

Chapter 15A-16 - FLOOD PLAIN OVERLAY ZONE

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Chapter 15A-16 - FLOOD PLAIN OVERLAY ZONE

15A-16-01 Findings

- A. Flood hazard areas of Sandy City are subject to periodic inundation which may result in loss of life and property, health hazards, disruptions 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. Flood losses are caused by the cumulative effect of obstructions in areas of special flood hazard which increase flood heights and velocities, and when structures are inadequately anchored, they may damage uses in other areas. Uses that are inadequately flood proofed, elevated, or otherwise protected from flood damage also contribute to flood loss.

15A-16-02 Purpose of the Flood Plain Overlay Zone

It is the purpose of this chapter to promote the public health, safety, and general welfare, and to minimize public and private loss due to flood conditions to specific areas by provisions designed to:

- A. Protect human life and health.
- B. Minimize expenditure of public money for 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, and 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 buyers are notified that property is in an area of special flood hazard.
- H. Ensure that those who occupy the areas of special flood hazards assume responsibility for their actions.

15A-16-03 Methods of Reducing Flood Losses

In order to accomplish its purposes, 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 of erosion, flood heights, or velocities.

- B. Requiring that uses vulnerable to floods, including facilities which 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.
- E. Preventing or regulating the construction of flood barriers which will unnaturally divert flood waters, or which may increase flood hazards in other areas.

15A-16-04 Lands to Which this Ordinance Applies

This chapter shall apply to all areas of special flood hazards within the jurisdiction of Sandy City.

15A-16-05 Basis for Establishing the Areas of Special Flood Hazard

The areas of special flood hazard are those identified by the Federal Emergency Management Agency (FEMA) in a scientific and engineering report entitled "Flood Insurance Study, Salt Lake County, Utah, Unincorporated Areas," the most current and recent updates, with accompanying Flood Insurance Rate Maps (FIRM), Flood Boundary-Floodway Maps and any revision thereto are hereby adopted by reference and declared to be a part of this ordinance. The Flood Insurance Study is on file at Sandy City Hall, 10000 Centennial Parkway, Sandy City, Utah, 84070. When base flood elevation data has not been provided, the Public Utilities Director shall obtain, review, and reasonably utilize any base flood elevation data available from a Federal, State, or other source in order to administer this chapter.

15A-16-06 Compliance

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.

15A-16-07 Abrogation and Greater Restrictions

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

15A-16-08 Interpretation

In the interpretation and application of this ordinance, all provisions shall be:

- A. Considered as minimum requirements.

- B. Liberally construed in favor of the governing body in its protection of the safety of life and property.
- C. Deemed neither to limit nor repeal any other powers granted under State statutes.

15A-16-09 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 hazard or uses permitted within such areas will be free from flooding or flood damages. This ordinance shall not create liability on the part of Sandy City, any officer or employee thereof, or the Federal Emergency Management Agency (FEMA) for any flood damages that result from the reliance on this ordinance or any administrative decision lawfully made hereunder.

15A-16-10 Relationship of Flood Plain Regulations to Zones

The regulations of this chapter shall be supplemental to, and not in lieu of, the applicable zoning provisions of the zone in which the land is located. Property located within said areas of special flood hazard shall be developed only in conformance with the provisions set forth herein. In cases of conflict between such zone classifications and these Flood Plain Overlay Zone Regulations, the most restrictive provisions shall govern. Permitted and conditional uses allowed in the areas of special flood hazard shall be developed only in conformance with the provisions set forth herein. All uses involving development as defined herein shall further meet the supplemental conditions and standards set forth in this chapter.

15A-16-11 Special Flood Hazard Area Approval

A Conditional Use Permit shall be obtained before construction or development begins within an area of special flood hazard. Prior to issuance of a Conditional Use Permit, the Planning Commission shall ensure that requirements of this chapter are met.

Application for such approval shall be made on forms furnished by the Community Development Department 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:

- A. Elevation in relation to mean sea level of the lowest floor (including basement) of all structures.
- B. Elevation in relation to mean sea level to which any structure has been floodproofed.
- C. Certification by a registered professional engineer or architect that the floodproofing methods for any structure meet the floodproofing criteria in this section.
- D. Description of the extent to which any water course will be altered or relocated as a result of proposed

development.

15A-16-12 Responsibility of the Public Utilities Director

The Sandy City Public Utilities Director shall be responsible to:

A. Review Applications

1. Review all applications to determine if the proposed development is located in the floodway or flood plain. If located in the floodway or flood plain, assure that the encroachment provisions of this section are met.
2. Review all applications to determine that the requirements of this ordinance have been satisfied.
3. Review all applications to determine that all necessary permits have been obtained from Federal, State, or local governmental agencies from which prior approval is required.

B. Maintain Information File

1. Obtain and record the actual elevation provided by a registered licensed engineer/surveyor (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, whether or not the structure contains a basement.
2. For all new or substantially improved floodproofed structures:
 - a. Verify and record the actual elevation provided by a registered licensed engineer/surveyor (in relation to mean sea level) to which the structure has been floodproofed.
 - b. Maintain the floodproofing certifications required in this chapter.
3. Maintain for public inspection all records pertaining to the provisions of this ordinance.

C. Verify Alteration of Watercourses. Verify that:

1. A permit has been obtained from the Salt Lake County Division of Flood Control and Water Quality for any alteration of a watercourse identified as a Flood Control Facility in the Ordinances of Salt Lake County or succeeding provision.
2. A permit has been obtained from the State Engineer for alteration of a natural stream channel.
3. Maintenance is provided for within the altered or relocated portion of said watercourse so the flood-carrying capacity is not diminished. County-wide facilities are maintained by Salt Lake County Flood Control Services, and City facilities are maintained by Sandy City.
4. Notification has been made to cities adjacent to the watercourse and to the State of Utah, Division of Comprehensive Emergency Management, prior to any alteration or relocation of a watercourse and evidence of such notification has been submitted to the Federal Emergency Management

Agency.

15A-16-13 Interpretation of Flood Insurance Rate Maps (FIRM) Boundaries

The Public Utilities Director shall make interpretations, where needed, as to the exact location of the boundaries of the areas of special flood hazard. Any person contesting the location of a boundary shall be given a reasonable opportunity to appeal the interpretation as provided in the Appeals Section.

15A-16-14 Appeals

- A. The Board of Adjustment, as established by the Development Code, shall hear and decide all appeals and requests for special exceptions from the requirements of this chapter as provided in this Title. The following conditions shall be considered in addition to those provisions:
1. The danger that materials may be swept into other lands to the injury of others.
 2. The danger to life and property due to flooding or erosion damage.
 3. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner.
 4. The importance of the services provided by the proposed facility to the community.
 5. The necessity of the facility of a waterfront location, where applicable.
 6. The availability of alternative locations for the proposed use which are not subject to flooding or erosion damage.
 7. The compatibility of the proposed use with the existing and anticipated development.
 8. The relationship of the proposed use to the General Plan and Flood Plain issues for that area.
 9. The safety of access to the property in times of flood for ordinary and emergency vehicles.
 10. 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.
 11. The costs of providing governmental services during and after flood conditions including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, water systems, streets, and bridges.
- B. Sandy City shall maintain the records of all appeal actions by the Board of Adjustment and report any special exceptions to the Federal Emergency Management Agency (FEMA) upon request.

15A-16-15 Special Exceptions

- A. The Board of Adjustment shall decide all request for special exceptions that meet the following criteria:
1. Generally, special exceptions may be issued for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing items 1-11 in Section 15-16-14 above have been fully considered. As the lot size increases beyond the one-half acre, the technical justifications required for issuing the variance increases.
 2. Special exceptions 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 the remainder of this section.
 3. Special exceptions shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.
 4. Special exceptions shall only be issued upon a determination that the special exception is the minimum necessary considering the flood hazard to afford relief.
 5. Special exceptions shall only be issued upon:
 - a. A showing of good and sufficient cause.
 - b. A determination that failure to grant the special exception would result in exceptional and undue hardship to the applicant.
 - c. A determination that the granting of a special exception 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 as identified in this section, or conflict with existing local laws or ordinances.
- B. Any applicant to whom a special exception is granted shall be given written notice that the structure will be permitted to be built with a lowest floor elevation below one foot above 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.

15A-16-16 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 shall apply:

- A. Encroachments, including fill, new construction, substantial improvements, and other developments are prohibited unless certification by a registered professional engineer or registered professional land surveyor is provided demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.
- B. All new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of this section.

15A-16-17 Development Standards Within the Flood Plain Overlay Zone

In addition to the general development standards found elsewhere in this Code and all areas of special flood hazards, the following standards shall be required:

A. Anchoring

1. All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure and be capable of resisting the hydrostatic and hydrodynamic loads.
2. All manufactured homes must be elevated and anchored to resist flotation, collapse, or lateral movement and be capable of resisting the hydrostatic and hydrodynamic loads. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable State and local anchoring requirements for resisting wind forces. Specific requirements may include:
 - a. Over-the top ties at each of the four corners of the manufactured home, with two additional ties per side at intermediate locations. Manufactured homes less than 50 feet long may require one additional tie per side.
 - b. Frame ties be provided at each corner of the home with five additional ties per side at intermediate points. Manufactured homes less than 50 feet long may require four additional ties per side.
 - c. That all components of the anchoring system be capable of carrying a force of 4,800 pounds.
 - d. That any additions to the manufactured home be similarly anchored.

B. Construction Materials and Methods

1. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
2. All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.
3. All new construction and substantial improvements shall be constructed with electrical, heating, ventilation, plumbing, 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.

C. Utilities

1. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system.

2. 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.
3. On site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

D. Development Proposals

1. All development proposals shall be consistent with the need to minimize flood damage.
2. All development proposals shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage.
3. All development proposals shall have adequate drainage provided to reduce exposure to flood damage.
4. FEMA approved base flood elevation data shall be provided for development proposals.

E. Residential Construction. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to a minimum of one foot above the base flood elevation.

F. 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 a minimum of one foot above the base flood elevation; or, together with attendant utility and sanitary facilities, shall:

1. Be floodproofed so that below one foot above the base flood level the structure is watertight with walls substantially impermeable to the passage of water.
2. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy.
3. Be certified by a registered professional engineer or architect that the standards of this subsection are satisfied. Such certifications shall be provided to the Community Development Director.

G. Openings in Enclosures Below the Lowest Floor. All new construction, substantial improvements, and fully enclosed areas below the lowest floor that are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of flood waters. 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:

1. 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.
2. The bottom of all openings shall be no higher than one foot above grade.
3. Openings may be equipped with screens, louvers, or other coverings or devices provided they

permit the automatic entry and exit of flood waters.

H. **Manufactured Homes**

1. Manufactured homes shall be anchored in accordance with this section.
2. All manufactured homes or those to be substantially improved shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is one foot above the base flood elevation and is securely anchored to an adequately anchored foundation system.

- I. **Recreational Vehicles.** Require that recreational vehicles be on site for fewer than 180 consecutive days, be fully licensed and ready for highway use, or meet the permit requirements and elevation and anchoring requirements.

15A-16-18 Jordan River Flood Plain - Special Regulations

- A. **Adoption of Printed Volume.** Pursuant to the authority granted to the City by the laws of the State of Utah, the City hereby adopted by reference the provisions contained in an ordinance adopted and printed by Salt Lake County. The said ordinance is entitled Chapter 17.10 and was adopted by the Salt Lake County Commission on July 20, 1994 and is entitled Jordan River Flood Channel Management Ordinance. Copies of the said printed ordinance are on file with the City for information and inspection by the public.

- B. **Amendments to Printed Ordinance.** The following amendments are hereby adopted with regard to the printed ordinance as set forth in Sub-Section A, above:

1. The provisions of Section 17.10.070.A are hereby amended to read as follows:

"In addition to all required Sandy City permits, licenses and approvals, before construction or development begins within any area of the Jordan River flood channel established by Section 17.10.030, approval must be obtained from, and a special permit issued by, the County Engineering Division. Application for such approval and permit shall be made on forms furnished by the County Engineering Division and shall include, but not be limited to:"

2. The provisions of Section 17.10.080 are hereby amended to read as follows:

"Any applicant requesting approval for construction or development within any area of the Jordan River flood channel shall submit to the County Engineering Division and the Sandy City Public Utilities Department six copies of the following studies and reports:"

- C. **Additional Regulations.** In addition to those requirements specifically outlined in Chapter 17.10 of the Salt Lake County Code, the following requirements shall be completed prior to development:

1. The Jordan River Basin has been identified and mapped by Salt Lake County as having a "High Liquefaction Potential". Because of this special characteristic of this area, a site specific natural

hazards study for residential subdivisions, single family structures, multi-family residential structures, industrial, and commercial buildings must be completed and accepted by the Sandy City Engineer before approval for required permits, licenses, and other approvals is issued. The study shall address the soil conditions of the property to be developed, the natural hazards that exist, and proposed mitigation measures to mitigate, if possible, the natural hazards. If the natural hazard cannot be mitigated in a satisfactory manner, no approval shall be given by the Sandy City Engineer.

2. All developments shall comply with the recommendations as made by the Jordan River District and Parkway Development Study completed by Bingham Engineering and accepted by Sandy City in February 1995. Copies of that study are on file with the City for information and inspection by the public.