

## **Chapter 17**

### **Flood Prevention**

#### **Section 17-1 Authorization.**

The legislature of the State of South Dakota has in SDCL 9-19 delegated the responsibility to local governmental units to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry.

#### **Section 17-2 Findings of fact.**

The flood hazard areas of the city are subject to periodic inundation which results in loss of life, property, health and safety hazards, disruption of commerce and governmental services, extra-ordinary 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; and

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 flood-proofed, elevated, or otherwise protected from flood damage also contribute to the flood loss.

#### **Section 17-3 Statement of purpose.**

It is the purpose of this Chapter 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 to:

- A. Protect human life and health;
- B. Minimize expenditure of public money to costly flood control projects;
- C. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- D. Minimize prolonged business interruptions;
- E. 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;
- F. 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. Ensure that potential home buyers are notified that property is in an area of special flood hazard; and
- H. Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

#### **Section 17-4 Methods of reducing flood losses.**

In order to accomplish its purpose, this Chapter includes methods and provisions for:

- A. 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;
- B. Requiring that uses vulnerable to floods, including facilities that serve such uses, be protected against flood damage at the time of initial construction;
- C. Controlling the alteration of natural flood plains, stream channels, and natural protective barriers, which help accommodate or channel flood waters;
- D. Controlling filling, grading, dredging, and other development which may increase flood damage; and
- E. Preventing or regulating the construction of flood barriers that will unnaturally divert flood waters or increase flood hazards in other areas.

**Section 17-5 Applicable lands.**

This Chapter shall apply to all areas of special flood hazards within the jurisdiction of the city.

**Section 17-6 Establishing areas of special flood hazards.**

The areas of special flood hazard identified by the Federal Emergency Management Agency in its Flood Insurance Rate Map (FIRM), dated November 15, 1985, is adopted by reference and declared to be part of this Ordinance. The FIRM is on file in the city finance office.

**Section 17-7 Compliance.**

No structure or land shall hereafter be constructed, located, extended, or altered without full compliance with the terms of this Chapter and other applicable regulations.

**Section 17-8 Abrogation and greater restrictions.**

This Chapter 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.

**Section 17-9 Interpretation.**

In the interpretation and application of this Chapter, 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.

**Section 17-10 Warning and disclaimer of liability.**

The degree of flood protection required by this Chapter 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 Chapter 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 Chapter shall not create liability on the part of the city, any officer or employee thereof, or the Federal Emergency Management Agency for any flood damages that result from reliance on this Chapter or any administrative decision lawfully made thereunder.

#### **Section 17-11 Permit procedures.**

A development permit shall be obtained before construction or development begins within any area of special flood hazard established in Section 17-6. Application for a development permit shall be made on forms furnished by the flood control officer and may include, but not be limited to:

- A. Plans in duplicate drawn to scale showing the nature, location, dimensions, and elevations of the area in question;
- B. Existing or proposed structures, fill, storage of materials, and drainage facilities; and
- C. 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 meets the floodproofing criteria in Section 17-15 (B); and
  4. Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.

#### **Section 17-12 Designation of the flood control officer.**

The finance officer will be designated as the flood control officer to administer and implement these provisions by granting or denying development permit applications in accordance with these provisions. (Amended 5-6-13)

#### **Section 17-13 Duties and responsibilities of the flood control officer.**

##### **A. Permit review.**

1. Review all development permits to determine that the permit requirements of this ordinance have been satisfied.
2. 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.
3. Review all development permits to determine if the proposed development adversely affects the flood carrying capacity of the area of special flood

hazard. For purposes of this ordinance, “adversely affects” means damage to adjacent properties because of rises in flood stages attributed to physical changes of the channel and the adjacent over bank areas.

- i. If it is determined that there is no adverse affect and the development is not a building, then the permit shall be granted without further consideration.
- ii. If it is determined that there is an adverse effect, then technical justification, (i.e., a registered professional engineer) for the proposed development shall be required.
- iii. If the proposed development is a building, then the provisions of this ordinance shall apply.

#### **B. Use of other base flood data.**

When base flood elevation data has not been provided in accordance with Section 17-11, the flood control officer shall obtain, review, and reasonably utilize any base flood elevation data available from a Federal, State or other source, in order to administer the specific standards of this title.

#### **C. Information to be obtained and maintained.**

1. Obtain and record the actual elevation (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 has been flood proofed.
2. For all new or substantially improved flood proofed structures:
  - i. Verify and record the actual elevation (in relation to mean sea level) to which the structure has been flood proofed.
  - ii. Maintain the flood proofing certifications required in Section 17-11.
3. Maintain for public inspection all records pertaining to the provisions of this title.

#### **D. Alteration of watercourses.**

1. Notify adjacent communities and the South Dakota Planning Bureau prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency.
2. Require that maintenance be provided within the altered or relocated portion of said watercourse so that the flood carrying capacity is not diminished.

#### **E. Interpretation of FIRM boundaries.**

Make interpretations where needed, as to the exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions).

## **Section 17-14 General standards.**

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

- A. All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure and capable of resisting the hydrostatic and hydrodynamic loads;
- B. All manufactured homes must be elevated and anchored to resist flotation, collapse, or lateral movement and capable of resisting the hydrostatic and hydrodynamic loads. Methods of anchoring may include, but are not limited to, over-the-top and frame ties to ground anchors. This requirement is in addition to applicable state and local anchoring requirements for resisting wind forces. Specific requirements shall be:
  - 1. Over-the-top ties shall be provided at each of the four (4) corners of the manufactured home, with two (2) additional ties per side at intermediate locations, with manufactured homes more than fifty (50) feet long requiring one (1) additional tie per side;
  - 2. Frame ties shall be provided at each corner of the home with five (5) additional ties per side at intermediate points, with manufactured homes more than fifty (50) feet long requiring four (4) additional ties per side;
  - 3. All components of the anchoring system be capable of carrying a force of four thousand eight hundred (4,800) pounds; and
  - 4. Any additions to the manufactured home shall be similarly anchored.
- C. All new construction and substantial improvements shall be constructed:
  - 1. With materials and utility equipment resistant to flood damage;
  - 2. Using methods and practices that minimize flood damage; and
  - 3. With electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.
- D. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system;
- E. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters;
- F. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding;
- G. All subdivision proposals shall:

1. Be consistent with the need to minimize flood damage;
  2. Have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage.
  3. Have adequate drainage provided to reduce exposure to flood damage.
- H. Base flood elevation data shall be provided for subdivision proposals and other proposed development that contains at least fifty (50) lots or five (5) acres, whichever is less; and
- I. Encroachments, including fill, new construction, substantial improvements, and other development shall be prohibited in any floodway unless a technical evaluation demonstrates that the encroachments will not result in any increase in flood levels during the occurrence of the base flood discharge.

**Section 17-15 Specific standards.**

In all areas of special flood hazards where base flood elevation data has been provided as set forth in Sections 17-14 (H), the following standards are required:

- A. 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.
- B. Non-residential Construction - New construction and substantial improvement of any commercial, industrial, or other non-residential 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:
1. Be flood proofed so that below the base elevation, the structure is water tight with walls substantially impermeable to the passage of water;
  2. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and
  3. Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting the provisions of this Chapter. Such certifications shall be provided to the flood control officer.