

* Rewritten 1986

Introduced by: Mayor/Glick
Date: October 28, 1986
Hearing: Nov. 18, 1986
Vote: 11 Yes, 3 No
Action: ENACTED

KENAI PENINSULA BOROUGH

ORDINANCE 86-97

ESTABLISHING A FLOODPLAIN MANAGEMENT PROGRAM TO CONFORM TO REQUIREMENTS OF THE NATIONAL FLOOD INSURANCE PROGRAM.

WHEREAS, damaged residential and commercial structures in a delineated flood hazard area, as a result of current flooding, will not receive Federal Disaster Assistance until the Kenai Peninsula Borough enters the National Flood Insurance Program; and

WHEREAS, certain areas of Kenai Peninsula Borough are subject to periodic flooding from streams, rivers, lakes, and the ocean causing serious damages to properties within these areas; and

WHEREAS, relief is available in the form of federally subsidized flood insurance as authorized by the National Flood Insurance Act of 1968; and

WHEREAS, it is the intent of the Kenai Peninsula Borough Assembly to require the recognition and evaluation of flood hazards in all official actions relating to land use in the flood plain having special flood hazards; and

WHEREAS, this body has the legal authority to adopt land use and control measures to reduce future flood losses pursuant to AS29.40.010, 29.40.030, and 29.40.040;

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

Section 1. That the Kenai Peninsula Borough Code of Ordinances is hereby amended by adding a new chapter to be number 21.05, entitled Floodplain Management, which shall read as follows:

21.05.010 The Assembly adopts the following findings and statements establishing a flood plain management ordinance:

A. Findings of fact

~~1.~~ 1. The flood hazards 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

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tax base, all of which adversely affect the public health, safety, and general welfare.

2. 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, damage uses in other areas. Uses that are inadequately floodproofed, elevated, or otherwise protected from flood damage also contribute to the flood loss.

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 hazards 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 hazards; and,
8. To ensure that those who occupy the areas of special flood hazards 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 Hazards 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. "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 location within the area of special flood hazard.
3. "Federal Emergency Management Agency", is the agency responsible for administration of the National Flood Insurance Program.
4. "Flood Hazards Area" (also Special 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.
5. "Flood Hazard Boundary Map (FHBM)" means the map of the community issued by the FEMA which delineates the area subject to the 100-year flood. This area is identified as the "Special Flood Hazard Area" on the map.
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. "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 the 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.
9. "Structure" means a walled and roofed building including liquid or gas storage tank, as well as a mobile home and modular unit that is principally above ground.
10. "Substantially Improved" means any remodeling, repair, reconstruction or improvement of a structure, the cost of which equals or exceeds 50 percent of the improvement is started or (2) if the property has been damaged and is being restored, as such value existed before the damage occurred.

21.05.030 General provisions

A. Lands to which this ordinance applies.

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

B. Basis for establishing the areas of special flood hazard.

The areas of special flood hazard are identified by the Flood Insurance Rate Maps with an effective date of May 19, 1981 revised on July 5, 1983. The Flood Insurance Maps are hereby adopted by reference and declared to be a part of this ordinance. The Flood Insurance 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 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.

21.05.040 Administration

A. Development Permit Required

A development permit shall be obtained before construction or development begins within any area of special flood hazard established in KPB 21.05.030B. 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 may 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 seal 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 21.05.050B.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 Borough Administrator

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

1. Permit Review

- (a) Review all development permits to determine that the permit requirements have been met.
- (b) Review all development permits 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 permits to determine if the proposed development is located in the floodway. If located in the floodway, assure that the encroachment provisions of Section KPB 21.050.050C.1 are met.

2. Use of Other Base Flood Data

When base flood elevation data has not been provided in accordance with KPB 21.050.030B, BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD, the Planning Department shall obtain, review, and reasonably utilize any base flood elevation data available from a Federal, State or other source, in order to administer KPB 21.05.050B.1., SPECIFIC STANDARDS, Residential Construction, and KPB 21.05.050B.2, SPECIFIC STANDARDS, Nonresidential Construction.

3. Information to be Obtained and Maintained

- (a) Obtain and record the actual elevation (in relation to mean seal 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) verify and record the actual elevation (in relation to mean sea level), and
 - (ii) maintain the floodproofing certifications required in KPB 21.05.040A.3.
- (c) Maintain for public inspection all records pertaining to the provisions of this ordinance.

4. 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.

21.05.050 Standards for flood hazard protection

A. General Standards

In all areas of special flood hazards, the following standards are required:

1. Anchoring

- (a) All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure.
- (b) All mobile homes shall be anchored to resist flotation, collapse, or lateral movement by providing over-the-top and frame ties to ground anchors.

2. Construction Materials and 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.

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 proposal shall be consistent with the need to minimize flood damage;
- (b) All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage;
- (c) All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage; and,
- (d) Base flood elevation data shall be provided for subdivision proposals and other proposed development which contain at least 50 lots or 5 acres (whichever is less).

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 areas of special flood hazards where base flood elevation data has been provided as set forth in KPB 21.05.030B, BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD or Use of Other Base Flood Data, the following provisions are required:

1. Residential Construction

New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to or above base flood elevation.

2. Nonresidential 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 attendance 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 21.05.040.

3. Mobile Homes

Require that all manufactured homes to be placed or substantially improved within Zones Al-30, AH, and AE on the community's FIRM 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 KPB 21.05.050A.1.

C. Floodways

Located within areas of special flood hazard established in KPB 21.05.030B are areas designed as floodways. Since the floodway is an extremely hazardous area due to the velocity of flood waters which carry debris, potential projectiles, and erosion potential, 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 21.05.050C.1. is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of KPB 21.05.050.

D. Coastal high hazard areas

1. Coastal High Hazard Areas.

When FEMA has identified on the community's FIRM Zones VI-V30 (coastal high hazard areas), construction shall meet the following requirements:

- (a) Require that all new construction within Zones VI-30 on the FIRM be located landward of the reach of mean high tide.
- (b) All new construction and substantial improvements within Zones VI-V30 on the FIRM are elevated on adequately anchored pilings or columns, and securely anchored to such piles or columns so that the lowest portion of the structural members of the lowest floor (excluding the pilings or columns) is elevated to or above the base flood level.
- (c) Certification by a registered professional engineer or architect that the structure is

securely anchored to adequately anchored pilings or columns in order to withstand velocity waters and coastal storm wave wash.

- (d) All new construction and substantial improvements within Zones VI-V30 on the FIRM have the space below the lowest floor free of obstructions, or be constructed with breakaway walls intended to collapse under stress due to abnormally high tides or wind-driven water without jeopardizing the structural support of the structure. Such temporarily enclosed space shall not be used for human habitation.
- (e) The use of fill for structural support of buildings within Zones VI-V30 on the FIRM is prohibited.
- (f) Prohibit the placement of mobile homes, except in existing mobile home parks and mobile home subdivisions, within Zones VI-30 on the FIRM.

E. Shallow flooding areas - with depth designations.

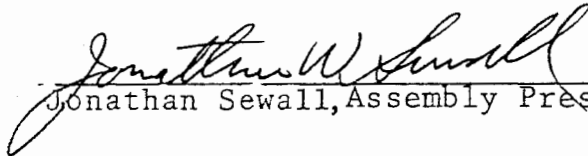
Shallow flooding zones appear on FIRM's, with depth designations, wherever such flooding occurs on sloping water surfaces such as alluvial fan flow, save wash after the wave has broken, etc. In these areas, the following provisions apply:

1. New construction and substantial improvements of residential structures within AO zones shall have the lowest floor (including basement) elevated above the highest adjacent grade of the building site, to or above the depth number specified on the FIRM.
2. New Construction and substantial improvements of nonresidential structures within AO zones shall either:
 - (a) have the lowest floor (including basement) elevated above the highest adjacent grade of the building site, to or above the depth number specified on the FIRM.
 - (b) together with attendant utility and sanitary facilities, be completely flood proofed to or above that level so that any space below that level is watertight with walls substantially impermeable to

the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. If this method is used, compliance shall be certified by a registered professional engineer or architect.

Section 2. That this ordinance takes effect immediately upon its enactment.

ENACTED BY THE ASSEMBLY OF THE KENAI PENINSULA BOROUGH ON THIS 13TH DAY OF November, 1986.


Jonathan Sewall, Assembly President

ATTEST:


Borough Clerk