

**SANTA CRUZ COUNTY
&
SANTA CRUZ COUNTY FLOOD CONTROL
DISTRICT
FLOODPLAIN AND EROSION HAZARD
MANAGEMENT ORDINANCE
No. 2015-XX**

(FLOODPLAIN REGULATIONS)

**FOR THE UNINCORPORATED AREA OF
SANTA CRUZ COUNTY, ARIZONA**

**REVISED AND ADOPTED AS ORDINANCE NO. 2014-XX
OF THE BOARD OF DIRECTORS OF THE
SANTA CRUZ COUNTY FLOOD CONTROL DISTRICT
OF
SANTA CRUZ COUNTY, ARIZONA
ON XXXXXXXX, 2015**

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ORDINANCE No. 2014-0X

An Ordinance of the Board of Directors of the Santa Cruz County Flood Control District of Santa Cruz County, Arizona, replacing Ordinance No. 2001-03; restricting or prohibiting uses which are dangerous due to water or erosion hazards or which result in damaging increases in erosion or in flood heights or velocities; requiring that uses vulnerable to floods be protected from flood damage at the time of initial construction; controlling the alteration of natural floodplains, stream channels, and natural protective barriers; controlling filling, grading, dredging, and other development which may increase flood damage; preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas; mandating the issuance of a flood hazard use permit and collection of fees there from; naming the Floodplain Board to hear and decide appeals and requests for variances; deciding penalties for violation of this Ordinance; and repealing all ordinances and parts of ordinances in conflict there with.

SECTION 1.0

STATUTORY AUTHORIZATION, FINDINGS OF FACT, PURPOSE AND METHODS

1.1 STATUTORY AUTHORIZATION. The Legislature of the State of Arizona has in A.R.S. §48-3601 through §48-3627 delegated the responsibility to each county flood control district to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry. Therefore, the Flood Control District (Board of Directors) of Santa Cruz County, Arizona, does ordain as follows:

1.2 FINDINGS OF FACTS

- A. The flood hazard areas of Santa Cruz County are subject to periodic inundation which may result in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety and general welfare.
- B. These flood losses are caused by the cumulative effect of obstructions in areas of special flood hazards which increase flood heights and velocities, and when inadequately anchored, cause damage in other areas. Uses that are inadequately flood proofed, elevated or otherwise protected from flood damage also contribute to the flood loss.

1.3 STATEMENT OF PURPOSE. It is the purpose of this Ordinance to promote the public health, safety, and general welfare, and to minimize public and private losses due to the flood conditions in specific areas by provisions designed:

- A. To protect human life and health
- B. To minimize expenditure of money for costly flood control projects;

- C. To minimize the need for rescue and relief efforts associated with flooding and flood related hazards
- D. To minimize prolonged business interruptions;
- E. To minimize damage to public and private facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of flood and/or erosion hazard;
- F. 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;
- G. To ensure that potential buyers are notified that property is in an area of flood and/or erosion hazard;
- H. To ensure that those who occupy the areas of flood and/or erosion hazard assume responsibility for their actions; and
- I. To maintain eligibility for disaster relief.
- J. To qualify for the largest discounts possible in Flood Insurance Rate Premiums for the residents of unincorporated Santa Cruz County.
- K. To protect, preserve, and maintain the natural and beneficial functions of the floodplain and associated riparian habitat.

1.4 LEVEL OF STANDARDS. The performance requirements as specified in this Ordinance are minimum standards and address general floodplain management requirements. Specific projects may warrant additional requirements not specifically stated or cited within this Ordinance based upon site specific conditions. The Flood Control District and the Floodplain Administrator have the authority to establish written standards and/or policies as necessary to carry out the provisions of this Ordinance, and to provide a consistent method for dealing with reoccurring issues. All such standards and policies may be superseded provided appropriate engineering documentation and evidence showing the standard or policy should not apply to a specific property is provided. All written drainage design standards, state standards, or river and basin management plans approved by the Board of Supervisors, Flood Control District Board of Directors are hereby incorporated into this Ordinance.

1.5 METHODS OF REDUCING FLOOD LOSSES. These regulations take precedence over any less restrictive conflicting local laws, ordinances and/or code. In order to accomplish its purpose, this Ordinance includes methods and provisions for:

- A. Restricting or prohibiting uses which are dangerous to health, safety, and property due to water or erosion or sedimentation hazards, or which result in damaging increases in erosion or in flood heights or velocities, or which would release materials of a dangerous or hazardous nature into the environment during a flood event;
- B. Requiring that uses vulnerable to floods and/or erosion, including facilities which serve such uses, be protected against flood and/or damage at the time of initial construction;
- C. Controlling the alteration of natural floodplain, stream channels, riparian habitat, and natural protective barriers, which help accommodate or channel flood waters;

- D. Controlling filling, grading, dredging, and other development which may increase flood and/or erosion damage; and
- E. Preventing or regulating the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood and/or erosion hazards in other areas.

SECTION 2.0

DEFINITIONS

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

“Abandoned Land” means any land where the previously approved use has not occurred on or the taxes have not been paid for a period of at least one year.

“Abandoned Structure” means any structure that is not being maintained and for which the taxes have not been paid for a period of at least one year.

“Accessory Structure” means:

1. A small, low cost, structure that is only for the parking of no more than two vehicles, limited storage, etc., and is no larger than 120 square feet in size, and
2. A structure no larger than 120 square feet, with no sanitary facilities.

“Accessory Use” means a use that is incidental and subordinate to the principle use of the parcel of land on which it is located.

“Administrative Search Warrant” means an order in writing issued in the name of the State of Arizona, signed by a magistrate, directed to a peace officer, commanding him to accompany and appropriate official to search and inspect property in the interest of the public health, safety or welfare as part of an inspection program authorized by law.

“Adverse Impact” means impacts created by man-made changes which will increase the damages to the property or structures on the property, or neighboring properties, due to increased discharges or velocities of floodwaters, or increases in erosion or deposition on the property by floodwaters.

“Adversely Affects” means the cumulative effect of the proposed development, when combined with all other existing and anticipated development where the increase in water surface elevation exceeds the following limits. The limit of increase in the water surface elevation of the base flood shall be no more than one half foot at any point in areas where there are no other existing structures affected by the changes in water surface elevations, and no increase at all in areas where existing structures may be impacted by the proposed development

“Agricultural Operations” means all non-structural activities by the owner, lessee, agent, independent contractor or supplier conducted on any facility for the production of crops, livestock, poultry, livestock products or poultry products. These activities are considered conforming uses as long as the requirements of Section 3.7.B.2 are met.

“Alluvial Fan” means a geomorphologic feature characterized by a cone or fan shaped deposit of sediments that have been eroded from mountain slopes, transported by flood flows and then deposited in the valley floor and which are subject to flash flooding, high velocity flows, debris flows, erosion, sediment movement and deposition, and channel migration.

“Alluvial Fan Flooding” means flooding occurring on the surface of an alluvial fan or similar landform that originates at the apex and is characterized by high-velocity flows; active processes or erosion, sediment transport, and deposition; and, unpredictable flow paths.

“Apex” means a point on an alluvial fan or similar landform below which the flow path of the major stream that formed the fan becomes unpredictable and alluvial fan flooding can occur.

“Appeal” means a request for a review of the Floodplain Administrator’s interpretation of any provision of this Ordinance or a request for a variance.

“Approximate Study” means a graphic illustration of a delineation of the floodplain approved by the Floodplain Administrator made from the most reliable sources available where neither a floodplain nor a floodway had been determined by detailed methodology.

“Area Drainage Master Plan (ADMP)” means a plan that identifies the preferred alternatives of those identified in the ADMS. An ADMP provides minimum criteria and standards for flood control and drainage relating to land use and development.

“Area Drainage Master Study (ADMS)” means a study to develop hydrology for a watershed, to define watercourses, identify potential flood problem areas, drainage problems and recommend solutions and standards for sound floodplain and storm water management. The ADMS will identify alternative solutions to a given flooding or drainage problem.

“Area of Shallow Flooding” means a designated AO, AH, or VO zone on a community’s Flood Insurance Rate Map (FIRM) with a one percent or greater chance of flooding to an average depth of one to three feet where a clearly defined channel does not exist, where the path of flooding is unpredictable and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.

“Area of Special Flood Hazard” means the land in the floodplain within a community subject to a one percent or greater chance of flooding in any given year. These areas are designated as Zone A, AE, AO, AH, and A1-30 on the Flood Insurance Rate Map (FIRM) and other areas determined by the Floodplain Administrator using the criteria adopted by the Director of the Arizona Department of Water Resources and/or the Federal Emergency Management Agency (FEMA).

“Arizona Registered Professional Engineer” means any individual licensed by the Arizona Board of Technical Registration to as an engineer specializing in Civil Engineering.

“Back Fill” means the placement of fill material within a specified depression, hole, or excavation pit below the surrounding adjacent ground level as a means of improving floodwater conveyance or to restore land to the natural contours existing prior to excavation.

“Base Flood” means the flood having a one percent chance of being equaled or exceeded in any given year. (See “One Hundred Year Flood”)

“Base Flood Elevation” means the elevation shown on the Flood Insurance Rate Map for Zones AE, AH, A1-30 that indicates the water surface elevation resulting from a flood that has a one percent or greater chance of being equaled or exceeded in any given year. Also means the water surface elevation for zones, and/or regulatory floodplains, not listed

above as determined by either an Arizona Registered Professional Civil Engineer or the Floodplain Administrator.

“Basement” means any area of the building having its floor subgrade (below ground level) on all sides.

“Board” means the Board of Directors of the Santa Cruz County Flood Control District and Floodplain Administration.

“Board of Hearing Review” means a board consisting of one member from each board of directors' district or the board of directors may authorize the citizens' flood control advisory board or the board of review to designate a like number of its members to serve as the board of hearing review, whose purpose is to review decisions of the Hearing Officer upon a request for appeal of decision and order.

“Breakaway Wall” means a wall that is not part of the structural support of the building and is intended through its design and construction to collapse under specific lateral loading forces, without causing damage to the building.

“Business Day” is defined as Monday through Friday, excluding Saturdays, Sundays and National Holidays. All time intervals less than thirty (30) days within this Ordinance are Business Days

“Calendar Day” is defined as all days, including Saturdays, Sundays, and National Holidays. All time intervals over thirty (30) days within this Ordinance are Calendar Days.

“Cease and Desist Order” means an order from the Flood Control District prohibiting the person or entity to which it is directed from undertaking or continuing a particular activity or course of conduct.

“Commercial Development” means any development and/or structure constructed mainly for the purpose of conducting business, including but not limited to retail stores, restaurants, shopping centers, business offices, gas stations, etc.

“Community” means any state or area or political subdivision thereof, or any Indian tribe or authorized tribal organization, or authorized native organization which has authority to adopt and enforce floodplain management regulations for the areas within its jurisdiction.

“Compensation of Flood Volume Displacement” means the replacement of the quantity of storm water volume below the base flood elevation that could be lost due to import of fill by the proposed development.

“Critical Facility/Critical Service” means facilities and essential services including hospitals, emergency medical facilities, nursing homes and/or housing facilities likely to have occupants who may not be sufficiently mobile to avoid injury or death during a flood; police stations, fire stations, jails, prisons, emergency shelters, and/or emergency operation centers that are needed for public safety and/or flood response activities before, during and after a flood. This definition also includes public and private utility facilities, such as power, water treatment, wastewater treatment and communication facilities vital to maintaining or restoring normal services to flooded areas. For the purpose of this Ordinance, this definition also includes any facility that produces, stores, or utilizes hazardous materials or waste.

“Critical Feature” means an integral and readily identifiable part of a flood protection system without which the flood protection provided by the entire system would be compromised.

“Cumulative Substantial Damage” means the total cost of all repairs to a repetitive loss structure shall not cumulatively increase the market value of the structure more than 49 percent of the market value during the life of the structure. This term does not, however, include either:

- a. Any project for improvement of a structure to correct existing violations of federal, state or local health, sanitary or safety code specifications which have been identified by the local code enforcement official, in writing, and which are the minimum necessary to assure safe living conditions; or
- b. Any repair of flood damage to an "historic structure," provided the repair will not preclude the structure's continued designation as an "historic structure."

“Cumulative Substantial Improvement” means improvements, modifications, or additions to existing buildings are counted cumulatively for the life of the structure and reconstruction and repairs to damaged buildings are counted cumulatively for the life of the structure. When the improvements, modifications, additions, reconstruction or repairs equals or exceeds the 49 percent substantial improvement threshold, the structure must be brought into compliance.

“Detention System” means a type of flood control system which delays the downstream progress of floodwaters in a controlled manner, generally through the combined use of a temporary storage area and a metered outlet device which causes a lengthening of the duration of flow and thereby reduces downstream flood peaks.

“Development” means any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, above ground storage tanks, mining, dredging, filling, grading, paving, excavation or drilling operations, storage of materials and equipment, lot splitting, and platting. This definition does not include the planting of vegetation, painting of structures, striping of pavement, etc., i.e., work that does not alter the ground elevations or the physical structure or utilities of a building.

“Development Plan” means any sketch plan, site plan, plot plan, or subdivision plat map showing how a site is to be developed.

“District” means the County Flood Control District, as established by Title 48, Chapter 21 of the A.R.S., which is named in Santa Cruz County as the Santa Cruz County Flood Control District and Floodplain Administration and known from this point forward as the District.

“Drainage Area” means the contributing area to a single point of drainage concentration, expressed in units of area, also called catchment area, watershed, and river basin.

“Dry Well” means a deep hole, covered and designed in such a manner so as to hold drainage water until it infiltrates into the ground.

Dwelling Unit” means a place of residence which may be located in a single or multiple dwelling building or manufactured home.

“Encroachment” means the advance or infringement of uses, plant growth, fill, excavation, buildings, permanent structures or development into a floodplain which may impede or alter the flow capacity of a floodplain.

“Encroachment Limit” means the limit of encroachment into the floodplain for a subdivision, commercial or industrial development that will not result in an exceedance of the standards of this Ordinance.

“Enterprise” means any individual, partnership, corporation, association, or other legal entity and any union or group of individuals associated in fact although not a legal entity.

“Equal Degree of Encroachment” means a standard applied to the evaluation of the effects of the encroachment on increases in flood heights. It assumes that an encroachment, if permitted, may confer on all property owners on both sides of the watercourse and equal right to encroach to the same degree within the reach. Since the factors affecting hydraulic efficiency are usually not uniform within a reach, this standard may not result in equal measured distances between floodway limit lines and the regulatory floodplain boundaries of the watercourse.

- a. An "equal degree of encroachment" assumes that an encroachment, if permitted, may confer on all property owners on both sides of the watercourse an equal right to encroach to the same degree within that reach of the watercourse and modify the flow capacity within the floodplain including increasing the flood height or flow velocity within the primary channel.
- b. Since the factors affecting hydraulic efficiency are usually not uniform within a reach, this standard may not result in equally measured distances between floodway limit lines and the regulatory floodplain boundaries of a watercourse.
- c. In order to preserve the floodway and floodplain flow conveyance capacity, for all property owners, the degree of allowed encroachment is limited to a rise of no more than 0.5 feet and/or a velocity increase of no more than 10%, as measured at property lines.
- d. As approved by the Floodplain Administrator on a case-by-case basis based on an engineering analysis and a determination of no adverse impacts to adjacent properties.

“Erosion” means the process of the removal of earthen materials by flowing water and/or floodwaters. The National Flood Insurance Program does not, per se, cover this peril. (See Flood-related erosion).

“Erosion Hazard” means the threat of channel migration and/or down cutting, due to erosion during times of flooding, or erosion of the ground around a structure in such a manner as to threaten the stability of the structure.

“Erosion Hazard Area” means land adjoining a watercourse regulated by this Ordinance, which is deemed by the floodplain administrator to be subject to flood-related erosion losses.

“Erosion Hazard Setback” means the minimum horizontal distance from the top of bank or the floodplain limit, whichever is closest to the centerline of the primary channel or outside channels in a multiple channel watercourse.

“Existing Manufactured Home Park or Subdivision” means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the

manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete slabs) is completed before the effective date of the floodplain management regulations adopted by the community.

“Expansion to an Existing Manufactured Home Park or Subdivision” means the preparation of additional sites by the construction of facilities for servicing lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete slabs).

“Financial Assistance” means any form of loan, grant, guaranty, insurance, payment, rebate, subsidy, disaster assistance loan or grant, or any other form of direct or indirect Federal assistance other than general or special revenue sharing formula grants made to States.

“Flood, Flooding, or Floodwaters” a general and temporary condition of partial or complete inundation of normally dry land areas from: (1) the overflow of water, (2) the unusual and rapid accumulation or runoff of surface waters from any source, and/or (3) flood related erosion as defined elsewhere in this section.

“Flood Hazard” means the threat of an area being inundated by water due typically to excessive precipitation or obstructions to the natural flow.

“Flood Insurance Rate Map (FIRM)” means the official map on which the Federal Emergency Management Agency or Federal Insurance Administration has delineated the areas of special flood hazards and the risk premium zones applicable to the community.

“Flood Insurance Study” means the official report provided by the Federal Insurance Administration that includes flood profiles, the Flood Insurance Rate Map, the Flood Boundary and Floodway Map, and the water surface elevation of the base flood.

“Floodplain or Flood-prone Area” means any land area susceptible to being inundated by water from any source – see “flooding”.

“Floodplain Administrator” is the individual appointed to administer and enforce the floodplain management regulations, also known as the General Manager of the Santa Cruz County – County Wide Flood Control District and Floodplain Administration.

“Floodplain Board” means the Board of Directors of the Flood Control District of Santa Cruz County at such times as they are engaged in the enforcement of this Ordinance. The Santa Cruz County Board of Supervisors comprises the Board of Directors.

“Floodplain Management” means the operation of an overall program of corrective and preventive measures for reducing flood damage and preserving and enhancing, where possible, natural resources in the floodplain, including but not limited to emergency preparedness plans, flood control works, floodplain management regulations, and open space plans.

“Floodplain Management Regulations” means this Ordinance and other zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as grading and erosion control) and other application of police power which control development in flood-prone areas. This term describes federal, state, or local regulations

in any combination thereof which provide standards for preventing and reducing flood loss and damage.

“Floodplain Use Permit (FPUP)” means an official document which authorizes specific activity within a regulatory floodplain or erosion hazard area.

“Flood Protection System” means those physical structural works for which funds have been authorized, appropriated, and expended and which have been constructed specifically to modify flooding in order to reduce the extent of the area within a community subject to “special flood hazard” and the extent of the depths of associated flooding. Such a system typically includes dams, reservoirs, levees, and dikes. These specialized flood modifying works are those constructed in conformance with sound engineering standards.

“Flood proofing” means any combination of structural and non-structural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

“Flood-related Erosion” means the collapse or subsidence of land along the shore of a lake or other body of water as a result of 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 a flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding.

“Flood-related Erosion Area Management” means the operation of an overall program of corrective and preventive measures for reducing flood-related erosion damage, including, but not limited to, emergency preparedness plans, flood-related erosion control works, and floodplain management regulations.

“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. For regulatory watercourses with a discharge during the base flood greater than 1,500 cubic feet per second (cfs) where either no detailed studies have been prepared or the floodway has not been identified, the floodway limits shall be set back from each side of the primary channel bank a distance equal to four (4) times the main channel width. Also referred to as “Regulatory Floodway”.

“Floodway Fringe” is the area of the floodplain on either side of the “Regulatory Floodway” where encroachment may be permitted.

“Freeboard” means a factor of safety usually expressed in feet above a flood level for purposes of floodplain management. “Freeboard” tends to compensate for the many unknown factors that could contribute to flood heights greater than the height calculated for a selected size flood and floodway conditions, such as wave action, bridge openings, and the hydrological effect of urbanization of the watershed. The “Freeboard” in Santa Cruz County is a minimum of one (1) foot above the base flood elevation (BFE) for all habitable structures.

“Functionally Dependent Use” means a use which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or

passengers, and ship building and ship repair facilities, but does not include long-term storage or related manufacturing facilities.

“Geologic Floodplain” means that portion of the land that has, in the recent geologic past, been subject to fluvial processes. The geologic floodplain may be different than the Areas of Special Flood Hazard or Special Flood Hazard Areas. Where a detailed hydrologic and hydraulic analysis has not been conducted by an Arizona Registered Professional Engineer, utilizing accepted engineering practices, and accepted by the Floodplain Administrator, the Geologic Floodplain shall be the Regulatory Floodplain.

“Governing Body” is the local governing unit, i.e. county or municipality that is empowered to adopt and implement regulations to provide public health, safety and general welfare of its citizenry.

“Habitable Structure” is a structure that is safe and can be occupied in reasonable comfort, such that it is closed in against the weather, provides running water, access to decent toilets and bathing facilities, heating, and electricity.

“Hardship” as related to Section 6, **Variances**, of this Ordinance means the exceptional hardship that would result from a failure to grant the requested variance. The governing body requires that the variance be exceptional, unusual, and peculiar to the property involved. Mere economic or financial hardship alone is not exceptional. Inconvenience, aesthetic considerations, physical handicaps, personal preferences, or the disapproval of one’s neighbors likewise cannot, as a rule, qualify as an exceptional hardship. In addition, constraints, restrictions, etcetera, that are self-imposed do not, as a rule, qualify as an exceptional hardship. All of these problems can be resolved through other means without granting a variance, even if the alternative is more expensive, or requires the property owner to build elsewhere or put the parcel to a different use than originally intended.

“Hazardous Waste” means garbage, refuse, sludge from a waste treatment plant, water supply treatment plant or air pollution control facility or other discarded materials, including solid, liquid, semisolid or contained gaseous material, resulting from industrial, commercial, mining, and/or agricultural operations, or from community activities that because of its quantity, concentration, or physical, chemical, or infectious characteristics, may cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating illness, or pose a substantial present or potential hazard to human health or the environment if improperly treated, stored, transported, disposed of or otherwise managed, or any waste identified as hazardous pursuant to A.R.S. 49-922. Hazardous Waste does not include solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permit under 402 of Federal Water Pollution Control Act (P.L. 92-500; 86 STAT. 816) as amended, or source, special nuclear or by-product material as defined by the Atomic Energy Act of 1954 (68 STAT. 919), as amended.

“Highest Adjacent Grade” means the highest **natural** elevation of the ground surface prior to construction next to the proposed footprint of a structure.

“Historic Structure” means any structure that is:

- a. Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register.
- b. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district.
- c. Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or
- d. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either;
 - 1. By an approved state program as determined by the Secretary of the Interior or
 - 2. Directly by the Secretary of the Interior in states without approved programs.

“Immediate Danger” or “Imminent Danger” means a peril, threat, or danger to public or private property, infrastructure, or the health and/or safety of any person within the foreseeable future based upon the current forecast for the week by the National Weather Service.

“Impervious” means materials and/or construction that prevents or greatly reduces the infiltration of water into the soil.

“Industrial Development” means any development or structure constructed mainly for the production or distribution of products, materials, etc.

“Levee” means a man-made structure; usually an earthen embankment designed and constructed in accordance with sound engineering practices to contain, control, or divert the flow of water so as to provide protection from temporary flooding. Said structures run parallel to the general flow direction. Structures that are perpendicular to the flow direction are not considered to be levees.

“Levee System” means a flood protection system which consists of a levee, or levees, and associated structures, such as closure and drainage devices, which are constructed and operated in accordance with sound engineering practices.

“Life of the Structure” means:

- a. In perpetuity for any structure modified beyond its footprint as existing on May 1, 2001, or if constructed after that date, its original footprint.
- b. 10 years from the date of last damage, repair, modification to the structure, provided the structure maintains the footprint it had on May 1, 2001, or if constructed after that date, its original footprint.

“Lowest Floor” means the lowest floor of the lowest enclosed area, including basement (see “Basement” definition). An unfinished or flood resistant enclosure usable solely for parking of vehicles, building access or storage in an area other than a basement area is not considered a building’s lowest floor; provided that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of this Ordinance.

“Major Watercourse” means a watercourse or river system of regional significance, usually with a discharge during a 100-year flood event of 10,000 cfs or greater.

“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 attached to the required utilities. The term “manufactured home” does not include a “recreational vehicle”.

“Manufactured Home Park or Subdivision” means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for sale or rent.

“Market Value” shall be determined by estimating the cost to replace the structure in new condition and adjusting that cost figure by the amount of depreciation which has accrued since the structure was constructed. The cost of replacement of the structure shall be based on a square foot cost factor determined by reference to a building cost estimating guide recognized by the building construction industry. The amount of depreciation shall be determined by taking into account the age and physical deterioration of the structure and functional obsolescence as approved by the floodplain administrator, but shall not include economic or other forms of external obsolescence. Use of replacement cost or accrued depreciation factors different from those contained in recognized building cost estimating guides may be considered only if such factors are included in a report prepared by an independent professional appraiser and supported by a written explanation of the differences. At a minimum, the Market Value will be the Full Cash Value assigned by the County Assessor’s Office for the current tax year.

“Mean Sea Level” means, for the purpose of the National Flood Insurance Program, the National Geodetic Vertical Datum (NGVD) of 1929 or other datum, such as the North American Vertical Datum (NAVD) of 1988, to which base flood elevations shown on a community’s Flood Insurance Rate Map are referenced.

“Mining Reclamation Plan” means a plan for sand and gravel operations that defines hydrologic and hydraulic constraints; outlines methods of excavation, operation and site development; and provides procedures for final site reclamation pursuant to the Arizona Aggregate Mined Land Reclamation Act in Title 27 of the Arizona Revised Statutes (A.R.S. § 27-1201, et seq.).

“Natural Area” means an area shown on a plat or record of survey as an area to be left in its natural state for the purpose of preserving habitat areas.

“Natural Channel” means the channel watercourse created by geologic and geomorphic processes to without alteration or modification by man through construction.

“New Construction” means, for the purposes of determining insurance rates, structures for which the “start of construction” commenced on or after the effective date of the initial FIRM or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures. For floodplain management purposes, “new construction” means structures for which the “start of construction” commenced on or after the effective date of a floodplain management regulation adopted by Santa Cruz County, and includes any subsequent improvements to such structures.

“Non-Conforming” means any use and/or structure that is not in conformance with the current effective Ordinance of the Santa Cruz County Flood Control District and/or the most current accepted floodplain mapping.

“Obstruction” includes, but is not limited to, any dam, wall, wharf, embankment, levee, dike, pile, abutment, protection, excavation, channelization, bridge, conduit, culvert, building, wire, fence, rock, gravel, refuse, fill, structure, vegetation, or other material in, along, across, or projecting into any watercourse which may alter, impede, retard or change the direction and/or velocity of the flow of water, or due to its location, its propensity to snare or collect debris carried by the water, or its likelihood of being carried downstream.

“One Hundred Year Flood” means the flood having a one percent chance of being equaled or exceeded in any given year (see “Base flood”).

“Other Designated Representative” means a person over eighteen years of age, other than an attorney, authorized in writing by the owner or alleged violator to represent them in a public hearing before the Hearing Officer. The written authorization shall be in a form sufficient to satisfy the Hearing Officer that the person has in fact been authorized to act in the owner or alleged violator’s behalf, and that they understand and agree to be bound by actions taken by the designated representative in proceedings before the Hearing Officer.

“Person” means any individual or his agent, firm, partnership, association or corporation, or agent of the aforementioned groups, or this state or its agencies or political subdivisions.

“Permanent Access” means access required to meet state and local requirements for access to a piece, dedicated by plat, record of survey, or easement for the purpose of providing access to the boundaries of a property.

“Program” means the National Flood Insurance Program authorized by 42 U.S.C. 4001-4128.

“Program Deficiency” means a defect in a community’s floodplain management regulations or administrative procedures that impairs effective implementation of those floodplain management regulations or of the NFIP standards.

“Rain Garden” means constructed depression area used as a landscape tool to improve water quality and reduce site runoff. The depression shall be equal in size to fifteen percent of the impervious area constructed on the lot. The area shall be depressed six inches below the lowest surrounding grade, with runoff from the impervious area(s) directed to the depression. The depression shall have a minimum of three inches of compost or comparable organic material added to the soil and tilled to a depth of 12 inches below the bottom of the depression. After this addition, the bottom of the depression should meet the aforementioned depth requirement. The depression shall then to be planted with a variety of native plants, including trees, shrubs, forbs, grasses, or with other low water use plants.

“Reach” means a hydraulic engineering term used to describe longitudinal segments of a stream or watercourse. In an urban area an example of a reach would be the segment of a watercourse between two consecutive bridge crossings.

“Reclamation Plan” means a plan for sand and gravel operations which defines hydrologic and hydraulic constraints; outlines methods of extraction, operation and site development;

and provides for backfilling procedures and final site reclamation pursuant to the Arizona Aggregate Mined Land Reclamation Act in Title 27 of the Arizona Revised Statutes (A.R.S. §27-1201, et seq.).

“Recreational Vehicle” means a vehicle which is:

- a. Built on a single chassis;
- b. 400 square feet or less when measured at the largest horizontal projection
- c. Designed to be self-propelled or permanently towable by a light duty truck; and
- d. Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

“Regulatory Discharge” means a peak discharge during a 100-year flood event of 50 cubic feet per second or greater.

“Regulatory Flood Elevation” means an elevation of at least two feet above the base flood elevation for a watercourse for which the base flood elevation is either mapped or determined, and shall be as determined by the criteria developed by the Director of the Arizona Department of Water Resources for all other watercourses.

“Regulatory Floodplain or Flood-prone Area” means the geologic floodplain associated with a watercourse with a base flood peak discharge of fifty cubic feet per second (cfs) or greater or that area where drainage is or may be restricted by man-made structures and that would be inundated by the base flood where the base flood peak discharge of the flow is fifty cubic feet per second (cfs) or greater, or those areas which are subject to sheet flooding, or those areas mapped as being flood prone on existing recorded subdivision plats.

“Regulatory 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 increasing the water surface elevation more than one foot. For regulatory watercourses with a discharge during the base flood greater than 1,500 cubic feet per second (cfs) where either no detailed studies have been prepared or the floodway has not been identified, the floodway limits shall be set back from each side of the primary channel bank a distance equal to four (4) times the main channel width.

“Remediation” means returning a site that has been disturbed to an acceptable condition of flow conveyance, erosion control, and environmental compliance by actions of the property owner or their representative.

“Remedy a Violation” means to bring the structure or other development into compliance with State or local floodplain management regulations, or, if this is not possible, to reduce the impacts of its noncompliance. Ways that impacts may be reduced include protecting the structure or other affected development from flood damages, implementing the enforcement provisions of the Ordinance or otherwise deterring future similar violations, or reducing Federal financial exposure with regard to the structure or other development.

“Repetitive Loss Structure” means a structure, covered by a contract for flood insurance issued pursuant to the National Flood Insurance Act, that has incurred flood-related damage on two occasions during any 10-year period ending on the date of the event for which a second claim is made, in which the cost of repairing the flood damage, on average,

equaled or exceeded 24.5% of the market value of the structure at the time of each such flood event.

“Retention System” means a type of flood control system which stops the downstream progress of floodwaters by employing methods of total containment.

“Riparian Habitat” means that area containing plant communities, mainly characterized by hydrophilic plant varieties, located within and adjacent to the channel and geologic floodplain of a river system, stream or wash. The extent of the plant communities may or may not include the regulatory floodplain. The boundaries for riparian habitat are designated where defined by mapping of Riparian Habitat that is adopted by the Board of Directors by resolution, as Appendix B of this Ordinance.

“Riparian Vegetation” mean vegetation found within Riparian Habitats.

“Riverine” means relating to, formed by, or resembling a river (including tributaries), stream, brook, etc.

“Sedimentation Hazard” means the hazard created by the deposition of water born sediments during times of flooding. For example, sediment deposited that increases the elevation of the land surface, decreasing the free board of a structure.

“Setback” means the minimum horizontal distance between a structure and a watercourse. On each side of a watercourse, the setback is measured from the top edge of the highest channel bank or edge of the base flood’s water surface elevation, whichever is closer to the channel centerline.

“Sheet Flow Area” means those areas which are subject to flooding with depths of one-half foot or greater during the base flood event, where a clearly defined channel does not exist and the path of the flooding is often unpredictable and indeterminate. Also see “Area of shallow flooding”.

- a. FEMA designated Zone B or Shaded Zone X, if subject to a depth of flow of equal to or more than 6 inches during the regulatory flow; and
- b. Areas that the Floodplain Administrator, using the best available data, has determined may be subject to sheet flooding during the regulatory flood.

“Special Flood Hazard Area” means an area in the floodplain subject to 1% or greater chance of flooding in any given year, having special flood or flood related erosion hazards, and shown on a FIRM as Zone A, AO, AE, A99, or AH.

“Start of Construction” includes substantial improvement and other proposed new development, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement was within 180 calendar days of the permit date. The actual start means either the first permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading, filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or part of the main structure. For a

substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

“State Standards” means documents defining standards for floodplain management as adopted by the Director of the Arizona Department of Water Resources pursuant to A.R.S. 48-3605(A).

“Stop Work Order” see Cease and Desist Order.

“Structure” means anything constructed or erected, the use of which requires location on the ground or attachment to some foundation having a location on the ground. Structures include walled and roofed buildings, gas or liquid storage tanks that are principally above ground, and manufactured homes. Habitable structures are those structures intended for human occupation, whether utilized on a full or part-time basis. For purposes of this Ordinance, a private drainage improvement is considered a structure.

“Substantial Damage” means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damage condition would equal or exceed 49 percent of the market value of the structure before the damage occurred.

“Substantial Improvement” means any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 49 percent of the market value of the structure before the “start of construction” of the improvement. This term includes structures which have incurred “substantial damage”, regardless of the actual repair work performed. The term does not, however, include either:

- a. Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions; or
- b. Any alteration of a “historic structure”, provided that the alteration will not preclude the structure’s continued designation as a “historic structure”.

“Technical Review Committee” means the Flood Control District Advisory Committee that, when requested by the Board, provides review of technical matters concerning interpretation and enforcement of this Ordinance.

“Variance” means a grant of relief from the requirements of this Ordinance which permits construction in a manner that would otherwise be prohibited by this Ordinance.

“Violation” means the failure of a structure or other development to be fully compliant with the community’s floodplain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in this Ordinance is presumed to be in violation until such time as that documentation is provided.

“Waiver by the Floodplain Administrator” means to modify or substitute one technical requirements or standard for another where provisions in this Ordinance allow the Floodplain Administrator to exercise technical judgment in establishing permit requirements, for example, waiving erosion setback requirements based on geotechnical evidence.

“Water Surface Elevation” means the height, in relation to the North American Vertical Datum (NAVD) of 1988, (or other datum, where specified) of floods of various magnitudes and frequencies in the floodplains of riverine areas.

“Watercourse” means any lake, river, stream, creek, wash, arroyo or other body of water or channel having banks and bed through which waters flow at least periodically.

“Watercourse Master Plan” means a hydraulic plan for a watercourse that examines the cumulative impacts of existing development and future encroachment in the floodplain and future development in the watershed on potential flood damages, and establishes technical criteria for subsequent development so as to minimize potential flood damages for all flood events up to and including the one hundred-year flood.

“Watershed” means the drainage area above any point on a watercourse.

“Wildfire Protection Zone” means a clear space around the perimeter of a structure meant to provide a defensible space around a structure so it may be protected during a wildfire event. This space is to be no more than 30 feet from the perimeter edge of a structure.

“Written Notice” means written communication by the Floodplain Administrator or their designee, on the letter head or forms of the Santa Cruz County Flood Control District. A Written Notice is considered to be delivered five business days after the day it is placed within the mail.

SECTION 3.0
GENERAL PROVISIONS

- 3.1 LAND TO WHICH THIS ORDINANCE APPLIES.** This Ordinance shall apply to all areas of special flood hazards and other regulatory floodplains, floodways, erosion hazard areas, public or private lands, subdivisions, commercial and industrial developments, as defined herein, within the boundaries of Santa Cruz County except those incorporated cities and towns which have adopted an Ordinance or a resolution in accordance with A.R.S. §48-3610.
- 3.2 AREAS OF SPECIAL FLOOD HAZARD AND REGULATORY FLOODPLAINS, FLOODWAYS.**
- A. The boundaries of the special flood hazard areas and regulatory floodplains and floodways for which adequate hydrologic and hydraulic data is available for their delineation on maps shall be shown on maps maintained by the Santa Cruz County Floodplain Administrator.
 - B. The areas of special flood hazard identified by the Federal Insurance Administration (FIA) of the Federal Emergency Management Agency (FEMA) in a scientific and engineering report entitled “The Flood Insurance Study for Santa Cruz County and Incorporated Areas, December 2, 2011” with accompanying Flood Insurance Rate Maps (FIRMs), and all subsequent amendments and/or revisions, are hereby adopted by reference and declared to be a part of this Ordinance. This Flood Insurance Study (FIS) and attendant mapping, including all amendments and revisions thereof, is the minimum area of applicability of this Ordinance and may be supplemented by studies for other areas which allow implementation of this Ordinance and which are recommended to the Floodplain Board by the Floodplain Administrator. The Board, within its area of jurisdiction shall delineate (or by rule require developers of land to delineate) for areas where development is ongoing or imminent, and thereafter as development becomes imminent, floodplains consistent with the criteria developed by the Federal Emergency Management Agency and the Director of Water Resources. The FIS, FIRMs and FBFMs are on file at Santa Cruz County Public Works Department, 275 Rio Rico Drive, Rio Rico, Arizona.
 - C. Due to continuously and episodically changing hydrologic and hydraulic conditions on the watercourses within Santa Cruz County, base flood peak discharges, flow volumes, and associated special flood hazard areas, regulatory floodplain and erosion hazard areas are continuously subject to revision. At a minimum, base flood values will meet or exceed the current values established by FEMA, and reflect historic flood information and general, current, watershed conditions.
 - D. Floodplain mapping utilizing standard accepted methodologies and practices, showing the regulatory floodplain and erosion hazard areas may be prepared under the direction of the Floodplain Administrator. Upon approval by the Floodplain Administrator, these maps shall be the regulatory floodplain and erosion hazard areas governed by this Ordinance. Mapping prepared by an Arizona Registered Professional Engineer may, upon review and approval by the District, supersede the mapping generated under the direction of the Floodplain Administrator.

- E. In those areas where the regulatory floodplain and erosion hazard areas are not delineated pursuant to Sections 3.2.B and 3.2.D, and upon request for a permit, the Floodplain Administrator may require the land owner to establish the regulatory floodplain and floodway limits through a hydrologic and hydraulic study prepared by an Arizona Registered Professional Engineer to demonstrate a safe building site.
- F. In those areas not mapped by FEMA, where a hydrologic and hydraulic study has been prepared by an Arizona Registered Professional Engineer which delineates the regulatory floodplains, floodways and erosion hazard areas, and has been approved by the Floodplain Administrator, the delineation of those boundaries shown within the study shall be the regulatory floodplain, floodway and erosion hazard areas governed by this Ordinance.
- G. Construction of any improvement which changes the configuration of the delineated floodplain contained within the Flood Insurance Study, whether upstream of, downstream from or adjacent to the parcel under development, the owner shall provide the Santa Cruz County Flood Control District a new delineation of all regulatory floodplains affected by the improvement, prior to the release of assurances for subdivisions or certificate of occupancy for development plans. The new delineation and reports shall be prepared in conformance with the requirements of FEMA, the Director of the Arizona Department of Water Resources and this Ordinance. The owner, or the owner's engineer, will submit the required flood insurance study information to FEMA. The owner shall be responsible for providing the Santa Cruz County Flood Control District a copy of all correspondence with FEMA.
- H. In areas where conflicts in flood hazard identification mapping occur, the more restrictive of the approved/adopted flood hazard identification mapping will take precedent, unless approved otherwise by the Floodplain Administrator. At no time shall the mapping be less restrictive than the effective Flood Insurance Rate Map (FIRM) or Digital Flood Insurance Rate Map (DFIRM).

3.3 COMPLIANCE. All development of land, construction of residential, commercial or industrial structures, repairs, modifications or additions to said structures, or future development within delineated floodplain areas is subject to the terms of this Ordinance and other applicable regulations.

3.4 ABROGATION AND GREATER RESTRICTIONS. This Ordinance is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this Ordinance and another ordinance, easement, covenant, or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

3.5 INTERPRETATION. In the interpretation and application of this Ordinance, all provisions shall be:

- A. Considered as minimum requirements;
- B. Liberally construed in favor of the governing body; and,
- C. Deemed neither to limit nor repeal any other powers granted under state statutes.

3.6 WARNING AND DISCLAIMER OF LIABILITY. The degree of flood protection required by this Ordinance is considered the minimum 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, regulatory floodplains, erosion hazard areas or uses permitted within such areas will be free from flooding or flood damages. This Ordinance shall not create liability on the part of Santa Cruz County, any officer or employee thereof, the State of Arizona, the Federal Insurance Administration, or the Federal Emergency Management Agency, for any flood damages that result from reliance on this Ordinance or any administrative decision lawfully made there under.

3.7 STATUTORY EXEMPTIONS

- A. In accordance with A.R.S. §48-3609.H, unless expressly provided, this and any regulation adopted pursuant to this article do not affect:
1. Existing legal uses of property or the right to continuation of such legal use. However, if a nonconforming use of land or a building or structure is discontinued for twelve months, such that it becomes abandoned land or an abandoned structure, or destroyed to an extent of greater than or equal to forty-nine percent of its market value, as determined by a competent appraiser, any further use shall comply with this Ordinance and regulations of the county. This does not preclude the requirement for a Floodplain Use Permit to track the valuation of changes to existing nonconforming structures, even if the proposed alterations, modifications, or repairs does not exceed forty-nine percent of the market value.
 2. Reasonable repair or alteration of non-structural elements of a property for which the property was legally used on August 3, 1984, or on the date any regulations affecting such property takes effect, except that any alteration, addition or repair, either singlerally or in combination for the life of the structure, to a nonconforming building or structure which would result in increasing its flood damage potential by forty-nine percent or more shall be either flood proofed or elevated to or above the regulatory flood elevation. A Floodplain Use Permit is required to track structural repairs, alterations, and/or additions to ensure compliance with this Ordinance.
 3. Reasonable repair of structures constructed with the written authorization required by A.R.S. §48-3613.
 4. Facilities constructed or installed pursuant to a certificate of environmental compatibility issued pursuant to title 40, chapter 2, article 6.2.
- B. In accordance with A.R.S. §48-3613, before construction of the following may begin, plans for the construction must be submitted to the Floodplain Administrator for review and comment; however, the following shall not be prohibited and shall not require a floodplain use permit or other written authorization:
1. The construction of bridges, culverts, dikes and other structures necessary to the construction of public highways, public roads and streets intersecting or crossing a watercourse.

2. The construction of storage dams for watering livestock or wildlife, structures on banks of a watercourse to prevent erosion of or damage to adjoining land if the structure will not divert, retard or obstruct the natural channel of the watercourse or dams for the conservation of floodwaters as permitted by A.R.S. title 45, chapter 6.
 3. Construction of tailing dams and waste disposal areas for use in connection with mining and metallurgical operations, if the structure will not divert, retard or obstruct the natural channel of the water course. This paragraph does not exempt those sand and gravel operations which will divert, retard or obstruct the flow of waters in any watercourse from complying with and acquiring authorization from the Floodplain Board pursuant to regulations adopted by the Floodplain Board under this Ordinance.
 4. Other construction if it is determined by the Board that written authorization is unnecessary.
 5. Construction by any flood control district, county, city, town or other political subdivision exercising powers granted to it under Title 48, chapter 21, article 1 of A.R.S. §48-3601.
 6. The construction of streams, waterways, lakes and other auxiliary facilities in conjunction with development of public parks and recreation facilities by a public agency or political subdivision.
 7. The construction and erection of poles, towers, foundations, support structures, guy wires, and other facilities related to power transmission, excepting power generation, substations and transformers, as constructed by any utility whether a public service corporation or a political subdivision.
- C. This section shall not exempt any person from obtaining a floodplain use permit as set forth in this Ordinance for any use which alters, diverts, retards or obstructs the flow of water or creates a danger or hazard to life or property in the area.
- D. These exemptions do not preclude any person from liability if that person's actions increase flood hazards to any other person or property.
- E. Nonconforming uses are permitted when;
1. Improvements, or additions to, or reconstruction, or repair of Existing Nonconforming Uses;
 - a. Any structure which is repaired, reconstructed, or substantially improved, whether by an individual event or cumulatively, at a cost equal to or exceeding forty-nine (49) percent of the market value of the structure only, either (a) before the improvement or repair is started; or (b) if the structure has been damaged and is being restored, before the damage occurred, shall conform to the provisions of this Ordinance. For the purpose of determining the value of any such construction, repair or alteration, the normal retail value of the materials and the reasonable value of the labor performed shall be used. No person shall repair or alter property in a piecemeal manner so as to avoid the provisions of this section. Any and all additions, modifications,

improvements, or repairs shall require a Floodplain Use Permit in order to track the value of said additions, modifications, improvements, or repairs to track when a Substantial Improvement occurs.

- b. For the purpose of this section, substantial improvement is considered to occur when the first alteration of any wall, ceiling, floor or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure. The term does not, however, include any project for improvement of a structure to comply with existing state or local health, sanitary or safety code specifications which are solely necessary to assure safe living conditions.
 - c. Improvements, repairs, reconstruction or substantial improvements to existing historic structures are permitted provided the improvement or alteration would not preclude the structure's continued designation as a historic structure.
2. In the event that the use of a nonconforming use is discontinued for a period of twelve consecutive months, such that it meets the definition of Abandoned Land or Abandoned Structure in Section 2, any further use thereof shall be in conformity with the provisions of this Ordinance.
 3. The sum values of separate repairs, additions, remodels, and/or reconstruction qualify as a cumulative substantial damage or cumulative substantial improvement for the life of the structure provided said structure has not been brought into conformance with this Ordinance and the effective floodplain mapping.

3.8 DECLARATION OF PUBLIC NUISANCE. Every new structure, building, fill, excavation or development located or maintained within any area of special flood hazard, regulatory floodplain, or erosion hazard area after August 8, 1973, in violation of this Ordinance is a public nuisance per se and may be abated, prevented or restrained by action of this political subdivision.

3.9 UNLAWFUL ACTS

- A. It is unlawful for a person to engage in any development or to divert, retard or obstruct the flow of waters in a watercourse without securing the written authorization required by A.R.S. § 48-3613 and/or Section 4.1 of this Ordinance. Where the watercourse is a regulatory floodplain, it is unlawful to engage in any development affecting the flow of waters without securing written authorization required by A.R.S. § 48-3613.
- B. It is unlawful for any person, firm, or corporation to violate any of the provisions of this Ordinance.
- C. Any person found guilty of violating any provision of this ordinance shall be guilty of a misdemeanor. Each day that a violation continues shall be a separate offense punishable as hereinabove described.

3.10 ABATEMENT OF VIOLATIONS. Within 30 calendar days of discovery of a violation of this Ordinance, the Floodplain Administrator will notify the property owner where the violation has taken place, and provide a minimum of 30 calendar days to

rectify the violation. Failure to rectify the violation within the time frame will then result in a Notice of Violation and shall either;

- A. Take any necessary action to effect the abatement of such violation; or
- B. Order the owner of the property upon which the violation exists to provide whatever additional information may be required for the Floodplain Administrator's determination. Such information must be provided to the Floodplain Administrator within 30 days of such an order; or
- C. Submit to the Administrator of the Federal Insurance Administration a declaration for denial of insurance, stating that the property is in violation of a cited state or local law, regulation, or Ordinance, pursuant to section 1316 of the National Flood Insurance act; or
- D. Request the Floodplain Board of Santa Cruz County issue a variance to this Ordinance in accordance with the provisions of Section 6.0 herein; or

3.11 REMEDIES FOR DAMAGES - ACTIONS AUTHORIZED

- A. In addition to other penalties or remedies otherwise provided by law, the state of Arizona, any political subdivision thereof, or any person who may be damaged as a result of the diversion, retardation or obstruction of water within the regulatory floodplain, shall have the right to commence, maintain and prosecute an appropriate action or pursue any remedy to enjoin, abate or otherwise prevent any person from violating or continuing to violate any provisions of this Ordinance.
- B. If a person is found to be in violation of this section, the court shall require the violator to either comply with this section or remove the obstruction and restore the watercourse to its original state. The court may also award such monetary damages as are appropriate to the injured parties resulting from the violation including reasonable costs and attorney fees.

3.12 REMOVAL OF VIOLATION AUTHORIZED WHEN. Any structure, encroachment or work constructed without a Floodplain Use Permit, or which is in violation of the terms of a permit, which represents an immediate danger to life or property may be removed immediately, by the Floodplain Administrator, at the expense of the property owner. The Floodplain Administrator shall make a good faith effort to provide the property owner with written notice prior to this action, but shall not be limited by the need for written notice during emergency actions.

3.13 RECOVERY OF ADMINISTRATIVE AND OTHER COSTS. Santa Cruz County Flood Control District shall be entitled to recover all administrative, engineering and legal costs, as well as actual costs to remove or modify the structure, encroachment or any other work that is in violation of this Ordinance.

3.14 SEVERABILITY. This Ordinance and the various parts thereof are hereby declared to be severable. Should any section of this Ordinance be declared by the courts to be unconstitutional or invalid, such decision shall not affect the validity of the Ordinance as a whole, or any portion thereof other than the section so declared to be unconstitutional or invalid.

SECTION 4.0
ADMINISTRATION

- 4.1 DESIGNATION OF THE FLOODPLAIN ADMINISTRATOR.** The General Manager of the Santa Cruz County County-Wide Flood Control District and Floodplain Administration (District) or his designee is hereby appointed to administer, implement, and enforce this Ordinance by granting or denying any floodplain use permits in accordance with its provisions.
- 4.2 DUTIES AND RESPONSIBILITIES OF THE FLOODPLAIN ADMINISTRATOR.** Duties of the Floodplain Administrator shall include, but not be limited to:
- A. Review all development permits to determine that:
 - 1. The permit requirements of this Ordinance have been satisfied;
 - 2. All other required state and federal permits have been obtained;
 - 3. The site is reasonably safe from flooding;
 - 4. The proposed development does not adversely affect the carrying capacity of areas where base flood elevations have been determined but a floodway has not been designated;
 - 5. The proposed development qualifies as a Pre-Existing Non-Conforming Use, and tracking the value of improvements, repairs, and/or modifications to said uses.
 - B. Substantial Improvement and Substantial Damage Procedures Santa Cruz County will estimate the Market Value using the Full Cash assessed value of your structure excluding the land value from the Santa Cruz County Assessor's Office for the current tax year. Once a permit is issued, this value is locked in until a minimum of ten (10) years has passed.
 - C. Use of other base flood data. When base flood elevation data has not been provided in accordance with Section 3.2, the Floodplain Administrator shall obtain, review, and reasonably utilize any base flood elevation data available from a federal, state or other source, in order to administer Section 5.0. Any such information shall be consistent with the requirements of the Federal Emergency Management Agency and the Director of Water Resources.
 - D. Obtain and maintain for public inspection and make available the following certifications, as needed for Flood Insurance Policies and/or other regulatory requirements:
 - 1. The certified regulatory elevation required in Section 5.1.C.1;
 - 2. The certification requirement in Section 5.1.C.2;
 - 3. The flood proofing certification required in Section 5.1.C.3;
 - 4. The certification required in Section 5.1.C.4;
 - 5. The certified elevation required in Section 5.5.G; and

6. Maintain a record of all variance actions, including justification for their issuance, and report such variances issued in its biennial report submitted to the Federal Emergency Management Agency.
 7. Permit records for repair of flood-related damage to structures on a cumulative basis over the life of the structure.
 8. Permit records for improvements to structures on a cumulative basis over the life of the structure.
- E. Whenever a watercourse is to be altered or relocated:
1. Notify adjacent communities and the Arizona Department of Water Resources prior to such alteration or relocation of a regulatory watercourse, and submit evidence of such notification to the Federal Insurance Administration through appropriate means;
 2. Require the flood carrying capacity of the altered or relocated portion of said watercourse is, at a minimum, maintained.
- F. Ensure that within one hundred twenty calendar days after completion of construction of any flood control protective works which changes the rate of flow during the regulatory flood event or the configuration of the floodplain upstream or downstream from or adjacent to the project, or the base flood elevations, the person or agency responsible for installation of the project shall provide to the governing bodies of all jurisdictions, to include FEMA, affected by the project a new delineation of all floodplains affected by the project. The new delineation shall be done according to the criteria adopted by the Director of Water Resources.
- G. Advise in writing and provide a copy of any development plan to any city or town having assumed jurisdiction over its floodplains in accordance with A.R.S. §48-3610, of any application for a floodplain use permit or variance to develop land in a regulatory floodplain, floodway or erosion hazard area within one mile of the boundary between the District's area of jurisdiction and the jurisdiction of that city or town. The District shall also advise any city or town in writing and provide a copy of any development plan of any major development proposed within a regulatory floodplain, floodway or erosion hazard area which could affect regulatory floodplains, floodways, erosion hazard areas or watercourses within that city's or town's area of jurisdiction. Written notice and a copy of the plan of development shall be sent to any adjacent jurisdiction no later than five business days after having been received by the District.
- H. Make interpretations where needed, as to the exact location of the boundaries of the areas of special flood hazards and/or regulatory floodplains, floodways and erosion hazard areas (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in Section 6.0. In the event presently platted or mapped special flood hazards and/or regulatory floodplains, floodways and erosion hazard areas are different than previously approved special flood hazards and/or regulatory

floodplains, floodways and erosion hazard areas, the most recent approved information shall apply.

- I. Take actions on violations of this Ordinance as required in Sections 3.9 through 3.13 herein.
- J. Notify the Administrator and Director of Emergency Management, Arizona Department of Water Resources, and FEMA of acquisition by means of annexation, incorporation, or otherwise, of additional areas of jurisdiction.
- K. Collection of Fees as designated and approved by the Floodplain Board of Directors.
- L. Develop and/or approve Standards and/or Procedures for use by the Santa Cruz County Flood Control District in enforcing, administering and/or interpreting the requirements and restrictions of this Ordinance.
- M. Complete and submit a Biennial Report to the Federal Emergency Management Agency.

4.3 ESTABLISHMENT OF FLOODPLAIN USE PERMIT.

- A. Floodplain Use Permit Required A Floodplain Use Permit shall be obtained before construction or development, including grading and/or clearing of any lands or riparian habitat, placement of manufactured homes, structures, accessory structures, construction of walls or fences, and additions, modifications or repairs to an existing structure, begins within any area of special flood hazard or regulatory floodplain established in Section 3.2 or within erosion hazard areas or riparian habitat as described in Section 5.10. A Floodplain Use Permit is not required for minor work on an existing structure that does not expand the footprint of the structure, or does not involve structural components of the building, and where the value of the work (materials and labor) does not equal or exceed five percent (5%) of the Santa Cruz County Assessor's Full Cash Value at the time the application is applied for. Application for a Floodplain Use Permit shall be made on forms furnished by the Floodplain Administrator. For Critical Facilities/Critical Structures, a Floodplain Use Permit shall be required prior to the start of any construction, development, addition, repair, or modification within any area of special flood hazard, regulatory floodplain, or five hundred year floodplain or erosion hazard area.
- B. Permit Information Requirements. Upon receiving an application for a Floodplain Use Permit, the Floodplain Administrator may require, where applicable, the applicant submit:
 - 1. Plans in duplicate, with digital copy in PDF, drawn to scale showing the nature, location, dimensions, and elevation of the area in question; existing or proposed structures, fill, storage of materials, drainage facilities; and the location of the foregoing. Specifically, the following information is required:
 - a. Proposed elevation in relation to mean sea level (1988 North American Vertical Datum), of the lowest floor (including basement or garage) of all structures, in Zone AO, elevation of existing highest adjacent natural grade and proposed elevation of lowest floor of all structures.

- b. Proposed elevation in relation to mean sea level to which any non-residential structure will be flood proofed;
 - c. Certification by a registered professional engineer that the flood proofing methods for any non-residential structure meet the flood proofing criteria in Section 5.1.C.3; and,
 - d. Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.
2. Where special circumstances necessitate more detailed information, the applicant must furnish any or all of the following as deemed necessary by the Floodplain Administrator for the evaluation of the safety of the proposed use, the effects of the proposed use upon flood flows, and other factors necessary to render a decision on the suitability of the proposed use:
- a. One or more cross-sections showing the existing elevations of the channel, elevation of land areas adjoining each side of the channel, cross-sectional areas to be occupied by the proposed development, and high water information (if available);
 - b. A profile showing the elevation and slope of the bottom of the channel or flow line of the stream or watercourse;
 - c. Specifications for building construction and materials, flood proofing, filling, excavating, channel improvements, storage of materials, water supply, sanitary facilities;
 - d. An engineering study, including a digital copy of the hydrologic/hydraulic models and output, prepared by an Arizona registered professional engineer outlining the effects the development will have on the flow of water through the area being developed and the surrounding areas. This study will be for the purpose of evaluating possible flood hazards and shall, where necessary, include consideration of the effects of the development on flood heights, water velocities, direction of flow, sedimentation and /or erosion, volume of flows, channel shape and size, type of channel banks and other items that may be pertinent, and the resultant effects on structures, land, banks, etc. for the adjacent regulatory floodplain and the surrounding area.
3. All new development proposals (including splits by record of survey, manufacture home parks and subdivisions) greater than or equal to 50 units or 5 acres, whichever is the lesser, affected by a Special Flood Hazard Area Zone A, as shown on the effective Flood Insurance Rate Maps, shall:
- a. Identify the area of special flood hazard and the elevation of the base flood.
 - b. Identify on the final plans the elevation(s) of the proposed structure(s) and pads. If the site is filled above the base flood elevation, the final lowest floor and grade elevations shall be certified by a registered professional engineer or surveyor and provided to the Floodplain Administrator. Compensatory flood storage is to be provided to account for any and all fill within the floodplain
4. Any other information as deemed pertinent by the Floodplain Administrator.

C. Permit Issuance Conditions, Notice of Development.

1. It shall be the duty of the Floodplain Administrator, through the County Wide Flood Control District and Floodplain Administration Office of Santa Cruz County (also known as the Santa Cruz County Flood Control District) to issue the Floodplain Use Permits required by this section. The Floodplain Administrator may request, and shall receive, so far as may be necessary in the discharge of his duties, the assistance and cooperation of all departments, agencies, officials and public employees of Santa Cruz County in the enforcement of this Ordinance. No license, permit, or other similar approval for any development which would be in conflict with the provisions of this Ordinance shall be issued by any department, official or employee of the county; and any such license, permit or approval, if issued in conflict with the provisions of this Ordinance, shall be null and void.
2. The District shall advise any city or town which has assumed jurisdiction over its regulatory floodplains in accordance with Arizona Revised Statute Section §48-3610 in writing, and provide a copy of any development plan or any application which has been filed within the County for a Floodplain Use Permit or variance to develop land in a regulatory floodplain, floodway or erosion hazard area within one mile of the boundary between the District's area of jurisdiction and the jurisdiction of that city or town. The District shall also advise any city or town in writing and provide a copy of any development plan of any major development proposed within a regulatory floodplain, floodway or erosion hazard area which could affect regulatory floodplains, floodways, erosion hazard areas or watercourses within that city's or town's area of jurisdiction. Written notice and a copy of the plan of development shall be sent to any adjacent jurisdiction no later than five business days after having been received by the District.

D. Specific Permit Conditions Authorized. Any Floodplain Use Permit may be subject to conditions or restrictions designed to reduce or mitigate the potential danger or hazard to life or property resulting from development within the regulatory floodplain, floodway, or erosion hazard areas, depending on site specific conditions. The applicant may be required to execute deed restrictions running with the land or be required to post performance bonds; assurances or such other security as may be appropriate and necessary to assure the performance of the conditions or restrictions that may be imposed. Due to the site specific nature of flooding, it is not possible for all conditions or possible conditions to be listed in any one document. Examples of the conditions that may be imposed include, but are not limited to, the following:

1. Modification of waste disposal and water supply facilities;
2. Limitations on periods of use and hours of operation;
3. Institution of operation controls;
4. Requirements for construction of channel modifications, dikes, levees, and other protective measures;
5. Elevation of the lowest floor, including attached garages, to, or above, the regulatory floor elevation;
6. Bank protection or armor plating on any proposed fill;

7. Compensatory Storage for any fill utilized within the regulatory floodplain to elevate any structure or improvement, or elevate the ground levels around any structure or improvement. Compensatory storage shall be at hydraulically equivalent sites at a ratio of 1.5 (storage) to 1 (fill).
 8. Flood proofing measures for non-residential structures such as the following, which shall be designed to be consistent with an elevation one-half foot greater than the regulatory flood elevation for the particular area, flood velocities, durations, rate of rise, hydrostatic and hydrodynamic forces, and other factors associated with the base flood. The Floodplain Administrator may require the applicant submit a plan or document certified by an Arizona registered professional civil engineer that the flood proofing measures are consistent with an elevation one-half foot greater than the regulatory flood elevation and associated flood factors for the particular area. Examples of flood proofing measures that may be required include, but are not limited to:
 - a. Anchorage to resist floatation and lateral movement;
 - b. Installation of watertight doors, bulkheads and shutters;
 - c. Reinforcement of walls to resist water pressure;
 - d. Use of paint, membrane or mortars to reduce seepage of water through walls;
 - e. Addition of mass or weight to structures to resist floatation;
 - f. Installation of pumps to lower water levels in structures;
 - g. Construction of water supply and waste treatment systems so as to prevent the entrance of floodwaters;
 - h. Pumping facilities for subsurface external foundation wall and basement floor pressures;
 - i. Construction designed to resist rupture or collapse caused by water pressure or floating debris;
 - j. Cutoff valves on sewer lines or the elimination of gravity flow basement drains.
- E. Permit Denial Conditions. No permit shall be issued for any development which is not in conformance with this Ordinance or any provision of law relating to such development. A Floodplain Use Permit may be denied if the proposed development constitutes a danger or hazard to life or property. In making such a determination, the Floodplain Administrator shall consider the following factors:
1. The danger to life, person or property due to increased flood heights, velocities, or redirection of flow caused by the proposed development;
 2. The danger that materials may be swept on to other lands;
 3. The proposed water supply and/or sanitation systems of any development and the ability of these systems to prevent disease, contamination and unsanitary conditions if they should be flooded or eroded;

4. The susceptibility of the proposed development or its contents to flood or erosion damage and the effects of such damage on the individual owners;
 5. The availability of alternative locations for the proposed use on the same property which are least likely to be or are not subject to flooding or erosion;
 6. The compatibility of the proposed use with existing regulatory floodplain uses and with floodplain management programs anticipated in the foreseeable future;
 7. The relationship of the proposed use to any comprehensive plan and floodplain management program for the area;
 8. The access to the property line in times of regulatory flooding for conventional and emergency vehicles;
 9. The expected heights, velocity, duration, rate of rise and sediment transport of the floodwaters expected at the site under both existing and proposed conditions;
 10. Documentation that all necessary permits have been obtained or applied for from state and federal agencies;
 11. Such other factors which are relevant to the purposes of this Ordinance.
- F. Permit Revocation. For failure to comply with the terms of the Floodplain Use Permit, Santa Cruz County shall be entitled to revoke the Floodplain Use Permit upon written notice by registered mail or personal delivery to the applicant citing the reasons for revocation. Notice shall be considered received five business days after mailing. The person holding the Floodplain Use Permit may request a hearing before the Floodplain Administrator, where the merits of and reasons for revoking the permit are heard, within ten business days of the receipt of notice or personal delivery. After considering the issues and facts presented during the hearing, the Floodplain Administrator may revoke a previously issued Floodplain Use Permit. If no request for a hearing is made within ten business days from the receipt of notice or personal delivery, the permit shall be considered revoked. The applicant or any affected party may appeal the decision of the Floodplain Administrator by requesting a hearing before the Floodplain Board in accordance with Section 6 of this Ordinance.
- G. Certification of Elevation. Prior to either pouring of the first slab, or the finished floor inspection, the applicant shall submit to the Floodplain Administrator an initial certification of elevation, in compliance with the provisions of the Floodplain Use Permit, prepared by either an Arizona registered land surveyor or civil engineer. A final certificate must be prepared prior to the issuance of the Certificate of Occupancy and after all construction activities on said structure have been completed. Such certification shall be maintained in the office of the Santa Cruz County County-Wide Flood Control District.

SECTION 5.0

PROVISIONS FOR FLOOD HAZARD REDUCTION

5.1 STANDARDS OF CONSTRUCTION. In all areas of special flood hazards and regulatory floodplains and erosion hazard areas, the following standards are required based upon the 100-year flood event:

A. Anchoring

1. All new construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure due to the forces exerted by the base flood, unless properly elevated.
2. All manufactured homes shall meet the anchoring standards of Section 5.6.B.

B. Construction Materials and Methods

1. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
2. All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.
3. All new construction, substantial improvement and other proposed new development shall be constructed with electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.
4. Require adequate drainage paths around structures to help guide floodwaters around and away from proposed or existing structures.

C. Elevation and Flood proofing

1. New construction and substantial improvement of any residential structure and attached electrical and/or mechanical services shall have the lowest floor, including basements, elevated to or above the regulatory flood elevation. New construction and substantial improvement of any structure located within an area where the floodplain is physically confined within canyon areas is to be elevated a minimum of two feet higher than the regulatory flood elevation. Nonresidential structures may meet the standards in Section 5.1.C.3. Upon the completion of the structure, the elevation of the lowest floor, including basement, shall be certified by an Arizona Registered Civil Engineer or Registered Land Surveyor and provided to the Floodplain Administrator.
2. New construction and substantial improvement of any residential structure and attached electrical and/or mechanical services in Zone AO shall have the lowest floor, including basement, higher than the highest adjacent, undisturbed, natural grade by at least two feet higher than the depth number on the FIRM, or at least four feet if no depth number is specified. Nonresidential structures may meet the standards in Section 5.1.C.3. Upon the completion of the structure, the elevation of the lowest floor, including basement, shall be certified by an Arizona

Registered Civil Engineer or land surveyor and provided to the Floodplain Administrator.

3. Nonresidential construction, new or substantial improvement of buildings used for parking, storage, and/or building access, where the floor is at or below the regulatory flood elevation and the structure is to be water tight, shall either be elevated in conformance with Section 5.1.C.1 or 2., or together with attendant utility and sanitary facilities;
 - a. Be flood proofed so that an elevation one-half foot greater than the regulatory 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; and
 - c. Be certified by an Arizona Registered Civil Engineer that the standards of this subsection are satisfied. Such certifications shall be provided to the Floodplain Administrator.
4. For all new construction and substantial improvements of nonresidential structures, where the lowest floor is below the Regulatory Flood Elevation, or for residential structures where there exists a fully enclosed area below the lowest habitable floor other than a basement, subject to flooding, and usable solely for parking of vehicles or building access, 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 an Arizona Registered Civil Engineer to meet or exceed the following minimum criteria:
 - a. A minimum of two openings, in line with the direction of flow on opposing walls, having a total net area of not less than one and one-half square inches for every square foot of enclosed area subject to flooding shall be provided.
 - b. The bottom of all openings shall be no higher than the interior floor.
 - c. The top of all openings shall be no higher than the base flood elevation.
 - d. Openings may be equipped with screens, louver, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.
5. Manufactured homes shall meet the above standards and also the standards in Section 5.6.
6. Attached Garages, because of the propensity to be remodeled in the future as part of the building, are to be elevated at or above the regulatory flood elevation.
7. Detached garages and accessory structures, as defined in Section 2.0, may be constructed such that its floor is below the regulatory flood elevation, provided the structure is designed and constructed in accordance with the following requirements:

- a. A minimum of two openings, in line with the direction of flow on opposing walls, having a total net area of not less than one and one-half square inches for every square foot of enclosed area subject to flooding shall be provided.
- b. The bottom of all openings shall be no higher than the interior floor.
- c. The top of all openings shall be no higher than the base flood elevation.
- d. Openings may be equipped with screens, louver, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

5.2 STANDARDS FOR STORAGE OF MATERIALS AND EQUIPMENT

The storage or processing of materials within the regulatory floodplain and/or erosion hazard areas, that are buoyant, flammable, explosive, or could be injurious to human, animal or plant life is prohibited without a Floodplain Use Permit. Provided the storage of material or equipment is not subject to major damage by floods, and if firmly anchored to prevent flotation, or if readily removable from the area within the time available after flood warning.

5.3 STANDARDS FOR UTILITIES

- A. All new or replacement water supply, water treatment and sanitary sewage systems shall be designed and located to avoid impairment to them or contamination of flood waters flood waters, or avoid erosional damages to the system during and after a flood event.
- B. On-site waste disposal systems are not be located within the regulatory floodplain if there is a location outside the floodplain on the property where any on-site waste disposal system of any type, including alternative systems, can be placed. On-site waste disposal systems shall be allowed within the regulatory floodplain when areas outside the floodplain are present on the same property only if no alternative is available and the system is designed to be protected from flood and erosion hazards that would release septic materials into flood waters and as built certified after construction, by an Arizona Registered Civil Engineer.
- C. Waste disposal systems shall not be installed in a regulatory floodway.
- D. Waste disposal systems shall not be installed within the erosion hazard area of any wash.
- E. All utilities and service facilities such as electrical and heating equipment shall be constructed at or above the Regulatory Flood Elevation. Systems defined as a critical facility must also meet the requirements of Section 5.13.

5.4 STANDARDS FOR COMMERCIAL AND INDUSTRIAL DEVELOPMENTS

- A. Application. These standards shall apply to all commercial and industrial developments where the development areas are either one acre and larger, or if smaller than one acre have more than 66 percent impervious area (including structure, concrete work, and paving). This Section does not apply to home occupations, as defined by the Santa Cruz County Development Code, located within single-family residences.

- B. Engineering. A hydrologic and hydraulic report detailing existing undisturbed drainage conditions and proposed full development drainage conditions is to be performed by an Arizona Registered Professional Civil Engineer, and submitted to, and approved by the Floodplain Administrator prior to the approval of a building permit. The amount of runoff generated from the fully developed conditions is not to exceed the amount of runoff generated in the undisturbed state of the property (see Section 5.5.J).
- C. Plans. Plats and development plans shall show areas subject to flooding and erosion. All tentative and/or preliminary plats, final plats and development plans submitted shall show location, by survey or photographic methods, of streams, watercourses, canals, irrigation laterals, private ditches, culverts, lakes, or other water features, including those areas subject to flooding or erosion. The plats/plans shall also include the direction of any flow and drainage area, as well as water surface elevations, the limits of inundation, and erosion hazard setback for the base flood with a regulatory discharge.
- D. Additional Standards. Proposed commercial and industrial developments shall also meet the standards within Sections 5.5.

5.5 STANDARDS FOR SUBDIVISIONS

- A. Suitability of land. Land may not be parceled or subdivided in such a manner to create sellable lots unsuitable for development because of flood and/or erosion hazards. Whenever possible, all proposed building sites are to be outside any regulatory floodplain and/or erosion hazard area.
- B. Plats and plans to show areas subject to flooding and erosion. All tentative and/or preliminary plats, final plats, lot splits by records of survey and development plans submitted shall show location, by survey or photographic methods, of streams, watercourses, canals, irrigation laterals, private ditches, culverts, lakes, or other water features, including those areas subject to flooding or erosion. The plats/plans and lot splits by records of survey shall also include the direction of any flow and drainage area, as well as water surface elevations, the limits of inundation, and erosion hazard setback for the base flood if such a flood has a regulatory discharge, as well as the encroachment limit within the floodplain, where encroachment is proposed.
- C. Engineering.
 - 1. All new subdivision proposals and other developments (including splits by record of survey, manufactured home parks and subdivisions) greater than or equal to 50 units or 5 acres, whichever more restrictive, affected by a Special Flood Hazard Area Zone A, as shown on the effective Flood Insurance Rate Maps, shall:
 - a. Be consistent with the need to minimize flood damage.
 - b. Identify the area of special flood hazard and the elevation of the base flood.
 - c. Identify on the final plans the elevation(s) of any proposed structure(s) and pads. If the site is filled above the base flood elevation, the final lowest floor and grade elevations shall be certified by a registered professional engineer or

surveyor and provided to the Floodplain Administrator. Compensatory storage for the fill within the regulatory flood elevation is also to be provided.

- d. Have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage and affect by the regulatory floodplain.
 - e. Provide adequate drainage to reduce exposure to flood hazards.
2. All drainage channels, natural or manmade, with a regulatory discharge, during the base flood event, will have water surface elevations and erosion hazard setbacks calculated in accordance with standard engineering practice.
 3. All channels with a peak discharge of 1500 cfs, or greater, during the base flood event, and are not mapped in detail (to include water surface elevations and floodway delineations) or not mapped at all on the existing FIRM panels (i.e. Special Flood Hazard Zone AE), shall have a hydrologic and hydraulic analysis done in accordance with standard engineering practice to determine water surface elevations and floodway delineations, which shall be submitted to FEMA as part of a Conditional Letter of Map Revision (CLOMR), if the development proposes physical alterations to the flood prone areas such as levees, berms, fill, etc., or a Letter of Map Revision if no physical alteration of the floodplain area is proposed. FEMA approval of the CLOMR/LOMR must be supplied to the Flood Control District prior to the approval of the final plat of the subdivision.
 4. Any new subdivision that proposes to alter any existing floodplains, as shown on the current FIRM panels, must submit a hydrologic and hydraulic analysis done in accordance with standard engineering practice to FEMA as part of either a Conditional Letter of Map Revision (CLOMR), if the development proposes a physical alteration to the floodplain, or a Letter of Map Revision (LOMR) if no physical alteration is proposed. FEMA approval of the CLOMR/LOMR must be supplied to the Flood Control District prior to the approval of the final plat of the subdivision.

D. Grading and drainage improvement plans:

1. All tentative and/or preliminary plats and development plans shall show proposed grading and improvements for areas which are subject to flooding, erosion, or which have drainage problems, and shall also show a description and location of all facilities proposed to alleviate flooding, erosion, or drainage problems within or outside the boundaries of the subdivision or development.
2. All development plans and tentative and/or preliminary plats must be accompanied by grading plans and drainage improvement plans as necessary to demonstrate:
 - a. The methods for flood proofing and/or drainage control for the development, including sufficient lot grading information to demonstrate adequate finished pad elevations and/or drainage slopes to protect building foundations, as applicable;

- b. That improvements are compatible with the existing upstream and downstream drainage conditions and that any proposed grading and/or grade change will not have an adverse impact on surrounding property;
 - c. The methods of erosion and sediment control;
 - d. The methods of mitigating increased peak and/or volumetric floodwater runoff or discharge on downstream properties created as a result of the development.
 - e. The plans to revegetate disturbed areas, as necessary, to mitigate or re-establish riparian habitat areas, and as erosion and sediment control.
3. Prior to commencement of any site improvements or grading, a grading plan must be submitted to the Santa Cruz County Flood Control District and the Santa Cruz County Building Department, or appropriate incorporated jurisdiction, for review and approval, to include a Floodplain Use Permit. Detailed improvement plans for storm drains or channel improvements must also be submitted to the Flood Control District for review and approval.

E. Floodplain and floodway boundaries – Drainage areas.

- 1. All final plats and development plans, and lot split by survey shall indicate the limits of the regulatory floodplains, erosion hazard boundaries and the limits of the federally established regulatory floodplain and floodways, and be delineated in a surveyable manner and certified by an Arizona Registered Land Surveyor.
- 2. All final plats shall indicate both the drainage areas and their respective base flood peak discharges, with a note contained on the final plat that the drainage areas and base flood peak discharges are provided for information purposes and are subject to change as conditions in the watershed change.

F. Street elevation requirements. In new developments streets required for paved permanent access shall be designed and constructed so that the flow depths over them do not exceed six inches in depth during the base flood. At least one paved permanent access shall be provided to each lot over terrain which can be traversed by conventional motor vehicles in time of flooding. In specific instances at drainage crossings where it can be demonstrated that this requirement is either impractical, based upon low hazard to life and property, or where construction of a drainage crossing may create problems which override the corresponding benefits, this requirement may be waived by the Floodplain Administrator. Fill may be used for streets in areas subject to flooding provided such fill does not unduly increase flood heights, and compensatory storage is provided at a ratio of 1.5 to 1. The developers are required to provide profiles and elevations of streets for areas subject to flooding.

G. Building site for habitable structures location restrictions are as follows:

- 1. Land which contains areas within a regulatory floodplain or erosion hazard area shall not be platted for residential occupancy of building sites unless each lot contains a building site, either natural or man-made, which is not subject to flooding or erosion from the base flood.

2. Building sites, shown as building envelopes where necessary at the direction of the Santa Cruz County Flood Control District, are to be located outside of the regulatory floodplain if possible. Building envelopes for habitable structures within the regulatory floodplain must be proven, through sound engineering practices, to be a safe building site above the Base Flood Elevation, and shown not to adversely affect any neighboring property or infrastructure.
 3. No structures or fill is to be placed within the regulatory floodway.
 4. Structures shall be constructed/placed in accordance with the erosion hazard setback as described in Section 5.10.
 5. In regulatory floodplain areas where fill is to be used to raise the elevation of a building site, the building shall be located not less than twenty-five feet landward from the edge of the fill unless a study/analysis prepared by an Arizona Registered Professional Engineer demonstrates a lesser distance is acceptable. No fill shall be placed in any regulatory floodplain, nor shall any fill be placed where it diverts, retards or obstructs the flow of water to such an extent to create a danger or hazard to life or property, or causes any increase in the water surface elevation in any existing structure. Compensatory storage shall be provided to mitigate the effects of the fill on the regulatory floodplain.
 6. Any building built within a regulatory floodplain shall be constructed so as to place the lowest floor (finished or not) of the structure at or above the regulatory flood elevation, and shall be certified as required by Section 5.1.C.
 7. A structure designed or utilized for human habitation, whether full-time or part-time, shall only be permitted where the product of the flow depth (d), in feet, times the square of the flow velocity (v), in feet per second, of the surrounding floodwaters of the base flood does not exceed the numerical value of eighteen ($dv^2 \leq 18$) for a period in excess of thirty minutes, or the surrounding floodwaters of the base flood do not exceed three feet in depth, without mitigation based on sound engineering practice.
- H. Setback from channels. Along reaches of watercourses where hazards from eroding banks or channel meandering are considered by the Floodplain Administrator to be severe, special engineering studies prepared by an Arizona Registered Professional Engineer shall be required of the property owner or developer, and requirements for setbacks from banks of watercourses and/or other protection measures shall be established in accordance with those approved studies. Also see Section 5.10.
- I. Right-of-way for drainage.
1. Whenever a subdivision plat or development plan contains a watercourse which is regulated by this Ordinance, all rights-of-way associated with the watercourse shall be designated "Drainageway".
 2. If the watercourse is an improved watercourse with a peak flow of at least 10,000 cubic feet per second during the 100-year flood, the drainageway shall include the channel, the channel improvements, and a fifty-foot-wide area measured outward from the front face of the top of the channel or bank protection for Santa Cruz County or for Santa Cruz County Flood Control District use.

3. If the watercourse is an improved watercourse, the drainageway shall, at a minimum, include the channel, the channel improvements, and necessary maintenance access.
4. If the watercourse is to remain natural, the drainageway shall, at a minimum, be the boundaries of the regulatory floodplain.
5. Along watercourses where the peak discharge during the base flood is ten thousand cubic feet per second or greater, the drainageway shall be dedicated in fee simple to the Santa Cruz County Flood Control District.
6. Along other watercourses, the Floodplain Administrator shall determine whether it is necessary for the Santa Cruz County Flood Control District, or appropriate incorporated jurisdiction, to have control of the drainageway. If the Floodplain Administrator determines that public control is necessary, the owner shall dedicate the drainageway by granting an easement.

J. Runoff detention and retention systems.

1. All proposed residential densities of three or more units per acre or all multifamily developments or units and all proposed commercial and industrial developments greater than one acre in size or more than 66 percent impervious area (including structure, concrete work, and paving) shall provide some method of peak or volumetric runoff reduction. The amount of reduction shall, at a minimum, reduce the peak or volumetric runoff of the base flood event to the undeveloped conditions, based on a study prepared by an Arizona Registered Professional Engineer. The minimum standards for reduction will be based upon the Arizona State Standard for Storm Water Detention/Retention 8-99, and any updates to said standard.
2. Areas deemed by the Floodplain Administrator to be unsuitable for additional development because of the high probability of increased flooding, or flooding of existing improvements or property not previously flooded, or ponding of floodwater, may be developed further only upon the incorporation of adequate detention/retention systems or flood control facilities, as reviewed and approved by the Floodplain Administrator. Drainage basins, which have not been previously identified, shall be subject to the provisions of this section. These detention or retention systems or flood control facilities shall be incorporated into any and all future basin-development proposals regardless of size or land use density.
3. Redevelopment of any industrial, commercial, or residential development approved prior to June 1, 2001, shall be required to provide retention/detention that reduces the on-site peak or volumetric runoff of the base flood event to 90 percent of the pre-redevelopment value. This requirement may be waived by the Floodplain Administrator if an analysis is provided which documents that the redevelopment does not impact the quantity of flow or velocity of flow received by adjacent property or downstream channels.
4. Structural flood control measures may be proposed in conjunction with or in place of detention/retention systems if it can be clearly demonstrated that such measures

will not alter the water and sediment equilibrium of the affected watercourse and will mitigate environmental impacts. Appropriate structural flood control measures, such as channelization to a logical conclusion downstream of the proposed development and/or improvements to existing off-site flood control systems within the effected drainage or stream reach, shall be completed in accordance with plans designed and submitted by an Arizona Registered Professional Engineer and reviewed and approved by the Floodplain Administrator.

5. Detention/retention systems will, at a minimum, meet the Arizona State Standard #8-99 for Stormwater Detention/Retention, all subsequent revisions of said State Standard and all of the requirements listed in this subsection.
6. Detention/retention systems will include Best Management Practice (BMP) elements to help improve/protect storm water quality. BMPs should come from referenced source such as the practices listed by the U.S. Environmental Protection Agency, such as grassed swales, infiltration trenches, riparian buffers, etc., or Rain Garden techniques.
7. For developments covering less than one acre in size, use of a Rain Garden is allowed in lieu of an engineered retention/detention system.
8. For watersheds with a drainage area of one-square mile or greater, all retention/detention systems shall be off-line systems.

K. Cost recovery for drainage or flood control improvements.

1. The Floodplain Board may establish a cost recovery system or fee system for the improvement of installation of public flood control systems. The purpose of the fee is to provide a method for off-site improvements necessary to mitigate the effect of flooding and flood related damages and to provide a systematic approach for the construction of public flood control improvements. If such a system is adopted it shall demonstrate that the fee will in some manner benefit the property from which the fee is collected and be applied equitably to all property in proportion to floodwaters generated by urban use of the property. The fees will also be restricted to providing flood control improvements necessary for the allowed use of the properties from which the fee is collected, and the fees shall be reasonably related to the actual cost of providing flood control improvements beneficial to the site or surrounding area. The fee schedule as established by the Floodplain Board shall be attached to this Ordinance as Appendix.
2. The Floodplain Board and Developers shall establish a cost recovery system for the inspection, maintenance, upkeep, and/or repair of flood and/or erosion control systems constructed on major watersheds for the sole purpose of providing protection for new or proposed developments and/or subdivisions, and dedicated to the Public. Said recovery system is to be created as an Improvement District comprising the entire development and/or subdivision, as well as any surrounding lands receiving direct benefit from said protection. Said Improvement District is to be instituted before any building permits can be issued within the development and/or subdivision.

L. Drainage channels.

1. Drainage channels shall not be fully lined. Improved channel bottoms shall remain natural, or utilize techniques that will allow for a naturalistic appearance and function, to include infiltration and vegetation.
2. Perimeter channels that route flow around the outer edge outside of the development should be prohibited in all areas where there is an established natural channel.
3. In conditions, based on engineering studies, on a case-by-case basis, lined and/or exterior perimeter channels may be approved for use by the Floodplain Administrator.

M. Riparian Habitat

1. Santa Cruz County and the Santa Cruz County Flood Control District recognize the environmental, recreational, and beneficial function of riparian vegetation along watercourses and floodplains. Wherever possible, riparian vegetation should be left as undisturbed as possible. If it is necessary to disturb riparian vegetation, the property owner, or developer, shall, at the discretion of the Floodplain Administrator, mitigate the disturbance by replanting the appropriate flora in an area, adjacent to the existing undisturbed habitat, equal in size to the area of disturbance.
2. Riparian Habitat Maps shall be adopted by resolution of the Board of Directors and incorporated into this Ordinance. In areas where mapping has not been completed, Riparian Habitat shall be defined as a minimum total vegetative volume of 0.500 cubic meters per square meter, within the geologic floodplain.
3. District Staff will utilize the adopted Riparian Habitat Maps to recommend preservation of high value riparian habitat within any proposed rezoning conditions.
4. Riparian areas being segregated on a plat or record of survey from individual properties shall be labeled as "Natural Area".
5. This section does not apply to single residential properties, which are covered under Section 5.12

5.6 STANDARDS FOR MANUFACTURED HOMES AND MANUFACTURED HOME PARKS AND SUBDIVISIONS.

A. Permit requirements and exemptions.

1. From the effective date of this Ordinance, it shall be unlawful to place a manufactured home within a regulatory floodplain or erosion hazard area for more than one hundred eighty consecutive days without first applying for and obtaining a Floodplain Use Permit from the Floodplain Administrator, and then complying with each and every written term of the permit. If the 180 days has expired without the owner applying for and obtaining a Floodplain Use Permit, the manufactured home is to be removed from the floodplain or erosion hazard area immediately. However, no such permit shall be required for any repairs or alterations for which the value of

the materials and labor thereon does not exceed one thousand five hundred dollars, except for those improvements which obstruct the flow of floodwaters. For the purpose of determining the value of any such repairs or alterations, the normal retail value of materials and the reasonable value of labor performed shall be used. Although no Floodplain Use Permit is required, all other provisions of this Ordinance shall be observed in the performance of said repairs or alterations.

2. Repairs or alterations shall not be done in a piecemeal fashion, or phased, for the purpose of avoiding applying for a permit when the total cost of said work is in excess of one thousand five hundred dollars.

B. Anchoring requirements. All manufactured homes and additions to manufactured homes located within a regulatory floodplain or erosion hazard area shall be anchored to resist flotation, collapse or lateral movement by one of the following methods:

1. By providing an anchoring system designed to withstand horizontal forces of twenty-five pounds per square foot and uplift forces of fifteen pounds per square foot; or
2. By providing over-the-top and frame ties to ground anchors. Specifically:
 - a. Over-the-top ties be provided at each of the four corners of the manufactured home, with two additional ties per side at intermediate locations, except that manufactured homes less than fifty feet long require only one additional tie per side.
 - b. Frame ties be provided at each corner of the home with five additional ties per side at intermediate points, except that manufactured homes less than fifty feet long require only four additional tie per side.
 - c. All components of the anchoring system shall be capable of withstanding a force of four thousand eight hundred pounds.
3. These requirements are in addition to applicable state and local anchoring requirements for resisting wind forces.

C. Location and placement conditions. Where any of the following exists:

1. Manufactured homes not placed in manufactured home parks or subdivisions;
2. New manufactured home parks or subdivisions;
3. Expansions to existing manufactured home parks or subdivisions; and
4. Repair, reconstruction or improvements to existing manufactured home parks or subdivisions that equal or exceed fifty percent of the value of the streets, utilities and pads before the repair, reconstruction or improvement commenced; are located within a regulatory floodplain or erosion hazard area.

The following standards shall apply:

- a. Adequate surface drainage and access for the hauler shall be provided;
- b. All manufactured homes shall be placed on pads or lots elevated on compacted fill which shall be, at a minimum, at or above the base flood elevation or on a stem wall or pilings so that the bottom of the structural frame

or the lowest point of any attached appliances, whichever is lower, is at or above the regulatory flood elevation. If elevated on pilings:

- i. The lots shall be large enough to permit handicap access;
 - ii. The pilings shall be placed in stable soil to a depth of at least three feet, and no more than ten feet apart; and
 - iii. Structure designed or utilized for human habitation, whether full-time or part-time, shall only be permitted where the product of the flow depth (d), in feet, time the square of the flow velocity (v), in feet per second, of the surrounding floodwaters of the base flood does not exceed the numerical value of eighteen ($dv^2 \leq 18$) for a period in excess of thirty minutes, or the surrounding floodwaters of the base flood do not exceed three feet in depth.
- c. All manufactured homes shall be placed such that the long axis of the structure is parallel to the direction of flow.

D. Setback from channels. Along reaches of watercourses where hazards from eroding banks or channel meandering are considered by the Floodplain Administrator to be severe, special engineering studies prepared by an Arizona Registered Professional Civil Engineer shall be required of the property owner or developer, and requirements for setbacks from banks of watercourses and/or other protection measures shall be established in accordance with those approved studies. Also see Section 5.10.

E. Certification requirements.

1. Certification that the installation of a manufactured home meets all of the requirements of this section is required. Such certification shall be provided by the person installing the manufactured home, the owner, the developer of the manufactured home park or subdivision, or an agency regulating manufactured home placement, whichever is deemed appropriate by the Floodplain Administrator.
2. Certification of elevations listed on the Floodplain Use Permit shall be prepared by an Arizona Registered Land Surveyor and provided to the Floodplain Administrator prior to the habitation of the structure.

5.7 STANDARDS FOR RECREATIONAL VEHICLES. All recreational vehicles placed on site for temporary occupation, within a special flood hazard area, regulatory floodplain or erosion hazard area, will either:

- A. Be on site for fewer than 180 consecutive days, and be fully licensed and ready for highway use. 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, or
- B. Meet the permit requirements of Section 4 of this Ordinance and the elevation and anchoring requirements for manufactured homes in Section 5.6.

5.8 FLOODWAYS. Located within areas of special flood hazard established in Section 3.2 are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of floodwaters which carry debris, potential projectiles, and erosion potential, no structures or fill of any type will be allowed to be constructed or placed except for:

- A. Open Structures consisting of only vertical posts and a roof, designed to provide shade.
- B. Structures existing prior to the mapping of the floodway are exempt from the above listed criteria as long as the replacement structure occupies the same footprint as the original structure and meets all other requirements within Section 5 of this Ordinance as well as the following criteria.
 - 1. Work to be performed qualifies under Section 3.7 of this Ordinance as a substantial improvement or repair.
 - 2. Proof of construction date must be provided along with Floodplain Use Permit Application.
 - 3. The use of the structure has not been abandoned or the structure has not been rendered uninhabitable and or destroyed for a period exceeding one calendar year. In the event of a declared disaster, the Floodplain Administrator may reasonably extend this time frame.
 - 4. Bottom portion of the structure is to be constructed in an open manner such that there is no impedance to the flow of floodwaters through the lower portion of the structure. Typically, this will mean the structure is elevated on piers, pilings, or posts and there are no walls or enclosures of any type, except what is necessary for access to the structure, in the lower level. The lowest structural support for the floor of the structure above this open area is to be at or above the Regulatory Flood Elevation.
 - 5. The bottom portion of the structure may only be used for parking, building access, or other approved open uses.
 - 6. Bottom portion of the structure is to be constructed solely of flood proof/flood resistant materials.
 - 7. Structures existing prior to the mapping of the floodway are only allowed only one use of this exemption. Once this exemption has been invoked for a structure, the structure may not be granted this exemption again for any reason. If the exemption has been granted once, and the structure sustains substantial damages due to any event (flood, fire, earthquake, etc.) the uses on the property shall thereafter be limited to open uses.
 - 8. Critical facilities and critical structures are not eligible for this exemption.

5.9 FLOODWAY FRINGE AREAS. The following conditions shall apply to all uses within the floodway fringe area:

- A. Conditions applicable to all uses.
 - 1. No development, storage of materials or equipment, or other uses shall be permitted which, acting alone or in combination with existing or future uses, create a danger or hazard to life or property.

2. Consideration of the effects of a proposed use or development shall be based on the assumption that there will be an equal degree of encroachment extending for a significant reach on both sides of the watercourse.
 3. The maximum effect of allowed encroachment will not exceed a one half of one foot increase in the water surface elevation of the base flood event.
- B. Fill and fill materials.
1. Any fill proposed to be deposited in the floodway fringe must be shown to have some beneficial purpose and the amount thereof not greater than necessary to achieve that purpose, as demonstrated by a plan submitted by the owner showing the uses to which the filled land will be put and the final dimensions of the proposed fill or other materials, and the effects said fill will have on the surround floodplain, floodplain elevations, and velocities.
 2. Such fill or other materials shall be protected against erosion by riprap, vegetative cover, bulk heading or other approved methods.
 3. Compensatory Storage to mitigate the effects of the fill shall be provided at a ratio of 1.5 to 1.
- C. Structures – Construction Restrictions.
1. Structures shall be constructed so as to offer minimum obstruction to the flow of floodwaters. Whenever possible, structures shall be constructed with the same alignment as the direction of flood flow and so far as practicable shall be placed approximately on the same alignment as those adjoining structures.
 2. Structures shall meet all other restrictions, as applicable, within Section 5 of this Ordinance.
- D. Sand, gravel and other excavations.
1. Extraction of sand, gravel and other materials is allowed, if permitted by all other applicable Federal, State, and local regulations, within the floodway fringe and erosion hazard areas of any regulatory floodplain, provided that excavations are not so located nor of such depth, or width, or length, or combination of depth-width-length as to present a hazard to structures (including, but not limited to roads, bridges, culverts, and utilities), to banks or watercourses, to other property, or which adversely affect groundwater recharge. Excavation within the channel of the watercourse is generally discouraged and can only be permitted for any sand and gravel operation in continuous operation since before May 1, 2001. All other in channel operations must be granted by Variance of the Board of Directors per Section 6.0 of this Ordinance.
 2. There shall be no stockpiling of material or tailings within the floodway fringe areas that may obstruct, divert or retard the flow of floodwaters except as reviewed and approved by the Floodplain Administrator or an individual Floodplain Use Permit basis.
 3. Due to the rapidly changing hydraulic characteristics of watercourses in Santa Cruz County, and the effects excavations have on these characteristics, Floodplain

Use Permits for excavations shall only be issued for a limited period of time, not to exceed one year, subject to annual renewal upon review by the Floodplain Administrator.

4. In addition to those conditions provided for elsewhere, Floodplain Use Permit for excavations may impose conditions regarding the area and location in which excavations are allowed, the maximum amount of material to be excavated, and other reasonable restraints on methods of operation, including time restraints.
5. Any extraction of sand and gravel or related materials in the floodway fringe or erosion hazard areas shall be allowed only if a reclamation plan is also provided to reclaim the excavated areas so that all adverse effects of extraction are mitigated. The plan shall also contain a timetable and financial assurances for accomplishing reclamation.
6. The Floodplain Administrator may require bonds or other financial assurances appropriate for the sand and gravel extraction operation.
7. The Floodplain Administrator may require hydrologic, hydraulic and geomorphic analyses addressing the existing conditions as well as the impacts under the proposed method of operation.
8. The Floodplain Management Board may grant variances as provided by Section 6 of this Ordinance.

5.10 FLOOD RELATED EROSION-PRONE (EROSION HAZARAD) AREAS AND BUILDING SETBACKS.

- A. The Floodplain Administrator shall require permits for proposed construction and other development within all flood-related erosion-prone areas as known to the community.
- B. Permit applications shall be reviewed to determine whether the proposed site alterations and improvements will be reasonably safe from flood-related erosion and will not cause flood-related erosion hazards or otherwise aggravate the existing hazard.
- C. If a proposed development is found to be in the path of flood-related erosion or would increase the erosion hazard, such improvements shall be relocated or adequate protective measures shall be taken to avoid aggravating the existing erosion hazard.
- D. Within Zone E on the Flood Insurance Rate Map, a setback is required for all new development from the lake, bay, riverfront or other body of water to create a safety buffer consisting of a natural vegetative or contour strip. This buffer shall be designated according to the flood-related erosion hazard and erosion rate, in relation to the anticipated useful life of structures, and depending upon the geologic, hydrologic, topographic, and climatic characteristics of the land. The buffer may be used for suitable open space purposes, such as for agricultural, forestry, outdoor recreation and wildlife habitat areas, and for other activities using temporary and portable structures only.
- E. All buildings are required to be set back a minimum distance from the top of bank of any watercourse, where approved bank protection is not provided, as follows:

1. The building setback along any straight channel reaches, or reaches with minor curvature, is to equal the square root of the peak flow of the base flood (setback = $(Q_{100})^{0.5}$).
2. The building setback along any channel reach with obvious curvature or channel bend, or areas where the embankment is highly susceptible to erosion, is to equal the two and a half times the square root of the peak flow of the base flood (setback = $2.5(Q_{100})^{0.5}$).
3. The building setback for the Santa Cruz River shall be five hundred (500) feet.
4. Along watercourses where unusual conditions do exist, building setbacks shall be established on a case-by-case basis by the Floodplain Administrator, unless an engineering study which establishes safe limits is performed by an Arizona Registered Professional Civil Engineer and is approved by the Floodplain Administrator. When determining building setback requirements, the Floodplain Administrator shall consider danger to life and property due to existing flood heights or velocities and historic channel meandering. Unusual conditions include, but are not limited to, historic meandering of the watercourse, large excavation pits, poorly defined or poorly consolidated banks, natural channel armoring, proximity to stabilized structures such as bridges or rock outcrops, and channel changes in the direction, amount, and velocity of the flow of waters within the watercourse.

5.11 VEHICULAR ACCESS. It is recognized that private vehicular access may become impassible to ordinary and emergency vehicles during times of flooding. It is the intent of this section to allocate the responsibility for private vehicular access which crosses a regulatory floodplain.

- A. This section shall apply in all situations where private vehicular access crosses any regulatory floodplain located between the point where the private access leaves a paved, publicly maintained roadway and the end of the private access.
- B. In all situations where private vehicular access crosses a regulatory floodplain located between the point where the private access leaves a paved, publicly maintained roadway and the end of the private access, the owner of the property requiring the private vehicular access shall:
 1. Construct a private vehicular access in such a manner that it is permanent and is over terrain which can be traversed by conventional motor vehicles during a base flood; or
 2. Execute and record a covenant running with the land, enforceable by Santa Cruz County and the Santa Cruz County Flood Control District, which contains the following:
 - a. An acknowledgement that the private vehicular access may be impassible to conventional motor vehicles and emergency vehicles in times of flooding,
 - b. A hold-harmless provision, holding Santa Cruz County and the Santa Cruz County Flood Control District harmless from and against all injuries and

damages resulting from traversing or attempting to traverse the private vehicular access during times of flooding, and

- c. The covenantor, successors and assigns assume the responsibility to either erect and maintain signs stating “**DO NOT ENTER WHEN FLOODED**”, or notify users of the private vehicular access that it may be impassible during times of flooding.

5.12 WATERCOURSE AND RIPARIAN HABITAT. Santa Cruz County and the Santa Cruz County Flood Control District recognize the environmental, recreational, and beneficial function of riparian vegetation along watercourses and floodplains. Where ever possible, riparian vegetation shall be left as undisturbed as possible. If it is necessary to disturb riparian vegetation on properties existing in subdivisions predating this Ordinance, the property owner, or developer, may disturb only the minimum amount of habitat necessary to construct the structure, necessary clear zones for wildfire protection, driveway, and installation the utilities for the structure, and shall, at the discretion of the Floodplain Administrator, mitigate the disturbance by replanting the appropriate flora in an area, adjacent to the existing undisturbed habitat, equal in size to the area of disturbance, minus the area required for the structure, services, utilities, and wildfire protection zone, per the direction of the Floodplain Administrator. For the purpose of this section, the removal of dead and down vegetation between the wildfire protection zone and a distance up to 125 feet from the perimeter edge of a structure will not require a permit or mitigation. For new subdivisions, and commercial and/or industrial developments, refer to Section 5.5.M of this Ordinance. Recreational uses, such as trails, will require a review on a case by case basis to determine if mitigation is warranted. Recreational use of motorized vehicles in publically owned areas of regulatory floodplains dedicated as Natural Areas, Open Space, or Preservation Areas is prohibited unless permitted in writing by the public entity owning the area.

5.13 STANDARDS FOR CRITICAL FACILITIES/CRITICAL SERVICES.

- A. Critical Facilities and Services are prohibited from being constructed, or for existing facilities improved or repaired by an amount equal to or greater than forty-nine percent (49%) of the pre-improvement/repair market value within the floodway.
- B. Critical Facilities and Services should not be located in the regulatory floodplain. If a Critical Facility/Service must be located in a the regulatory floodplain, it must be demonstrated that there is either a critical need to locate the Critical Facility/Service within the floodplain, or that there is not suitable alternative site, as determined by a rigorous alternative site evaluation report, performed by an Arizona Registered Civil Engineer. Any such facility or service located within a regulatory floodplain must be protected from the five hundred year event. Such protection is to include, but not limited to a finished floor elevation a minimum of one foot above the five hundred year floodplain water surface elevation, elevated access ramps, utilities and mechanical services, and adequately protected from both lateral and vertical erosion associated with the five hundred year floodplain.
- C. Improvements and/or repairs to existing Critical Facilities or Critical Services by an amount equal to or greater than forty-nine percent (49%) of the pre-improvement/repair market value must be protected from the five hundred year flood

event. Such protection is to include, but not limited to a finished floor elevation a minimum of one foot above the five hundred year floodplain water surface elevation, elevated access ramps, utilities and mechanical services, and adequately protected from both lateral and vertical erosion associated with the five hundred year floodplain.

SECTION 6.0
VARIANCES AND APPEALS

6.1 NATURE OF VARIANCES. The variance criteria set forth in this section of the Ordinance are based on the general principle of zoning law that variances pertain to a piece of property and are not personal in nature. A variance may be granted for a parcel of property with physical characteristics so unusual that complying with the requirements of this Ordinance would create an exceptional hardship to the applicant or the surrounding property owners. The characteristics must be unique to the property and not be shared by adjacent parcels. The unique characteristic must pertain to the land itself, not to the structure, its inhabitants, or the property owners.

It is the duty of Santa Cruz County to help protect its citizens from flooding. This need is so compelling and the implications of the cost of insuring a structure built below the regulatory flood elevation are so serious that variances from the flood elevation or from other requirements in the flood Ordinance are quite rare. The long-term goal of preventing and reducing flood loss and damage can only be met if variances are strictly limited. Therefore, the variance guidelines provided in this Ordinance are more detailed and contain multiple provisions that must be met before a variance can be properly granted. The criteria are designed to screen out those situations in which alternatives other than a variance are more appropriate. A variance is subject to conditions to ensure the variance does not constitute a grant of special privileges inconsistent with the limitations on similar property in a special flood hazard area, regulatory floodplain, or erosion hazard area.

6.2 APPEAL BOARD.

- A. The Floodplain Board of Santa Cruz County shall hear and decide appeals and requests for variances from the requirements of this Ordinance.
- B. The Floodplain Board shall hear and decide appeals when it is alleged there is an error in any requirement, decision, or determination made by the Floodplain Administrator in the enforcement or administration of this Ordinance.
- C. In passing upon such applications, the Floodplain Board shall consider all technical evaluations, all relevant factors, standards specified in other sections of this Ordinance, and:
 - 1. The danger that materials may be swept onto other lands to the injury of others;
 - 2. The danger of life and property due to flooding or erosion damage;
 - 3. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
 - 4. The importance of the services provided by the proposed facility to the community;
 - 5. The necessity to the facility of a waterfront location, where applicable;
 - 6. The availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;
 - 7. The compatibility of the proposed use with existing and anticipated development;

8. The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;
 9. The safety of access to the property in time of flood for ordinary and emergency vehicles;
 10. The expected heights, velocity, duration, rate of rise, and sediment transport of the flood waters expected at the site; and,
 11. The costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water system, and streets and bridges.
- D. Upon consideration of the factors of Section 6.2.C and the purposes of this Ordinance, the Floodplain Board may attach such conditions to the granting of variances, as it deems necessary to further the purposes of this Ordinance.
- E. Any applicant to whom a variance is granted shall be given written notice over the signature of a the Chairperson of the Floodplain Board that:
1. The issuance of a variance to construct a structure below the base flood level will result in substantially increased premium rates for flood, and
 2. Such construction below the base flood level increases risks to life and property.
- Such notification shall be maintained with a record of all variance actions as required in Paragraph 6.2.F. of this Ordinance. Such notice will also state that the land upon which the variance is granted shall be ineligible for exchange of State Land pursuant to any flood relocation and land exchange program provided by ARS Title 26, Chapter 2, Article 2. A copy of the notice shall be recorded by the Floodplain Board in the office of the Santa Cruz County Recorder and shall be recorded in a manner so that it appears in the chain of title of the affected parcel of land.
- F. The Floodplain Administrator shall maintain a record of all variance actions, including justification for their issuance, and report such variances issued in its biennial report submitted to the Federal Emergency Management Agency.
- G. The District shall advise any city or town which has assumed jurisdiction over its special flood hazard areas, regulatory floodplains and erosion hazard areas in accordance with A.R.S. Section 48-3610 in writing and provide a copy of any development plan or any application which has been filed with the County for a Floodplain Use Permit, appeal or variance to develop land in a floodplain or floodway within one mile of the boundary between the District's area of jurisdiction and the jurisdiction of that city or town. The District shall also advise any city or town in writing and provide a copy of any development plan of any major development proposed within a regulatory floodplain or floodway which could affect regulatory floodplains, floodways or watercourses within that city's or town's area of jurisdiction. Written notice and copy of the plan of development shall be sent to any adjacent jurisdiction no later than five business days after having been received by the District.

6.3 CONDITIONS FOR VARIANCES

- A. Generally, variances may be issued for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing the procedures of Sections 4 and 5 of this Ordinance have been fully considered. As the lot size increases beyond one-half acre, the technical justification required for issuing the variance increases.
- B. Variances may be issued for the repair, rehabilitation or restoration of structures listed in the National Register of Historic Places or the State Inventory of Historic Places, upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure.
- C. Variances shall not be issued within any designated or regulatory floodway.
- D. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
- E. Variances shall only be issued upon:
 - 1. A determination that the variance is the minimum necessary, considering the flood hazards to afford relief;
 - 2. A determination of good and sufficient cause;
 - 3. A determination that failure to grant the variance would result in exceptional hardship to the applicant;
 - 4. A showing that the use cannot perform its intended purpose unless it is located or carried out in close proximity to water. This includes only facilities defined in Section 2.0 of this Ordinance in the definition of "Functionally Dependent Use"; and
 - 5. A determination that the granting of a variance will not result in increased flood heights, flood velocities, erosion or scour potential, additional threats to public safety, result in a threat to the physical safety of any individual, extraordinary public expense, create nuisances, cause fraud on or victimization of, the public, or conflict with existing local laws or ordinances.

6.4 FILING OF APPEALS AND REQUEST FOR VARIANCES

- A. Any property owner appealing any written decision concerning the interpretation or administration of this Ordinance shall first appeal in writing to the Floodplain Administrator, within fifteen business days of the written decision. The Appeal shall be deemed delivered to the County on the date the appeal is placed with the United States Postal Service in the form of Certified Letter with a Return Receipt Requested postage paid, or by personal delivery of the appeal to be signed by an agent of the Flood Control District acknowledging receipt of said notice. A date stamped copy of receipt by the department of the appeal shall be provided to the appealing party when personally delivered.
- B. The Floodplain Administrator shall make a written response within fifteen business days of receipt of the appeal. Within fifteen business days of receipt of the written

appeal the Floodplain Administrator may request such additional information as deemed necessary in order to render a written decision.

- C. Any property owner aggrieved by the written decision of the Floodplain Administrator may file with the Clerk of the Board a written appeal or request for variance, within fifteen business days of the Floodplain Administrator's written decision, which shall be heard by the Floodplain Board of Santa Cruz County.
- D. Any property owner aggrieved by a written decision of the Floodplain Administrator may request a third party review by an agreed upon, independent engineer.

6.5 HEARING REQUIREMENTS

- A. The Floodplain Board shall hold a hearing concerning the appeal or request for variance within forty-five calendar days after the written appeal or request for variance is received by the Clerk of the Board, and has been deemed to be complete. Continuance of the hearing may be granted for good cause.
- B. The appeal or request for variance shall contain a detailed explanation of all matters in dispute, and the Floodplain Board, through the Floodplain Administrator, may require the submission of such additional information it deems necessary.
- C. The hearing shall be conducted in an informal manner. The Floodplain Board shall not be bound by the technical rules of evidence in the conduct of such hearings. All parties to the hearing shall have the right to present evidence in support of or in opposition to the decision of the Floodplain Administrator.
- D. The Floodplain Board shall render its decision within thirty calendar days of the close of the hearing.
- E. The Floodplain Board may meet monthly or as such times as it deems necessary for the transaction of business, including the hearing of appeals and request of variances.
- F. The Floodplain Board may refer matters of a higher technical nature, where an appeal or request for variance is made to the Floodplain Board, to a technical review committee, which shall make findings and recommendations to the Floodplain Board for decision. The technical review committee shall consist of three Arizona Registered Professional Engineers, in good standing, one named by the Floodplain Administrator, one by the applicant for appeal or variance, and one named by the Floodplain Board. This review committee shall not be permanent in nature, but shall be formed as required to hear individual appeals or request for variance.
- G. Should a technical review committee be appointed pursuant to subsection F of this section, the hearing required in section 6.5.A may be continued up to an additional forty-five days or such time as is necessary for the technical review committee to make its findings and recommendations to the Floodplain Board.

SECTION 7.0
EFFECTIVE DATE

The effective date of this Ordinance shall be XXXXXXXX, 2015.

PASSED AND AOPTED THIS XXX DAY OF XXX, 2015.

John Maynard, Chairman
Santa Cruz County Flood Control
District Board of Directors

Manny Ruiz,
Vice-Chairman

Rudy Molera
Member

ATTEST:

Melinda Meek
Clerk Of the Board

APPROVED AS TO FORM:

Deputy County Attorney