Attachment #5

Draft Strikeout/Underline Language for Floodplain Regulations

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§ 113.0103 Definitions

Base Flood means a *flood* having a one percent chance of being equaled or exceeded in any given year (also called "100-year flood".)

Base flood elevation means the water surface elevation of a ~~100-year frequency~~ *base flood*.

Environmentally sensitive lands means land containing *steep hillsides, sensitive biological resources, coastal beaches, sensitive coastal bluffs,* or ~~*100-year floodplains*~~ *Special Flood Hazard Areas*.

Flood or *flooding* means a general and temporary condition of partial or complete inundation of normally dry land areas from (1) the overflow of *flood* waters, (2) the unusual and rapid accumulation or runoff of surface waters from any source, and/or (3) the collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as flash *flood* or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in *flooding* as defined in this definition.

Flood~~plain~~ fringe means all that land in a ~~*100-year floodplain*~~ *Special Flood Hazard Area* not lying within a *floodway*, as shown on the ~~*Flood Hazard Boundary Maps*~~ *Flood Insurance Rate Maps*.

~~*Flood Hazard Boundary Map (FHBM)* means the most current effective maps as defined by the Federal Emergency Management Agency or Federal Insurance Administration where the boundaries of *flood* and mudslide-related erosion areas having special hazards have been designated as Zones A, M, and/or E.~~

Flood Insurance Rate Map (FIRM) means the most current effective maps as ~~defined~~ published by the Federal Emergency Management Agency ~~or Federal Insurance Administration~~ that delineates the ~~areas of *special flood hazards*~~ *Special Flood Hazard Areas* and the risk premium zones applicable to the community.

Flood Insurance Study means the most current report published by the Federal Emergency Management Agency in conjunction with the *Flood Insurance Rate Maps (FIRM)*. The study includes such background data as the *base flood* discharges and water surface elevations that were used to prepare the *FIRMs*.

~~*Flood, 100-year frequency* (See *100-year frequency flood*)~~

Floodplain, ~~*100-year*~~ (See ~~*100-year floodplain*~~ *Special Flood Hazard Area*)

Floodway means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the *base flood* without cumulatively increasing the water surface elevation more than one foot. *Floodway* also means the area within a ~~*100-year floodplain*~~ *Special Flood Hazard Area*, as shown on the ~~*Flood Hazard Boundary Maps*~~ *Flood Insurance Rate Maps*. ~~needed to carry a *100-year frequency flood* within a theoretical channel without increasing the water surface elevation more than 1 foot at any point from that of a~~

~~nonconfined *100-year frequency flood* in the natural undeveloped floodplain, and having taken into consideration the cumulative effect of all existing and anticipated *development* in the watershed of the affected watercourse.~~

~~*100-year floodplain* means the lands adjoining, and including, the channel of a river, stream, water course, bay, or other body of water that is subject to inundation by the *flood* waters of a *100-year frequency flood*. The *100-year floodplain* includes the *floodway* and *floodplain fringe* as identified in the *flood hazard boundary maps*.~~

~~*100-year frequency flood* means a *flood* that has a 1 percent probability of occurring in any given year, as determined by a statistical analysis of stream flow records available for the watershed and rainfall and run off characteristics of the region.~~

Special Fflood Hhazard Area means any ~~*100-year floodplain* or~~ area inundated during a *base flood* as shown on the Federal Insurance Rate Map ~~or *Flood Hazard Boundary Map*~~ as Zone A, AO, A1-30, AE, A99, AH, VO, V1-30, VE, V, M, or E (also referred to as the 100-year *floodplain*).

Substantial improvement, for the purposes of Section 143.0145 means any reconstruction, rehabilitation, addition, or other proposed new development of a structure, the cost of which, equals or exceeds 50 percent of the market value of the structure before the start of construction of the improvement.

§ 126.0402 When a Neighborhood Development Permit Is Required

(b) A Neighborhood Development Permit is required for *single dwelling unit development* on an individual *lot* that is less than or equal to 15,000 square feet and contains *steep hillsides*, ~~*100-year floodplains*~~ *Special Flood Hazard Areas*, or *sensitive biological resources* as described in Section 143.0110.

§ 126.0502 When a Site Development Permit Is Required

(B) *Development* on *lots* greater than 15,000 square feet containing *sensitive biological resources*, *steep hillsides*, or ~~*100-year floodplains*~~ *Special Flood Hazard Areas* as described in Section 143.0110;

§ 126.0504 Findings for Site Development Permit Approval

(d) Supplemental Findings--Environmentally Sensitive Lands Deviation from Federal Emergency Management Agency Regulations

(1) The proposed *development*, within any designated *floodway* will not result in an increase in *flood* levels ~~within any designated *floodway*~~ during the *base flood* discharge; and

§ 129.0602 When a Site Grading Permit Is Required

(c) any grading within the ~~*100-year floodplains*~~ *Special Flood Hazard Area.*

§ 131.0205 Purpose of the OF (Open Space--Floodplain) Zone

The purpose of the OF zone is to control *development* within *floodplains* to protect the public health, safety, and welfare and to minimize hazards due to *flooding* in areas identified by the *FIRM* on file with the City Engineer ~~City's floodplain administrator~~. It is the intent of the OF zone to preserve the natural character of *floodplains* while

permitting *development* that will not constitute a dangerous condition or an impediment to the flow of *flood* waters. It is also the intent to minimize the expenditure of public money for costly *flood* control projects and to protect the functions and values of the *floodplains* relating to groundwater recharge, water quality, moderation of *flood* flows, wildlife movement, and habitat.

§ 142.0135 Grading Within the ~~100-year Floodplain~~ *Special Flood Hazard Area*

Grading within the ~~*100-year floodplains*~~ *Special Flood Hazard Area* shall comply with Chapter 14, Article 2, Division 2 (Drainage Regulations) and Chapter 14, Article 3, Division 1 (Environmentally Sensitive Lands Regulations).

§ 142.0230 Development Within the ~~100-year Floodplain~~ *Special Flood Hazard Area*

All *development* within ~~the *100-year floodplains*~~ *a Special Flood Hazard Area* shall comply with Chapter 14, Article 3, Division 1 (Environmentally Sensitive Lands Regulations).

§ 143.0110 When Environmentally Sensitive Lands Apply

(a) Where any portion of the *premises* contains any of the following *environmentally sensitive lands*, this division shall apply to the entire *premises*, unless otherwise provided in this division:

(5) ~~*100-year floodplains*~~ *Special Flood Hazard Areas*.

§ 143.0111 Limited Exception from Environmentally Sensitive Lands Regulations

(e) *Development* in the OF zone or within any ~~*100-year floodplains*~~ *Special Flood Hazard Area* (formerly the FW, FC, and FPF zones) in the Mission Valley Community Plan area, is subject only to the Federal Emergency Management Agency Special Regulations in Section 143.0145(c).

§ 143.0130 Uses Allowed Within Environmentally Sensitive Lands

(c) *Floodways*. Uses permitted within the *floodway* portion of a ~~*100-year floodplains*~~ *Special Flood Hazard Area* are those allowed by the OF zone, as indicated in Table 131-02B.

§ 143.0145 Development Regulations for Floodplains

Special Flood Hazard Areas within the City of San Diego are hereby established in accordance with the report entitled "*Flood Insurance Study*, San Diego County, California," dated June 16, 1999 and the accompanying *Flood Insurance Rate Maps (FIRM)*, published by the Federal Emergency Management Agency (FEMA), on file in the office of the City Clerk as Document No. xx-xxxxx, including any supplements, amendments, and revisions which are properly promulgated by FEMA or the Federal Insurance Administrator.

For the purposed of Section 143.0145, the City Engineer is hereby designated as the Floodplain Administrator to administer, implement, and enforce this ordinance by grating or denying development permits in accordance with its provisions, as specified by FEMA.

The degree of *flood* protection required by this section is considered reasonable for regulatory purposes and is based

on scientific and engineering considerations. Larger *floods* can and will occur on rare occasions. It is possible that increased *flood* heights may result from man-made or natural causes. This section does not imply that land outside ~~the areas of *special flood hazards*~~ a Special Flood Hazard Area or uses permitted within such areas will be free from *flooding* or *flood* damages. This section shall not create liability on the part of the City, any officer or employee thereof, or the ~~Federal Emergency Management Agency (FEMA)~~ FEMA, for any *flood* damages that result from reliance on this chapter or any administrative decision lawfully made thereunder.

The following development regulations apply to all *development* proposing to encroach into ~~*100-year floodplains*~~ a Special Flood Hazard Area, including both the *floodway* and *flood~~plain~~ fringe* areas or that does not qualify for an exemption pursuant to Section 143.0110(c):

(a) *Floodways*

(1) Within the *floodway* portion of a *premises* ~~containing a *100-year floodplain*~~, development regulations are as set forth for the OF zone, pursuant to Section 131.0231.

(2) *Structures* associated with any allowed use shall comply with the following requirements:

(A) *Structures* shall not be attached to a foundation, in order to readily move them in case of *flood*; and

(B) *Structures* shall be removed upon imminence of *flooding*, as predicted by the National Weather Service or local public weather broadcast. If a *structure* is not removed and *flooding* occurs, the retrieval or salvage of the *structure* and repair of any damage caused by the *structure* shall be the responsibility of the owner.

(3) *Channelization* or other substantial alteration of rivers or streams shall be limited to that necessary for the following:

(A) Essential public service projects, where no other feasible construction method or alternative project location exists; and

(B) *Flood* control projects, where no other feasible method for protecting existing public or private *development* exists and where such protection is necessary for public safety.

(C) Projects where the primary function is the improvement of fish and wildlife habitat.

(4) *Development* in *floodways* shall be offset by improvements or modifications to enable the passage of a ~~*100-year frequency*~~ *base flood*, in accordance with the FEMA standards and regulations provided in Section 143.0145(c).

(5) *Development* that involves *channelization* or other substantial alteration of rivers or streams is subject to the following requirements.

(A) All requirements and relevant recommendations of hydrological studies for the watershed of the affected stream, as approved by the City Engineer, shall be incorporated into the project design and mitigation measures. These requirements include erosional characteristics, flow velocities, volume, sediment transport, and maintenance of hydrology.

(B) The channel shall be designed to ensure that the following occur:

(i) Stream scour is minimized;

(ii) Erosion protection is provided;

(iii) Water flow velocities are maintained as specified by the City Engineer;

(iv) There are neither significant increases nor contributions to downstream bank erosion and sedimentation of *sensitive biological resources*; acceptable techniques to control stream sediment include planting riparian vegetation in and near the stream and detention or retention basins;

(v) Wildlife habitat and corridors are maintained;

(vi) Resource management criteria are implemented consistent with applicable *land use plans*; and

(vii) Groundwater recharge capability is maintained or improved.

(C) Channels that accommodate a ~~*100-year frequency*~~ *base flood* shall do so without increasing the water surface elevation more than one foot at any point from the level of a nonconfined ~~*100-year frequency*~~ *base flood* in the natural undeveloped *floodplain*. Channels may accommodate less than a ~~*100-year frequency*~~ *base flood* (low-flow channels), but shall be designed and constructed in accordance with FEMA regulations.

(D) All artificial channels shall consist of natural bottoms and sides and shall be designed and sized to accommodate existing and proposed riparian vegetation and other natural or proposed constraints. Where maintenance is proposed or required to keep vegetation at existing levels compatible with the design capacity of the channel, a responsible party shall be identified and a maintenance and monitoring process shall be established to the satisfaction of the City ~~Manager~~ Engineer.

(6) *Development* shall not significantly adversely affect existing *sensitive biological resources* on-site or off-site.

(7) Within the Coastal Overlay Zone, no *structure* or portion thereof shall be erected, constructed, converted, established, altered or enlarged, or no landform alteration *grading*, placement or removal of vegetation, except that related to a historic and ongoing agricultural operation, or land division shall be permitted, provided:

(A) Parking lots, new roadways and roadway expansions shall be allowed only where indicated on an adopted *Local Coastal Program land use plan.*

(B) *Floodway* encroachments for utility and transportation crossings shall be offset by improvements or modifications to enable the passage of the ~~one hundred (100) year frequency~~ *base flood*, in accordance with the FEMA standards and regulations provided in Section 143.0145(c).

(b) ~~*Floodplain*~~ *Flood Fringe*. The applicable development regulations are those in the underlying zone, subject to the following supplemental regulations:

(1) Within the ~~*floodplain*~~ *flood fringe* of a ~~*100-year floodplain*~~ *Special Flood Hazard Area*, permanent *structures* and *fill* for permanent *structures*, roads, and other *development* are allowed only if the following conditions are met:

(A) The *development* or *fill* will not significantly adversely affect existing *sensitive biological resources* on-site or off-site;

(B) The *development* is capable of withstanding ~~periodic~~ *flooding* and does not require or cause the construction of off-site *flood* protective works including artificial *flood* channels, revetments, and levees nor will it cause adverse impacts related to *flooding* of properties located upstream or downstream, nor will it increase or expand a ~~*Flood Insurance Rate Map (FIRM)* or *Flood Hazard Boundary Map (FHBM)*~~ *FIRM* Zone A;

(C) *Grading* and *filling* are limited to the minimum amount necessary to accommodate the proposed *development*, harm to the environmental values of the *floodplain* is minimized including peak flow storage capacity, and *wetlands* hydrology is maintained;

(D) The *development* neither significantly increases nor contributes to downstream bank erosion and sedimentation nor causes an increase in *flood* flow velocities or volume; and

(E) There will be no significant adverse water quality impacts to downstream wetlands, lagoons or other *sensitive biological resources*, and the *development* is in compliance with the requirements and regulations of the National Pollution Discharge Elimination System, as implemented by the City of San Diego.

(F) The design of the *development* incorporates the findings and recommendations of both a site specific and coastal watershed hydrologic study.

(2) All *development* that involves *fill*, *channelization*, or other alteration of a ~~*100-year floodplain*~~ *Special Flood Hazard Area* is subject to the requirements for *channelization* in Section 143.0145(a)(5) and with FEMA regulations.

(c) Special Regulations as Required by FEMA.

All proposed *development* within ~~the *100-year floodplain*~~ *a Special Flood Hazard Area* is subject to the following requirements and all other applicable requirements and regulations of FEMA.

(1) *Development* and Permit Review

(A) Where *base flood elevation* data has not been provided by the ~~FEMA~~ *Flood Insurance Study* ~~for the City of San Diego~~, the City Engineer shall obtain, review, and utilize *base flood elevation* and *floodway* data available from federal or state sources, or require submittal of such data from the *applicant*. The City Engineer shall make interpretations, where needed, as to the location of the boundaries of the ~~areas of *special flood hazards*~~ *Special Flood Hazard Area*, based on the best

available engineering or scientific information.

(B) Proposed *development* in ~~areas of *special flood hazards*~~ a *Special Flood Hazard Area* shall not adversely affect the *flood* carrying capacity of areas where *base flood elevations* have been determined but the *floodway* has not been designated. "Adversely affect" as used in this section means 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 ~~*100-year frequency*~~ *base flood* more than one foot at any point.

(C) In all cases where a watercourse~~, floodplain, or portion of a floodplain~~ is to be altered the City Engineer shall do the following:

(i) Notify affected, adjacent communities and the California Department of Water Resources of any proposed alteration or relocation of a watercourse and submit evidence of the notice to the Federal Insurance Administration;

(ii) Require that the *flood* carrying capacity of the altered or relocated portion of the watercourse is maintained; and

(iii) Secure and maintain for public inspection and availability the *certifications*, appeals, and variances required by these regulations.

(D) The *applicant* shall grant a flowage easement to the City for that portion of the property within a *floodway*.

(E) Appropriate agreements shall be secured between the *applicant* and the City to assure participation by the *applicant* or any successor in interest in financing of future *flood* control works.

(F) *Development* in a ~~*100-year floodplain*~~ *Special Flood Hazard Area* shall not increase or expand a *FIRM* Zone A.

(G) In all *floodways*, any *encroachment*, including *fill*, new construction, significant modifications, and other *development* is prohibited unless *certification* by a registered professional engineer ~~or architect~~ is provided demonstrating that *encroachments* will not result in any increase in *flood* levels during the occurrence of the ~~base~~ *base flood* discharge.

(2) Standards for *Subdivisions*

(A) All preliminary *subdivision* proposals shall identify the ~~*flood* hazard area~~ *Special Flood Hazard Area* and the elevation of the ~~base~~ *base flood*.

(B) All final *subdivision maps* shall provide the elevation of proposed *structures* and pads. If the site is *filled* above the ~~*100-year frequency flood* level~~ *base flood elevation*, the *lowest floor*, including *basement*, shall be certified to be 2 feet above the *base flood elevation* by a registered professional engineer or surveyor, and the *certification* shall be provided to the City ~~Manager~~ Engineer.

(C) All *subdivisions* shall be designed to minimize *flood* damage.

(D) All *subdivisions* shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize *flood* damage.

(E) All *subdivisions* shall provide adequate drainage to reduce exposure to *flood* hazards.

(F) The final map shall bear the notation "Subject to Inundation" for those portions of the property with a *grade* lower than 2 feet above the *base flood elevation*.

(3) Standards of Construction

In all ~~areas of *special flood hazard*~~ *Special Flood Hazard Areas*, the following standards apply for all *development*.

(A) All permitted, permanent *structures* and other significant improvements shall be anchored to prevent flotation, collapse, or lateral movement resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.

(B) All permitted permanent *structures* and other significant improvements shall be constructed with materials and utility equipment resistant to *flood* damage.

(C) Construction methods and practices that minimize *flood* damage shall be used.

(D) All electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities shall be designed and located to prevent water from entering or accumulating within the equipment components during conditions of *flooding*.

(E) *Breakaway walls* shall be certified by a registered engineer or architect to meet all applicable FEMA requirements. The *certification* shall be provided to the City ~~Manager~~ Engineer before final inspection approval.

(F) New construction ~~and modification~~ or *substantial improvement* of any *structure* shall have the *lowest floor*, including *basement*, elevated at least 2 feet above the *base flood elevation*. Upon completion of the *development*, the elevation of the *lowest floor*, including *basement*, shall be certified by a registered professional engineer or surveyor to be properly elevated. The *certification* ~~shall be recorded with the County Recorder, and the *certification* and evidence of recordation~~ shall be provided to the City ~~Manager~~ Engineer before final inspection approval. The City ~~Manager~~ Engineer reserves the right to require a preliminary *certification* before foundation inspection approval.

(G) New construction ~~and modification~~ or *substantial improvement* of any *structure* in *FIRM* Zone AH or AO shall have the *lowest floor*, including *basement*, elevated above the highest adjacent *grade* at least 2 feet higher than the depth number specified on the *FIRM*, or at least 4 feet if no depth number is specified. Upon the completion of the *structure* the elevation of the *lowest floor*, including *basement*, shall be certified by a registered professional engineer or surveyor, to be properly elevated. The *certification* ~~shall be recorded with the County Recorder, and the *certification* and evidence of recordation~~ shall be provided to the City ~~Manager~~ Engineer before final inspection approval. The City ~~Manager~~ Engineer reserves the right to require a preliminary

certification before foundation inspection approval.

(H) Permitted nonresidential construction shall either be elevated as required by Section 143.0145(c)(3)(F) or (G) or, together with attendant utility and sanitary facilities, meet the flood proofing requirements of FEMA. *Certification* by a registered professional engineer or architect that such requirements are met ~~shall be recorded with the County Recorder, and the *certification* and evidence of recordation~~ shall be provided to the City ~~Manager~~ Engineer before final inspection approval. The City ~~Manager~~ Engineer reserves the right to require a preliminary *certification* before foundation inspection approval.

(I) Fully enclosed areas below the *lowest floor* that are subject to *flooding* shall be certified by a registered professional engineer or architect that they comply with the flood proofing requirements of FEMA. The *certification* shall be provided to the City ~~Manager~~ Engineer before final inspection approval.

(4) Standards for *Manufactured Homes*

All new and replacement *manufactured homes* and additions to *manufactured homes* are subject to the following regulations.

(A) The *lowest floor* shall be elevated at least 2 feet above the *base flood elevation*.

(B) *Manufactured homes* shall be securely anchored to a permanent foundation system to resist flotation, collapse, or lateral movement.

(C) A registered engineer or architect must certify that the conditions of this subsection have been met. The *certification* ~~shall be recorded with the County Recorder, and the *certification* and evidence of recordation~~ shall be provided to the City ~~Manager~~ Engineer before final inspection approval.

(5) Standards for Utilities

Certification shall be provided to the City ~~Manager~~ Engineer before final inspection approval that the following requirements have been met.

(A) All new and replacement water supply and sanitary sewage systems shall be designed to minimize or eliminate infiltration of *flood* waters into the system and discharge from systems into *flood* waters.

(B) On-site waste disposal systems shall be located and designed to avoid impairment to them or contamination from them during *flooding*.