferent criteria. For example, as a general rule, in inland areas FEMA is concerned primarily with flooding sources that have a drainage area of 1 square mile or more. Another example would be a community that maps areas subject to ponding and drainage problem areas. And another, some communities elect to pre­pare flood hazard maps based on the assumption that the upland watershed is built out to existing zoning, often called "ultimate development," and sometimes the “flood of record” is the basis for regulation.  Most California communities use the FIRM; therefore, the design flood equals the base flood. |
| “Design flood elevation” | Most California communities use the FIRM; therefore, the design flood elevation equals the base flood elevation. One foot of freeboard is already in the building code. It is incorrect to define the DFE to be BFE plus freeboard. |
| “Development” |  |
| “Encroachment” |  |
| “Exceptional hardship’ |  |
| "Existing manufactured home park or subdivision" | See note above regarding the adoption date of the community’s first floodplain management ordinance. |
| "Expansion to an existing manufactured home park or subdivision" |  |
| “Flood or flooding” |  |
| “Flood control project” |  |
| “Flood damage-resistant materials” |  |
| “Flood hazard area” | This term refers to (1) the mapped Special Flood Hazard Area shown on FIRMs, and (2) a larger area if the community adopts another map or legally designates an area. Most California communities use the FIRM; therefore, the flood hazard area equals the special flood hazard area. |
| “Flood Insurance Rate Map (FIRM)” | Revised FIRMs that have been prepared in digital format or converted to digital format are referred to as Digital FIRMs (DFIRM). The term “Flood Insurance Rate Map (FIRM)” refers to flood hazard data provided by FEMA, regardless of whether the data are shown on printed products or in digital format.  DWR will help communities that have Flood Boundary and Floodway Maps to modify the model to appropriately reference those maps. |
| ”Flood Insurance Study” |  |
| “Floodplain Administrator” |  |
| “Floodway” |  |
| "Fraud or victimization" |  |
| “Functionally dependent use” |  |
| “Highest adjacent grade” |  |
| "Historic structure" |  |
| “Letter of Map Change (LOMC)” |  |
| “Limit of Moderate Wave Action (LiMWA)” | See definition for “Coastal A Zone.” |
| “Light-duty truck” | Used in the definition for “recreational vehicle.” |
| “Lowest floor” |  |
| “Manufactured home” | This NFIP definition is modified to refer to Health and Safety Code. Units that are called “park trailers,” “travel trailers” or “HUD RVs” are treated as recreational vehicles. |
| “Manufactured home park or subdivision” |  |
| “Market value” | The alternatives to establish market value are described in *Substantial Improvement/Substantial Damage Desk Reference* (FEMA P-758). Communities should decide which method to use and apply it consistently. When using adjusted tax assessment value, documentation of the factor (multiplier) provided by the Property Appraiser should be kept with permit records and should be verified at least annually. |
| "New manufactured home park or subdivision" | See note above regarding the adoption date of the community’s first floodplain management ordinance. |
| "Nuisance" |  |
| “Permit for floodplain development” |  |
| “Recreational vehicle” |  |
| "Riverine" |  |
| "Sand dunes" |  |
| "Special flood hazard area (SFHA)" |  |
| “Substantial damage” | For guidance, see *Substantial Improvement/Substantial Damage Desk Reference* (FEMA P-758). |
| “Substantial improvement” | For guidance, see *Substantial Improvement/Substantial Damage Desk Reference* (FEMA P-758).  Communities that elect to handle historic structures by variance (see Sec. 107-5) should remove item (2). The benefit of handling by variance is the requirement that variances be the minimum necessary, which provides the opportunity to require some measures to minimize future flood damage. This approach is consistent with the overall intent of preserving cultural and historic resources. |
| “Utility and Miscellaneous Group U” | See CCR Title 24 Part 2 Sec. 312. |
| “Variance” |  |
| “Violation” |  |
| “Watercourse” |  |
| PART III. – FLOOD RESISTANT DEVELOPMENT |  |
| ARTICLE 301 BUILDINGS AND STRUCTURES |  |
| Sec. 301-1. - Requirements for buildings and structures in flood hazard areas. | This reminds users the requirements for buildings and structures are in the CCR Title 24. |
| Sec. 301-2. – Detached garages and accessory storage structures. | The size limits specified are approved by the FEMA Region 9 office and are consistent with FEMA Policy #104-008-03. |
| Sec. 301-3. - Utility and Miscellaneous Group U. |  |
| ARTICLE 302 SUBDIVISIONS |  |
| Sec. 302-1. - Minimum requirements. |  |
| Sec. 302-2. - Subdivision requirements. |  |
| ARTICLE 303 SITE IMPROVEMENTS, UTILITIES AND LIMITATIONS |  |
| Sec. 303-1. - Minimum requirements. | Although these requirements are the same as Sec. 302-1, here the requirements apply to developments other than subdivisions (i.e., single parcel). |
| Sec. 303-2. - Sanitary sewer facilities. |  |
| Sec. 303-3. - Water supply facilities. |  |
| Sec. 303-4. - Development in floodways. | This is a key provision that is referenced in several other sections. Development must be prohibited in floodways unless an analysis demonstrates the encroachment will not increase base flood elevations. |
| Sec. 303-5. - Limitations on placement of fill. | Fill may be placed to support buildings or for other purposes. These provisions for fill placed to elevate buildings come from ASCE 24, a standard referenced in the building code. The building code also includes requirements in CCR Title 24 Part 2 Sec. 1803.5.8 and Part 2.5 Sec. R401 (fill soils) and R506 (concrete floors on ground). The ASTM Standard D-698 *Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort* may be referenced. |
| Sec. 303-6. – Location and fill in coastal high hazard areas (Zone V/VE) and Coastal A Zones. |  |
| Sec. 303-7. - Nonstructural fill or alteration of sand dunes in coastal high hazard areas (Zone V/VE) and Coastal A Zones. | #1 The description of the uses and “minor” quantities of fill are the same as specified in the CCR Title 24 Part 2.5. Although a specific volume is not defined, the nature and purposes for which minor grading and quantities of fill may be used are sufficient to place bounds on proposals. FEMA Technical Bulletin 5 (2020 edition) suggests that the placement of up to 2 feet of site-compatible, non-structural fill under or around an elevated building can be assumed to be acceptable without engineering analyses, provided basic site drainage principles are not violated. The placement of fill can deflect waves and divert flood flows which may damage buildings.  #2 and #3 come from NFIP Technical Bulletin 5. Note that any proposal for dune construction or restoration of dunes must be approved by other federal, State, and local authorities, including the CCC or the applicable local reviewing agency. Where applicable, such other permits should be obtained before considering proposals under this ordinance. |
| Sec. 303-8. - Other site improvements in coastal high hazard areas (Zone V/VE) and Coastal A Zones. | Walls and other structures listed can deflect waves and divert flood flows which may damage buildings. Note that any proposal for site improvements must be approved by other federal, State, and local authorities, including the CCC or the applicable local reviewing agency. Where applicable, such permits should be obtained before considering proposals under this ordinance. |
| ARTICLE 304 INSTALLATION OF MANUFACTURED HOMES |  |
| Sec. 304-1. - Installation. | Manufactured home installers are licensed by DHCD. Local floodplain development permits are required in addition to permits required by DHCD where DHCD is the enforcement agency for installation of manufactured homes. Duties of the Floodplain Administrator (Sec. 103-4) include completing the appropriate section of DHCD’s Floodplain Ordinance Compliance Certification form. |
| Sec. 304-2. - Foundations. | This section and others in Article 304 refer to requirements in the CCR Title 24 Part 2.5 rather than repeat the requirements. This is not equivalent to applying CCR Title 24 to manufactured homes. Replacement foundations are subject to the requirements, regardless of whether the cost would otherwise not be substantial improvement.  See *Protecting Manufactured Homes from Floods and Other Hazards* (FEMA P-85)  <http://www.fema.gov/library/viewRecord.do?id=1577>. This publication includes a number of pre-engineered foundation solutions that take into account flood, seismic, and wind loads. |
| Sec. 304-3. - Anchoring. |  |
| Sec. 304-4. - General elevation requirement. | In this section and Sec. 304-5, changing “lowest floor” to “bottom of the frame” would result in ductwork at or above the BFE. In 2009 FEMA revised the manufactured home installation guidance (FEMA P-85) to refer to the bottom of the lowest horizontal supporting member (longitudinal chassis frame beam) as the reference level. Ductwork under homes is above that reference level, and thus above the minimum required elevation. |
| Sec. 304-5. - Elevation requirement for certain existing manufactured home parks and subdivisions. | This section allows certain homes in existing parks/subdivisions that were established before the date the community joined the NFIP to be placed, replaced, or substantially improved without full elevation, provided a home on the site was not substantially damaged by flooding. In these existing parks/subdivisions, homes may be on reinforced piers or other foundation elements of at least equivalent strength. For “dry stack block” piers, equivalent strength can be provided by cross bracing and diagonal straps and ground anchors that provide adequate resistance to flooding when soils are saturated (also see FEMA P-85).  Communities that do not want to allow certain replacement manufactured homes to be installed below the BFE on foundations that are at least 36” above grade should modify this section (see Higher Standards instructions). |
| Sec. 304-6. - Flood damage-resistant materials. |  |
| Sec. 304-7. - Enclosures. |  |
| Sec. 304-8. - Protection of mechanical equipment and outside appliances. |  |
| ARTICLE 305 RECREATIONAL VEHICLES |  |
| Sec. 305-1. - Temporary placement. |  |
| Sec. 305-2. - Permanent placement. |  |
| ARTICLE 306 OTHER DEVELOPMENT |  |
| Sec. 306-1. - General requirements for other development. | The NFIP definition of “development” is broad and includes the “other development” listed in this section. This model includes specific provisions so that neither the applicant nor the local official has to figure out what is necessary to comply with the general performance expectation. |
| Sec. 306-2. - Tanks. |  |
| Sec. 306-3. - Requirements for temporary structures and temporary storage in flood hazard areas. |  |
| Sec. 306-4. - Fences in floodways. |  |
| Sec. 306-5. - Oil derricks. |  |
| Sec. 306-6. - Retaining walls, sidewalks and driveways in floodways. |  |
| Sec. 306-7. - Roads and watercourse crossings in floodways. |  |
| Sec. 306-8. - Swimming pools. |  |
| ARTICLE 307 FLOOD CONTROL PROJECTS |  |
| Sec. 307-1. - Flood control projects; general. |  |
| Sec. 307-2. - Flood control projects; applications. |  |