

Introduced by: Mayor @ request of
Planning Commission
Date: March 15
Hearing: Early Hearing requested
April 5th; Postponed to May 3rd
Vote: 10 Yes, 4 No
Action: Enacted

KENAI PENINSULA BOROUGH

ORDINANCE 88-7

REPEALING KPB 21.05 AND RE-ENACTING AS KPB 21.06: ESTABLISHING A FLOODPLAIN MANAGEMENT PROGRAM TO CONFORM TO REQUIREMENTS OF THE NATIONAL FLOOD INSURANCE PROGRAM.

WHEREAS, the Kenai Peninsula Borough entered the National Flood Insurance Program with the enactment of Ordinance 86-97 on November 18, 1986; and

WHEREAS, the Borough has developed and implemented a floodplain management program; and

WHEREAS, changes in regulations of the Federal Emergency Management Agency have made it necessary for the Borough to revise the ordinance authorizing the program; and

WHEREAS, the Borough Planning Commission has recommended that the Assembly revise the ordinance to reflect the new regulations and also to clarify procedures for implementation of the floodplain management program;

NOW, THEREFORE, BE IT ORDAINED BY THE ASSEMBLY OF THE KENAI PENINSULA BOROUGH:

Section 1: That Chapter 21.05 of the Kenai Peninsula Borough Code of Ordinances is repealed by this ordinance.

Section 2: That a new chapter, 21.06, is added to the Code of Ordinances, to read as follows:

21.06.010 The Assembly adopts the following findings and statements establishing a floodplain management ordinance:

A. Findings

1. The flood hazard areas of Kenai Peninsula Borough are subject to periodic inundation which results 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. 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 flood conditions in specific areas by provisions designed:

1. To protect human life and health;
2. To minimize expenditure of public money and costly flood control projects;
3. To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public.
4. To minimize prolonged business interruptions;
5. To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets, and bridges located in areas of special flood hazard;
6. To help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas;
7. To ensure that potential buyers are notified that property is in an area of special flood hazard; and,
8. To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

C. Objectives

In order to accomplish its purposes, this ordinance includes methods and provisions for:

1. Restricting or prohibiting uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;
2. Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
3. Controlling the alteration of natural flood plains, stream channels, and natural protective barriers, which help accommodate or channel flood waters;
4. Controlling filling, grading, dredging, and other development which may increase flood damage; and
5. Preventing or regulating the construction of flood

barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas.

21.05.020 Definitions:

1. "Coastal High Hazard Area" means the area subject to high velocity waters due to wind, tidal action, storm, tsunami or any similar force, acting singly or in any combination resulting in a wave or series of waves of sufficient magnitude, velocity or frequency to endanger property and lives.
2. "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 elevated portion of the building.
3. "Development" means any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations located within the area of special flood hazard.
4. "Federal Emergency Management Agency" is the agency responsible for administration of the National Flood Insurance Program.
5. "Flood Hazard Area" means the land area covered by the flood, having a one percent chance of occurring in any given year. See also 100-Year Flood.
6. "Flood Insurance Rate Map (FIRM)" means the map of the community issued by the FEMA which delineates the area subject to the 100-year flood, the water surface elevation of the base flood and the flood insurance rate zones.
7. "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 a designated height, usually one foot, at any point.
8. "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 ordinance found at KPB 21.06.050(B)(1).

9. "Manufactured Home" means a structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. For floodplain management purposes the term "manufactured home" also includes park trailers, travel trailers, and other similar vehicles placed on a site for greater than 180 consecutive days. For insurance purposes the term "manufactured home" does not include park trailers, travel trailers, and other similar vehicles.
10. "One Hundred Year Flood" (also called Regulatory Flood, Base Flood or Special Flood Hazard Area) means a flood of a magnitude which can be expected to occur on an average of once every 100 years. It is possible for this size flood to occur during any year, and possibly in successive years. It would have a one percent chance of being equalled or exceeded in any year. Statistical analysis of available streamflow or storm records, or analysis of rainfall and runoff characteristics of the watershed, or topography and storm characteristics are used to determine the extent and depth of the 100-year flood.
11. "Planning Department" means the Planning Department of the Kenai Peninsula Borough.
12. "Start of Construction" includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, placement or other improvement was within 180 days of the permit date. The actual start means either the first placement of 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 and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundation or 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 not part of the main structure.
13. "Structure" means a walled and roofed building including liquid or gas storage tank, as well as a manufactured home that is principally above ground.
14. "Substantial Improvement" means any remodeling, repair, reconstruction or improvement of a structure, the cost of which equals or exceeds 50 per cent of the market value of the structure before the improvement or repair is started

or, if the property has been damaged and is being restored, before the damage occurred.

15. "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.

21.06.030 General Provisions:

A. Lands to which this ordinance applies.

This ordinance shall apply to all flood hazard areas within the Kenai Peninsula Borough exclusive of the cities of Homer, Kenai, and Soldotna.

B. Basis for establishing flood hazard areas.

Flood hazard areas are identified by the Flood Insurance Rate Maps with an effective date of May 19, 1981, revised on July 5, 1983. The map panels numbered 020012-1350 and 1700 have been deleted and the areas depicted by these panels are not subject to the terms of this ordinance. Excluding these panels, the Flood Insurance Rate Maps are hereby adopted by reference and declared to be a part of this ordinance. The Flood Insurance Rate Maps are on file at the Planning Department.

C. Warning and disclaimer of liability.

The degree of flood protection required by this ordinance is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This ordinance does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This ordinance shall not create liability on the part of the Kenai Peninsula Borough, any officer or employee thereof, or the Federal Insurance Administration, for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made thereunder.

D. Penalties for Noncompliance

No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this ordinance and other applicable regulations. Violation of the provisions of this ordinance by failure to comply with any of its

requirements (including violations of conditions and safeguards established in connection with conditions) shall constitute a misdemeanor. Any person who violates this ordinance or fails to comply with any of its requirements shall upon conviction thereof be fined not more than three hundred dollars or imprisoned for not more than five days, or both, for each violation, and in addition shall pay all costs and expenses involved in the case. Nothing herein contained shall prevent the Kenai Peninsula Borough from taking such other lawful action as is necessary to prevent or remedy any violation.

21.06.040 Administration:

A. Development Permit Required

A development permit shall be obtained before construction or development begins within flood hazard areas established in KPB 21.06.030(B). The permit shall be for all structures and for all other development including fill and other activities. Application for a development permit shall be made on forms furnished by the Borough and shall include but not be limited to: plans in duplicate drawn to scale showing the nature, location, dimensions, and elevations 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:

1. Elevation in relation to mean sea level, of the lowest floor (including basement) of all structures;
2. Elevation in relation to mean sea level to which any structure has been floodproofed;
3. Certification by a registered professional engineer or architect that the floodproofing methods for any non-residential structure meet the floodproofing criteria in KPB 21.06.050(B)(2);
4. Description of the extent to which a watercourse will be altered or relocated as a result of proposed development.

B. Designation of the Borough Administrator

The Planning Department is hereby appointed to administer and implement this ordinance by granting or denying development permit applications in accordance with its provisions.

C. Duties and Responsibilities of the Planning Department

Duties of the Planning Department shall include, but not be limited to:

1. Permit Application Review

- (a) Review all development permit applications to determine that the permit requirements have been met.
- (b) Review all development permit applications to determine that all necessary permits have been obtained from those Federal, State, or local governmental agencies from which prior approval is required.
- (c) Review all development permit applications to determine if the proposed development is located in the floodway. If located in the floodway, assure that the encroachment provisions of Section KPB 21.06.050(C)(1) are met.

2. Issue Permit

- (a) Upon determination that the submitted and recorded information connected with the permit application meets the terms of this ordinance, the Planning Department shall issue a Floodplain Development Permit to the original applicant.
- (b) The Floodplain Development Permit shall be valid for a period of one year from the issue date.
- (c) The Floodplain Development Permit is not assignable without permission from the Planning Department.

3. Use of Other Base Flood Data

When base flood elevation data has not been provided in accordance with KPB 21.06.030(B), Basis for establishing flood hazard areas the Planning Department shall obtain, review, and reasonably utilize any base flood and floodway elevation data available from a Federal, State or other source, in order to administer KPB 21.06.050(B)(1), Specific Standards, Residential Construction, KPB 21.06.050(B)(2), Specific Standards, Nonresidential Construction, and KPB 21.06.050(C) Floodways.

4. Information to be Obtained and Maintained

- (a) Where base flood elevation data is provided through the Flood Insurance Study or required in 21.06.040(C)(2), record the actual elevation as submitted (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement.
- (b) For all new or substantially improved floodproofed structures:
 - (i) Record the actual elevation as submitted (in relation to mean sea level), and
 - (ii) maintain the floodproofing certifications required in KPB 21.06.040(A)(3).
- (c) Maintain for public inspection all records pertaining to the provisions of this ordinance.

5. Alteration of Watercourses

- (a) Notify adjacent communities and the Department of Community & Regional Affairs prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration.
- (b) Require that maintenance is provided within the altered or relocated portion of said watercourse so that the flood carrying capacity is not diminished.

6. Fee Required

The Planning Department shall charge fees for permits and variances. Fees shall be established by resolution of the Planning Commission of the Kenai Peninsula Borough to be paid by the applicant at the time that the floodplain development permit application is submitted.

21.06.050 Standards:

A. General Standards

In all flood hazard areas, the following standards are required:

1. Anchoring

- (a) All new construction and substantial improvements shall be anchored to prevent floatation, collapse, or lateral movement of the structure.
- (b) All manufactured homes must be anchored to prevent floatation, collapse or lateral movement, and shall be installed using methods and practices that minimize flood damage. Anchoring methods may include, but are not limited to, use of over-the-top or frame ties to ground anchors.

2. Construction Materials & Methods

- (a) All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
- (b) All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.
- (c) Electrical, heating, ventilation, plumbing and air-conditioning equipment and other service facilities shall be designed and/or otherwise elevated or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

3. Utilities

- (a) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system;
- (b) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into flood waters; and,
- (c) On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

4. Subdivision Proposals

- (a) All subdivision proposals shall be consistent with the need to minimize flood damage;
- (b) All proposed improvements such as water, sewer, natural gas, telephone and electrical facilities shall be located and constructed in a manner which will minimize damage in the event of a flood.
- (c) All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage.
- (d) Where base flood elevation data has not been provided or is not available from another authoritative source, it shall be generated for subdivision proposals and which contains 50 lots or 5 acres, or greater.
- (e) It is the responsibility of the subdivider to provide all necessary information regarding flood protection measures at the time the preliminary plat is presented for consideration by the Planning Commission.

5. Review of Building Permits

Where elevation data is not available, applications for building permits shall be reviewed to assure that proposed construction will be reasonably safe from flooding. The test of reasonableness is a local judgement and includes use of historical data, high water marks, photographs of past flooding, etc., where available.

B. Specific Standards

In all flood hazard areas where base flood elevation data has been provided as set forth in KPB 21.06.030(B), Basis for establishing flood hazard areas, the following provisions are required:

1. Residential Construction

- (a). New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to or the above the base flood elevation.
- (b). Fully enclosed areas below the lowest floor that are subject to flooding are prohibited, or 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 must meet or exceed the following minimum criteria:

- (i) A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided.
- (ii) The bottom of all openings shall be no higher than one foot above grade.
- (iii) Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

2. Non-Residential Construction

New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor, including basement, elevated to the level of the base flood elevation; or, together with attendant utility and sanitary facilities, shall:

- (a) be floodproofed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water;
- (b) have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy;
- (c) be certified by a registered professional engineer or architect that the standards of this subsection are satisfied. Such certifications shall be provided to the official as set forth in KPB 21.06.040(c)(4)(b).
- (d) Nonresidential structures that are elevated, not floodproofed, must meet the same standard for space below the lowest floor as described in KPB 21.06.050(B)(1)(b).
- (e) Applicants floodproofing nonresidential buildings shall be notified that flood insurance premiums will be based on rates that are one foot below the floodproofed level (e.g. a building constructed to

the base flood level will be rated as one foot below that level).

3. Manufactured Homes

All manufactured homes to be placed or substantially improved within Zones A1-30, AH, and AE shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is at or above the base flood elevation and be securely anchored to an adequately anchored foundation system in accordance with the provisions of KPB 21.06.050(A)(1).

C. Floodways

Located within flood hazard areas established in KPB 21.06.030(B) are areas designated as floodways. Since the floodway is an extremely hazardous area due to erosion potential and the velocity of flood waters which carry debris, the following provisions apply:

1. All encroachments, including fill, new construction, substantial improvements, and other development are prohibited unless certification by a registered professional engineer or architect is provided demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.
2. If KPB 21.06.050(C)(1) is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of KPB 21.06.050.

D. Coastal High Hazard Areas

1. When FEMA has identified on the communities FIRM Zones VI-V30 (coastal high hazard areas) construction shall meet the following requirements in addition to all other provisions in this ordinance:
 - (a) All new construction shall be located landward of the reach of mean high tide.
 - (b) All new construction and substantial improvements within Zones VI-V30 on the FIRM shall be elevated on adequately anchored pilings or columns such that:
 - (i) the bottom of the lowest horizontal structural member of the lowest floor (excluding the pilings or columns) is

elevated to or above the base flood level,
and

- (ii) the pile or column foundation and structure attached thereto is anchored to resist flotation, collapse and lateral movement due to the effects of wind and water loads acting simultaneously on all building components. Wind and water loading values shall each have a one percent chance of being equaled or exceeded in any given year (100-year mean recurrence interval); and
 - (iii) A registered professional engineer or architect shall develop or review the structural design, specifications and plans for the construction and shall certify that the design and methods of construction to be used are in accordance with accepted standards of practice for meeting the provisions of (i) and (ii) of this section.
- (c) All new construction and substantial improvements shall have the space below the lowest floor free of obstructions or constructed with breakaway walls. Such temporarily enclosed space shall not be used for human habitation.

For the purpose of this section, a breakaway wall shall have a design safe loading resistance of not less than 10 and no more than 20 pounds per square foot. Use of breakaway walls which exceed a design safe loading resistance of 20 pounds per square foot (either by design or when so required by local or State codes) may be permitted only if a registered professional engineer or architect certifies that the designs proposed meet the following conditions:

- (i) breakaway wall collapse shall result from a water load less than that which would occur during the base flood; and
- (ii) the elevated portion of the building and supporting foundation system shall not be subject to collapse, displacement, or other structural damage due to the effects of wind and water loads acting simultaneously on all building components (structural and nonstructural). Maximum wind and water loading values to be used in this determination shall each have a one percent chance of being equaled or exceeded in any given year (100-year mean recurrence interval).

- (d) The use of fill for structural support of buildings within Zones V1-V30 on the FIRM is prohibited.

21.06.060 Variance Procedure

A. Appeal Board

- 1. The Kenai Peninsula Borough Planning Commission shall hear and decide appeals and requests for variances from the requirements of this ordinance.
- 2. The Planning Commission shall hear and decide appeals when it is alleged there is an error in any requirement, decision, or determination made by the Planning Department in the enforcement or administration of this ordinance.
- 3. Those aggrieved by the decision of the Planning Commission, or any taxpayer, may appeal such decision to the Borough Assembly, as provided in AS 29.40.050.
- 4. In passing upon such applications, the Planning Commission shall consider all technical evaluations, all relevant factors, standards specified in other section of this ordinance, and:
 - a. the danger that materials may be swept onto other lands to the injury of others;
 - b. the danger to life and property due to flooding or erosion damage;
 - c. the susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
 - d. the importance of the services provide by the proposed facility to the community;
 - e. the necessity to the facility of a waterfront location, where applicable,
 - f. the availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;
 - g. the compatibility of the proposed use with existing and anticipated development;
 - h. the relationship of the proposed use to the comprehensive plan and flood plain management program for that area;
 - i. the safety of access to the property in times of flood for ordinary and emergency vehicles;
 - j. the expected heights, velocity, duration, rate of rise, and sediment transport of the flood waters and the effects of wave action, if applicable, expected at the site; and

- k. 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 systems, and streets and bridges.
 - E. Upon consideration of the factors of KPB 21.06.060(A)(4) and the purposes of this ordinance, the Planning Commission may attach such conditions to the granting of variances as it deems necessary to further the purposes of this ordinance.
 - F. The Planning Department shall maintain the records of all appeal actions and report any variances to the Federal Insurance Administration upon request.
- B. Conditions for Variances
- (1) Generally, the only condition under which a variance from the elevation standard may be issued is 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 items a-h in KPB 21.06.060(A)(4) have been fully considered. As the lot size increases the technical justification required for issuing the variance increases.
 - (2) Variances may be issued for the reconstruction, rehabilitation, or restoration of structures listed on the National Register of Historic Places or the State Inventory of Historic Places, without regard to the procedures set forth in this section.
 - (3) Variances shall not be issued within a designated floodway if any increase in flood levels during the base flood discharge would result.
 - (4) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
 - (5) Variances shall only be issued upon:
 - a. a showing of good and sufficient cause;
 - b. a determination that failure to grant the variance would result in exceptional hardship to the applicant;
 - c. a determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on

or victimization of the public or conflict with existing local laws or ordinances.

- (6) Variances as interpreted in the National Flood Insurance Program are based on the general zoning law principle that they pertain to a physical piece of property; they are not personal in nature and do not pertain to the structure, its inhabitants, economic or financial circumstances. They primarily address small lots in densely populated residential neighborhoods. As such, variances from the flood elevations should be quite rare.
- (7) Variances may be issued for nonresidential buildings in very limited circumstances to allow a lesser degree of floodproofing than watertight or dry-floodproofing, where it can be determined that such action will have low damage potential, complies with all other variance criteria except KPB 21.06.060(B)(1), and otherwise complies with KPB 21.06.060(A) and (B) of the General Standards.
- (8) Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with a lowest floor elevation below the base flood elevation and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.

Section 3. That this section takes effect immediately upon its enactment.

ENACTED BY THE ASSEMBLY OF THE KENAI PENINSULA BOROUGH ON THIS 3rd DAY OF May, 1988.


Jonathan Sewall, Assembly President

ATTEST:


Joanne Brindley
Borough Clerk