

**A BILL FOR AN ORDINANCE TO AMEND CHAPTER 8, ARTICLE 12
KAUA‘I COUNTY CODE 1987, AS AMENDED, RELATING TO CONSTRAINT
DISTRICT(S).**

SECTION 1. Finding and Purpose. The Council finds that rapid warming of the atmosphere and oceans is increasing sea level rise that threatens our natural and built environments.

The Council also finds that the State of Hawaii Climate Change and Mitigation and Adaptation Commission adopted a Sea Level Rise Vulnerability and Adaptation Report. The Report with its corresponding Hawaii Sea Level Rise Viewer provide hazard and vulnerability data and maps that can be used for land management decisions.

The Council also finds that the Hawaii Sea Level Rise Viewer models three specific sea level rise hazards associated to increase within this century: chronic coastal erosion, annual high wave run up, and passive flooding.

The Council also finds that the Comprehensive Zoning Ordinance has two relatively outdated and redundant Constraint Districts, the Constraint Shoreline District (S-SH) and Flood District (S-FL). Both of these Constraint Districts are now covered by much more comprehensive rules and regulations with the Special Management Area Rules and Regulations and the Floodplain Management Ordinance, respectively.

The Council also finds that Article 27 of the Comprehensive Zoning Ordinance establishes specific shoreline setback requirements to address chronic coastal erosion as well as the added impact of sea level rise on shoreline erosion. Any additional regulations concerning sea level rise impacts on coastal erosion should be done so within Article 27 of the Comprehensive Zoning Ordinance

The purpose of this ordinance is to amend the Comprehensive Zoning Ordinance’s Constraint Shoreline District (S-SH) and Flood District (S-FL) to become the Constraint Sea Level Rise District to address sea level rise impacts on annual high wave run up and passive flooding projected to occur within this century by the State of Hawaii Sea Level Rise Viewer.

SECTION 2. Sec. 8-12.4 Flood District (S-FL) and Sec. 8-12.5 Shore Districts (S-SH), Kaua‘i County Code 1987, as amended is hereby amended to read as follows:

[Sec. 8-12.4 Flood District (S-FL).

(a) ~~Purpose.~~

~~(1) To minimize the threat to public health and safety due to periodic inundation by storm water.~~

~~(2) To maintain the characteristics of flood plain areas which contribute to ground water recharge, storm water storage, silt retention and marine water quality.~~

~~(b) — Lands Included. All lands subject to flooding and identified as flood fringe, floodway, and general flood plain areas by the Federal Insurance Administration in a scientific and engineering report entitled “The Flood Insurance Study for the County of Kaua‘i,” dated March 9, 1987, with accompanying Flood Insurance Rate Maps.~~

~~(c) — Requirements for Development Within a Flood District. No Zoning, Building, or Use Permit shall be issued, nor shall any use requiring the development, grading or alteration of any portion of the Flood District be permitted, unless the applicant establishes conformity with the requirements of this Section.~~

~~(1) — Applications shall include:~~

~~(A) — Development plans indicating:~~

~~(i) — The location, size, nature, and intended use of all buildings, roads, walkways and other impervious surfaces;~~

~~(ii) — Limits and extent of all clearing and grading operations; grading plans showing existing and revised contour lines; cross sections showing cuts and fills anticipated; angles of slopes and structural appliances such as retaining walls and cribbing;~~

~~(iii) — Sizes and locations of existing and proposed surface and subsurface drainage with expected quantities, velocities, and treatment of outfalls;~~

~~(iv) — Provisions for siltation and erosion control during construction and plans for revegetation of all cleared or graded areas not covered by impervious surfaces;~~

~~(v) — Identification of flood hazards on the site, including the delineation of the floodways and base flood elevations.~~

~~(B) — When required by the Department of Public Works, hydrologic and geologic reports showing the effects of the development on ground water recharge, storm water retention and marine water quality shall be submitted.~~

~~(C) — When required by the Planning Director, an environmental impact study indicating critical areas of concern and the effects of the proposed development on physical, geologic, ecologic and environmental forms and systems such as downstream water quality, flood plains, wildlife, vegetation and marine ecologies, visual and historic amenities, and air or ground water pollution.~~

~~(2) — The use, structure and development, if required, shall be subject to additional construction and development standards provided in Sec. 15-1, Flood Plain Management.~~

~~(3) — The applicant shall demonstrate to the satisfaction of the Planning Director, the Department of Public Works, and the Manager and Chief Engineer of the County Water Department that the proposed development will not have a detrimental effect on the ecology of the area and that the potential damage to public utility, traffic service systems, as a result of the development, has been substantially eliminated.~~

~~(d) — Modification of Requirements. The requirements of this Article shall not apply where the applicant demonstrates to the satisfaction of the Department of Public Works that the~~

area in question should not have been included in the Flood District under the criteria established in Subsection (b).

Sec. 8-12.5 Shore Districts (S-SH).

(a) ~~Purpose. To regulate development or alterations to shore and water areas which have unique physical and ecological conditions in order to protect and maintain physical, biologic and scenic resources of particular value to the public.~~

(b) ~~Lands Included.~~

(1) ~~The Shore District includes the greater of the following shoreline areas (land and water):~~

(A) ~~That area where the Planning Director determines that there is significant interrelationship between the physical, biologic, or ecologic forms or systems characteristic of the shore area;~~

(B) ~~From the low water mark to forty (40) feet inland from the upper reaches of the wash of waves other than storm or tidal waves (or twenty (20) feet in those cases as are provided for by the rules of the State Land Use Commission implementing Chapter 205, H.R.S.).~~

(2) ~~Within five (5) years after September 1, 1972 the Planning Commission shall prepare a Shoreline Special Treatment Zone Plan. The plan upon adoption by the Planning Commission shall determine the boundaries of the Shore District.~~

(c) ~~Requirements for Development Within the Shore District. No Zoning, Building or Use Permit shall be issued, nor shall any use requiring the development, grading or alteration of any portion of the Shore District be permitted, unless the applicant establishes conformity with the requirements of this Section.~~

(1) ~~Applicants for permits shall furnish an Information Report prepared by a person or firm qualified by training and experience to have expert knowledge of the subject. The Planning Director shall determine the adequacy of the report and may require the submission of further information where necessary. The report shall provide information regarding the existing ocean conditions and regarding probable effects of the proposed structures, development, or alterations, as follows:~~

(A) ~~With respect to existing conditions, the report shall describe the configuration of the shore; the nature, magnitude, and periodicity of Shore District forces such as wind, waves and currents, as they affect the Shore District; the origin, nature and volume of materials composing the shoreline; the physical and biologic characteristics and the rate of Shore District change over time under both natural and proposed artificial conditions.~~

(B) ~~With respect to probable effects of the proposed construction, the applicant shall define a design wave (usually the mean height and period of the highest one-third (1/3) of the waves of a given wave group, including storm surge and tsunami), the design water level of the ocean, the foundation conditions, and the construction materials, and shall state how the proposed design and construction operations will minimize disruption of the natural system.~~

- ~~(C) With respect to assessing the quality of the proposed construction, the applicant shall describe alternatives to the proposed construction that were considered and why each was rejected, in terms of environmental quality and economic feasibility, including as one alternative the choice of no construction.~~
- ~~(2) Before a permit may be granted, the applicant shall establish that the proposed alteration, construction or activity will not cause significant harm to:~~
- ~~(A) The water quality of the ocean, including, but not limited to, its clarity, temperature, color, taste and odor;~~
 - ~~(B) Fish and aquatic habitats;~~
 - ~~(C) The natural beauty of the area;~~
 - ~~(D) Navigation, safety or health; or~~
 - ~~(E) Would not substantially interfere with public use of the ocean waters or underlying lands; and~~
 - ~~(F) That other facilities are unavailable to the applicant.~~
- ~~(3) Marinas and harbors shall not be permitted in the following locations:~~
- ~~(A) Areas where, due to the amount of unconsolidated materials, wave and current energy, shoreline configuration, and other pertinent factors, beach erosion is likely to occur;~~
 - ~~(B) Unstable locations;~~
 - ~~(C) Areas designated by the Planning Commission as being of unique scenic beauty which should be retained in their natural condition;~~
 - ~~(D) Areas where there is no demonstrable public need for a new marina or harbor;~~
 - ~~(E) In areas so that the standards established in Subsection (c)(2) are violated;~~
 - ~~(F) Use Districts where marinas and harbors are not permitted uses.~~
- ~~(4) Marinas and harbors, when permitted, shall be located in the following areas unless the Planning Commission determines that the site would be inconsistent with the objectives of this Chapter or the applicant can demonstrate that such an area is unavailable and that the alternative site chosen will be consistent with the purposes of this Chapter.~~
- ~~(A) In deeper water in order to minimize the need for dredging;~~
 - ~~(B) In natural inlets to avoid use of breakwaters;~~
 - ~~(C) In an area designated for marinas and harbors on the General Plan.~~
- ~~(5) Design and Construction Standards.~~
- ~~(A) Floating piers or piers on pilings shall be used to provide access to boats, rather than dredging, whenever possible.~~
 - ~~(B) Where dredging is permitted, spoil material shall not be deposited in the water.~~

~~(C) Where a barrier wall is required in connection with a marina, or harbor, it shall be carried deep enough below the bottom to prevent movement of back-fill materials into the water.~~

~~(D) Materials used to stabilize the bottom of the marina or harbor for pier structures shall be chemically inert sand, gravel, or similar substances.~~

~~(6) Shore Facilities. Restrooms, pump-out facilities for boat sewage receptacles, and trash receptacles for other boat wastes shall be provided at a marina or harbor.~~

~~(7) Monitoring Information Requirements. The owner or operator of a marina or harbor may be required to furnish information concerning water quality, current patterns and intensities, shore alterations, and any other conditions which may be altered by the construction of the marina or harbor for a reasonable period after completion of the facility.~~

~~(8) Location of Shoreline Protective Structures. To prevent local beach loss, shoreline protective structures shall be used only where protection of the back shore is of greater importance than beach preservation, or where less disruptive methods have failed. The following design and construction standards shall apply:~~

~~(A) Sloping permeable revetments shall be used when barriers are permitted.~~

~~(B) Seawalls and bulkheads shall be permitted only when the applicant is able to demonstrate that revetments are not feasible and that the alternative structure will cause no undue beach erosion.~~

~~(C) Shoreline barriers shall not be constructed of unstable or soluble materials.~~

~~(9) There shall be no fill placed in the Shore District except at those locations where the fill is found to be beneficial to existing water quality or Shore District conditions.~~

~~(10) There shall be no dredging, removal or rearrangement of materials within the water or shore zone of the ocean. Dredging or excavation performed in the course of construction for which a permit has been approved under the terms of this Chapter shall be considered dredging or excavation for the purpose of this Section.~~

~~(d) Permits Required.~~

~~(1) A Class IV Zoning Permit is required for any construction, development, use or activity proposed to be carried out within forty (40) feet of the upper reaches of the wash of waves other than storm or tidal waves, or within the shoreline setback area as established by the State Land Use Commission pursuant to Chapter 205, H.R.S., whichever is the lesser. The Planning Commission shall issue a permit only if the requirements of both Chapter 205, H.R.S. and this Chapter have been met.~~

~~(2) A Class III or Class IV Zoning Permit, depending upon the requirements established for the underlying Use District in which the proposed construction, development, use or activity is located, is required for undertakings in the Shore District established by this Chapter located landward of the shoreline setback area defined in Subsection (d)(1). The Planning Director or Planning Commission shall issue a permit only if the requirements of this Chapter have been met.~~

~~(e) Modification of Requirements. The requirements of this Article shall not apply where the applicant demonstrates to the satisfaction of the Planning Director that the area in~~

question should not have been included in the Shore District under the criteria established in Subsection (c)(1).]

Sec. 8-12.4 Sea Level Rise District (S-SLR).

(a) Purpose.

- (1) To minimize the threat to public health and safety due to sea level rise that increases the impacts of annual high wave run up and passive flooding.
- (2) To promote resilient planning and design.
- (3) To minimize the expenditure of public money for costly flood control projects necessitated from sea level rise impacts.
- (4) To minimize the need for rescue and relief efforts that are associated with sea level rise flooding and generally undertaken at the expense of the general public.
- (5) To ensure that those who occupy areas that are projected to be impacted by sea level rise acknowledge and assume responsibility for their actions

(b) General Provisions

- (1) Lands Included. All lands subject to annual high wave flooding and passive flooding impacts projected by the Hawaii Sea Level Rise Viewer and within the County of Kauai Constraint Sea Level Rise District (S-SLR).
- (2) Compliance. No structure shall be constructed, located, extended, converted, or altered without full compliance with the terms of this Article or other applicable regulations.
- (3) Other Laws and Regulations. All construction and improvements subject to this Article shall comply with other applicable laws and regulations, including but not limited to, the Flood Plain Management Ordinance, Building Code, Electrical Code, Plumbing Code, Subdivision Ordinance, Special Management Area Rules and Regulations, and Sediment and Erosion Control Ordinance. In case of a conflict between this Article and the requirements of any other Federal, law, State law, or County ordinance, such as the Flood Plain Management Ordinance, the more restrictive requirements shall apply.
- (4) Interpretation. In the interpretation and application of this Article, all provisions shall be :
 - a. Considered as minimum requirements;
 - b. Liberal construed in favor of the County; and

c. Deemed neither to limit nor repeal any other requirement, power, or duty prescribed under Federal, State, or County statutes.

(5) Warning and Disclaimer of Liability. The degree of sea level rise protection required by this Article is considered reasonable for regulatory purposes and is based on scientific considerations. Larger floods and hazards can and will occur on occasions. Sea level rise flood elevations may be increased by human or natural causes. This Article does not imply that land outside the area of the Constraint Sea Level Rise District or uses permitted within such area will be free from damage. This Article shall not create liability on the part of the County of Kaua‘i, any officer, or employee for any damages that result from reliance on this Article or any administrative decision lawfully made based on this Article.

(c) Definitions

“Annual high wave run up” is the distance over which the maximum annually occurring significant wave height and associated peak period run-up and wash across the shoreline.

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

“Building footprint” shall mean all parts of a main building (excluding roof overhangs) that rest on the ground directly or indirectly, including those portions of the building that are supported by posts, piers, or columns. Building footprint also includes attached garages, covered carports, bay windows with floor space, lanais, decks, cantilevered decks. This definition does not include vertical access, such as stairs or ramps.

“County” means the County of Kaua‘i.

“County Engineer” means the County Engineer of the County of Kaua‘i or his/her authorized representative.

“Flood or flooding” means a general condition of partial or complete inundation of normally dry land areas from overflow of inland or tidal water resulting from any source, such as tsunamis, or the unusual and rapid accumulation of runoff or surface waters from any source.

“Hawaii Sea Level Rise Viewer” is an online atlas to support the Hawaii Sea Level Rise Vulnerability and Adaptation Report that was mandated by Act 83, Session Laws of Hawaii (SLH) 2014 and Act 32, SLH 2017. The Viewer provides data depicting projections for future hazard exposure and assessing economic and other vulnerabilities due to rising sea levels. The three (3) specific hazards it assesses are 1) coastal erosion, 2) annual high wave run up, and 3) passive flooding. The Viewer was

developed by the Pacific Islands Ocean Observing System (PacIOOS) at the University of Hawai‘i School of Ocean and Earth Science and Technology (UH SOEST) through a collaborative project led by the University of Hawai‘i Sea Grant College Program (Hawai‘i Sea Grant) in partnership with DLNR and the State of Hawai‘i Office of Planning.

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

“Passive flooding” is flooding of low coastal lands due to sea level rise potentially from multiple sources, including but not limited to a rising groundwater table, seawater flowing from the ocean through storm drains and out into urban areas (storm drain backflow from the ocean), and seawater flowing directly across the shoreline into lands that lie below the water level.

“Planning Director” means the Planning Director of the Planning Department of the County of Kaua‘i.

“Sea level rise flood elevation (SLRFE)” the individual depth per grid unit provided by the County of Kauai Sea Level Rise Viewer for both the high wave run up hazard and the passive flooding hazard when either of those are associated with 3.2 feet of sea level rise occurring by year 2100.

“Substantial damage” means damage of any origin sustained by a structure whereby the cost of restoring the structure to its pre-damaged condition would equal or exceed fifty percent (50%) of the market value of the structure before the damage occurred.

“Substantial improvement” means any combination of repairs, reconstruction, improvements, or additions or other improvements to a structure over a ten (10) year period, where the cumulative cost equals or exceeds fifty percent (50%) of the market value of the structure before the start of construction of the first improvement during that ten (10) year period. If the structure has sustained substantial damage, any repairs are considered substantial improvement regardless of the actual repair work performed. The cost of any substantial improvement, including the cost to repair damage to pre-damage condition, shall be reviewed and determined by the County Engineer or his/her authorized representative. The term does not, however, include either: (1) any project for improvement of a structure to correct existing violations of a 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 (2) any alteration of a “historic structure,” provided that the alteration will not preclude the structure’s continued designation as a “historic structure.”

(d) Design Standards.

(1) Anchoring. All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure.

(2) Elevation.

- a. Residential Structures. All new construction and substantial improvements shall have the lowest floor (including basements) elevated at least two (2) feet above the highest sea level rise flood elevation (SLRFE) located within the respective building footprint. This additional two (2) feet shall be calculated from the top of the SLRFE to the bottom of the lowest horizontal structural member of the lowest floor, excluding pilings, columns, and vertical accesses.

Fully enclosed areas below the lowest floor that are useable solely for parking of vehicles, building access, or storage in an area other than a basement shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters.

Designs for meeting this requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria: A minimum of two (2) openings having a total net area of not less than one (1) square inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one (1) foot above grade. Openings may be equipped with screens, louvres, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

- b. Nonresidential Structures. All new construction and substantial improvements shall elevate the lowest floor, including basement, at least one (1) foot above the highest sea level rise flood elevation located within the respective building footprint. This additional one (1) foot shall be calculated from top of the SLRFE to the bottom of the lowest horizontal structural member of lowest floor, excluding pilings, columns, and vertical accesses.

(3) Fill is prohibited for structural support

(4) No machinery or equipment that service a building, such as furnaces, air conditioners, heat pumps, hot water heaters, washers, dryers, elevator lift equipment, electrical junction and circuit breaker boxes, and food freezers, are permitted below the respective sea level rise depth value located within the respective space the machinery is proposed to be situated.

- (5) All interior wall, floor, and ceiling materials located below the sea level rise flood elevations must be unfinished and resistant to flood damage. The design standards set forth in the American Society of Civil Engineers (ASCE) 24 Flood Resistant Design and Construction shall be followed.
- (6) Front, Rear, and Side Setback Areas. The following may be located within the required setback areas:
- a. Front, Rear, and Side Setback Areas: structures and improvements used for vertical access from grade to the elevated structure, such as stairs or ramps.
 - b. Rear and Side Yards: flood protection equipment, and structures housing mechanical equipment above the required SLRFE.
- (7) All design standards shall conform, at a minimum, to the Kaua‘i County Code’s Floodplain Management Regulations (See Title V, Chapter 15, Article 1 Floodplain Management). Additionally, per the State Building Code Council, as of November 13, 2020 Kaua‘i County is required to adopt the 2012 International Building Code Council and will be required to adopt the 2018 International Building Code in timeframes determined by the State Building Code Council. The 2012 International Building Code incorporates, by reference, that the American Society of Civil Engineers (ASCE) section 24-05 Flood Resistant Design and Construction be followed. The 2018 International Building Code incorporates, by reference, that the American Society of Civil Engineers (ASCE) section 24-14 Flood Resistant Design and Construction be followed. The current versions of the IBC and ASCE Flood Resistant Design and Construction shall be followed and the more stringent criteria will comply where conflicts arise with the SLRFE.

(e) Nonconforming Structures

Any nonconforming structure existing on the effective date of this ordinance XXX may continue subject to the following conditions:

- (1) Any repair, reconstruction, improvement, or addition to a nonconforming structure; if it is determined to be substantial improvement or repair of substantial damage, it shall comply with the applicable standards for new construction in the Constraint Sea Level Rise District. However, an repair, reconstruction, improvement, or addition to a nonconforming structure will not have to comply with the applicable standards for new construction if it meets one of the following criteria: (1) any project for improvement of a structure to correct existing violations of a 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 (2) any alteration of a

“historic structure,” provided that the alteration will not preclude the structure’s continued designation as a “historic structure.”

- (2) Replacement or reconstruction of a destroyed or demolished nonconforming structure is considered new construction regardless of the actual work performed and shall comply with the applicable standards of this Article.
- (3) All relocated structure shall comply with the standards of the Article.

(a) Determination of Exemption

- (1) Standards. A Determination of Exemption from the design standards of this Article may be issued by a joint determination of the County Engineer and the Planning Director where the applicant can demonstrate that the proposal will not increase sea level rise flood heights, create additional threats to public safety, create extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.
- (2) Request for Determination of Exemption. A request for Determination of Exemption shall be submitted to the Planning Director and the County Engineer. The application shall be signed and stamped by a registered professional engineer or architect, and it shall include three (3) sets of documents with the following information as may be applicable.
 - a. Plans and specifications showing the site and location; dimensions of all property lines and topographic elevation of the lot; existing and proposed structures and improvements, fill, storage area; location and elevations of existing and proposed streets and utilities; relationship of the site to the location of the Sea Level Rise Constraint District, flood boundary; floodway; and the existing and proposed flood control measures and improvements.
 - b. Cross-sections and profile of the area and the regulatory SLRFE elevations and profile based on elevation reference marks on flood maps.
 - c. An Elevation Certificate as developed by the Federal Emergency Management Agency (FEMA) showing compliance with all applicable floodplain management ordinance and regulations, including the elevation of the lowest horizontal structural member
 - d. Flood study and drainage report in areas where study and report have not been reviewed and accepted by the County.
 - e. Description of surrounding properties and existing structures and uses and the effect of the regulatory flood on them caused by the ministerial variance.

- f. Evaluation and supporting information for the ministerial variance with respect to each of the four (4) factors to be considered by the County Engineer and Planning Director as listed in Subsection (b) of this Section.

- g. An agreement, executed by the property owner, that a covenant will be inserted in the deed and other conveyance documents of the property and filed with the Bureau of Conveyances of the State of Hawai'i stating that the property is located in the Sea Level Rise Constraint District and is subject to flooding and flood damage; that a ministerial variance to construct a structure below the SLRFE will result in increased flood risks to life and property; that the property owners will not file any lawsuit or action against the County for costs or damages or any claim; that the property owners will indemnify and hold harmless the County from liability when such loss, damage, injury, or death results due to the ministerial variance and flooding of the property; and that upon approval of the ministerial variance, the covenants shall be fully executed and proof of filing with the Bureau of Conveyances shall be submitted to the County Engineer prior to the issuance of a building permit.

- h. Such other information as may be relevant and requested by the Planning Director and the County Engineer.