



## **Memorandum**

**To:** Planning Commission  
**From:** Niall Connolly, Principal Planner  
**Date:** Jan 13, 2023  
**Re:** Flood Hazard Overlay Zone Ordinance - Revisions

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### **Background**

The Town of Springdale joined the National Flood Insurance Program (NFIP) in 2009. A condition of the Town's joining was that the Town was required to adopt a floodplain development ordinance. This ordinance introduced, among other things, floodplain development permits. Participation in the NFIP qualifies all Springdale residents for federally backed and subsidized flood insurance. It also makes federal disaster relief available to Springdale.

To participate in the NFIP, a community's floodplain development ordinance must include certain minimum standards, which are set by FEMA. The Town or State may choose to adopt higher standards, but is not required to. The ordinance adopted by the Town of Springdale (10-13A - Flood Hazard Overlay Zone) was crafted to meet the minimum FEMA requirements.

Town staff recently became aware of two parts of the Town Code which need to be amended to comply with State and FEMA requirements. Staff made a presentation to the Planning Commission on January 4th, 2023 setting out these proposed changes. The Planning Commission is now requested to make a recommendation to the Town Council on whether or not these changes should be adopted.

The proposed changes are as follows:

#### **1. State of Utah Higher Freeboard Standard**

FEMA's basic standard includes a requirement that the floor levels of new residential buildings within the Special Flood Hazard Area (SFHA) must be at, or above the Base Flood Elevation (BFE). The BFE is the height that floodwater is expected to reach in a 1% annual chance flood. This is the standard adopted in Springdale's Ordinance.

More recently, the State of Utah adopted a higher standard, which requires residential floor levels to be set at least one foot higher than the BFE. This precautionary extra height is referred to as a "freeboard". The Town of Springdale is required by the State to adopt this higher standard in the Town's ordinance.

The appendix to this staff report details how it is proposed to amend the ordinance to comply with this State requirement.

#### **2. FEMA's Substantial Improvement/ Substantial Damage Requirements**

Another requirement of the NFIP is that if a building in FEMA's Special Flood Hazard Area is damaged for any reason and the repairs would cost 50% or more of the total value of the structure - the whole building must be brought into compliance with the floodplain development ordinance. This could mean that a homeowner would need to elevate the floor levels of their entire house. The same applies if a property owner improves their structure by more than 50% of the value of the structure. This could include remodeling a property. This is referred to as "Substantial Damage/ Substantial Improvement".

The purpose of this requirement is to ensure that any significant investment in a property within the Special Flood Hazard Area improves the flood resilience of that structure.

Titles 10-21-7 and 10-21-8 of the Springdale Town Code allow the owner of a property, which does not conform with the current Code, to rebuild or repair a non-complying structure following a catastrophic event. It allows existing non-complying elements to be rebuilt/ reestablished, so long as the non-conformities are not expanded.

In a recent review of the Town Code, staff became aware that this provision is at odds with the "Substantial Improvement/ Substantial Damage" requirements of the NFIP. Furthermore, it contradicts the Town's existing Flood Overlay Zone ordinance (Title 10-13A) which codifies substantial improvement/ substantial damage requirements in the Town of Springdale.

The conflict arises because Title 10-21 allows repairs/ reconstruction to be made to properties which are not compliant with the floodplain ordinance, without requiring them to come into compliance if those works are worth more than 50% of the value of the structure.

The appendix to this staff report details how it is proposed to amend the ordinance to comply with FEMA requirements and remove these contradictory provisions.

### ***Planning Commission Action***

The Planning Commission should review the proposed amended wording of these ordinances and determine if the amended wording achieves the goal of closer alignment with the NFIP and State requirements, or alternatively propose other wording which would better achieve this goal. The Planning Commission should make a recommendation to the Town Council on the basis of its deliberations. The Commission may wish to use the following sample motion language:

*The Planning Commission recommends **approval/denial** of the proposed changes to Chapter 10-13A regarding required floor elevations for residential structures in the flood hazard area and to Chapter 10-21 regarding reconstruction of structures in the flood hazard area which are destroyed by catastrophic event, as discussed in the Commission's meeting on January 18, 2023. This motion is based on the following findings:*

**[LIST FINDINGS]**

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## 10-13A-8: PROVISIONS FOR FLOOD HAZARD REDUCTION:

- A. *General standards:* In all areas of special flood hazards the following provisions are required for all new construction and substantial improvements:
1. All new construction or substantial improvements shall be designed (or modified) and adequately anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;
  2. All new construction or substantial improvements shall be constructed by methods and practices that minimize flood damage;
  3. All new construction or substantial improvements shall be constructed with materials resistant to flood damage;
  4. All new construction or substantial improvements shall be constructed 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;
  5. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system;
  6. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the system and discharge from the systems into floodwaters; and
  7. On site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.
  8. In areas where base flood elevation has not been established, the applicant will use all available flood hazard and hydrologic data to calculate an estimated base flood elevation. All new residential construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to ~~or above~~ a minimum of one foot above the estimated base flood elevation. All new nonresidential construction and substantial improvements of nonresidential structures shall have the lowest floor, including basement, elevated to or above the estimated base flood elevation. Alternatively, nonresidential construction and substantial improvements of nonresidential structures shall be designed so that below the estimated base flood elevation the structure is watertight with walls substantially impermeable to the passage of water.
  9. Additional development restrictions and regulations for areas prone to debris flow are found in other sections of this article.
- B. *Specific standards:* In all areas of special flood hazards where base flood elevation data has been provided 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~~ a minimum of one foot above the base flood elevation. A Registered Professional Engineer, Architect, or Land Surveyor shall submit a certification to the Floodplain Administrator that the standard of this subsection as proposed in subsection 10-13A-7.C.1. of this article, is satisfied.
  2. *Nonresidential construction:* New construction and substantial improvements of any commercial, industrial or other nonresidential structure shall either have the lowest floor (including basement) elevated to or above the base flood level or together with attendant utility and sanitary facilities, be designed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting

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hydrostatic and hydrodynamic loads and effects of buoyancy. A Registered Professional Engineer or Architect shall develop and/or review structural design, specifications, and plans for the construction, and shall certify that the design and methods of construction are in accordance with accepted standards of practice as outlined in this subsection. A record of such certification which includes the specific elevation (in relation to mean sea level) to which such structures are floodproofed shall be maintained by the Floodplain Administrator.

3. *Enclosures:* New construction and substantial improvements, with fully enclosed areas below the lowest floor that are usable solely for parking of vehicles, building access or storage in an area other than a basement and which are subject to flooding 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. 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.
- b. The bottom of all openings shall be no higher than one foot above grade.
- c. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

4. *Manufactured homes:*

- a. Require that all manufactured homes to be placed within zone A on a community's FHBM or FIRM shall be installed using methods and practices which minimize flood damage. For the purposes of this requirement, manufactured homes must be elevated and anchored to resist flotation, collapse, or lateral movement. 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.
- b. Require that manufactured homes that are placed or substantially improved within zones A1-30, AH, and AE on the community's FIRM on sites: 1) outside of a manufactured home park or subdivision, 2) in a new manufactured home park or subdivision, 3) in an expansion to an existing manufactured home park or subdivision, or 4) in an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as a result of a flood, be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated to a minimum of one foot or above the base flood elevation and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.
- c. Require that manufactured homes be placed or substantially improved on sites in an existing manufactured home park or subdivision with zones A1-30, AH and AE on the community's FIRM that are not subject to the provisions of subsection B.4.b. of this section be elevated so that either:
  - (1) The lowest floor of the manufactured home is elevated to a minimum of one foot at or above the base flood elevation, or
  - (2) The manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.

5. *Recreational vehicles:* Require that recreational vehicles placed on sites within zones A1-30, AH, and AE on the community's FIRM either:

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- a. Be on the site for fewer than 180 consecutive days,
  - b. Be fully licensed and ready for highway use, or
  - c. Meet the permit requirements of subsection 10-13A-7.C.1. of this article, and the elevation and anchoring requirements for "manufactured homes" in subsection B.4.b. of this section. A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions.
- C. *Standards for subdivision proposals:*
1. All subdivision proposals, including the placement of manufactured home parks and subdivisions, shall be consistent with the purpose and requirements of this article.
  2. All proposals for the development of subdivisions, including the placement of manufactured home parks and subdivisions, shall meet development permit requirements, and the provisions of this section.
  3. Base flood elevation data shall be generated for subdivision proposals and other proposed development, including the placement of manufactured home parks and subdivisions, which is greater than five lots or five acres, whichever is lesser, if not already provided.
  4. All subdivision proposals, including the placement of manufactured home parks and subdivisions, shall have adequate drainage provided to reduce exposure to flood hazards.
  5. All subdivision proposals, including the placement of manufactured home parks and subdivisions, shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize or eliminate flood damage.
- D. *Standards for areas of shallow flooding (AO/AH zones):* Located within the areas of special flood hazard established in section 10-13A-5 of this article, are areas designated as shallow flooding. These areas have special flood hazards associated with base flood depths of one to three feet where a clearly defined channel does not exist and where the path of flooding is unpredictable and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow; therefore, the following provisions apply:
1. All new construction and substantial improvements of residential structures have the lowest floor (including basement) elevated a minimum of one foot above the highest adjacent grade at least as high as the depth number specified in feet on the community's FIRM (at least two feet if no depth number is specified).
  2. All new construction and substantial improvements of nonresidential structures:
    - a. Have the lowest floor (including basement) elevated a minimum of one foot above the highest adjacent grade at least as high as the depth number specified in feet on the community's FIRM (at least two feet if no depth number is specified), or
    - b. Together with attendant utility and sanitary facilities be designed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads of effects of buoyancy.
  3. A registered professional engineer or architect shall submit a certification to the Floodplain Administrator that the standards of this section are satisfied.
  4. Require within zone AH or AO adequate drainage paths around structures on slopes, to guide floodwaters around and away from proposed structures.

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- E. *Floodways*: Since the floodway is an extremely hazardous area due to the velocity of floodwaters which carry debris, potential projectiles and erosion potential, the following provisions shall apply:
1. Encroachments are prohibited, including fill, new construction, substantial improvements and other development within the adopted regulatory floodway unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels within the community during the occurrence of the base flood discharge.
  2. If subsection D.1. of this section is satisfied, all new construction and substantial Improvements shall comply with all applicable flood hazard reduction provisions of this section.
  3. Under the provisions of 44 CFR Chapter 1, Section 65.12, of the National Flood Insurance Regulations, a community may permit encroachments within the adopted regulatory floodway that would result in an increase in base flood elevations, provided that the community first applies for a conditional FIRM and floodway revision through FEMA.

#### **10-21-6: RESTORATION OF NONCONFORMING USE LOST BECAUSE OF CATASTROPHIC EVENT:**

If a building or structure, or any part thereof, is occupied by a nonconforming use and the use is lost partially or totally as a result of fire, explosion, earthquake or other catastrophic event, the building or structure may be repaired or rebuilt pursuant to section 10-21-8 of this chapter and the nonconforming use may be reestablished in the repaired or rebuilt building or structure.

#### **10-21-7: REPAIR OF NONCOMPLYING BUILDING OR STRUCTURE DAMAGED BY CATASTROPHIC EVENT:**

Any noncomplying building or structure that is damaged or destroyed by fire, explosion, earthquake or other catastrophic event may be rebuilt to the configuration of the structure which existed immediately prior to the damage having occurred; provided, however, that in rebuilding the noncomplying structure the noncomplying aspects may not be expanded and, to the extent possible without eliminating any of the preexisting noncomplying aspects, the rebuilding shall be consistent with the current building code. **Notwithstanding this, a rebuilt structure shall be consistent with the Town's current flood hazard reduction provisions, as set out in section 10-13A-8 of this Title.**

#### **10-21-8: MAINTENANCE, REPAIR, ALTERATION AND IMPROVEMENTS TO NONCOMPLYING BUILDING OR STRUCTURE:**

Anything in this chapter notwithstanding, the following shall regulate the maintenance, repair, alteration and improvement of noncomplying buildings and structures. **In all cases, where works constitute a substantial alteration of a structure, the works shall include measures, as necessary, to ensure the structure complies with Town's current flood hazard reduction provisions, as set out in section 10-13A-8 of this Title:☞**

- A. *Ordinary maintenance and repair*: Ordinary maintenance and repair of noncomplying buildings and structures is allowed so long as such maintenance or repair will not result in expansion of any existing nonconformities or creation of new nonconformities. "Ordinary maintenance and repair" means improvements made to a building for the purpose of keeping the structure in a state of repair and protecting the structure from failure or decline. The term shall also apply to the rehabilitation of a building or structure which is in disrepair for the purpose of making the structure safe and sanitary, in accordance with local building code. Further, interior improvements within existing walls, not resulting in additional habitable space, shall be permitted.
- B. *Alterations*:

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1. *Single-family dwellings:*
    - a. A single-family dwelling having nonconforming aspects may be altered or added to if such alteration or addition will not result in expansion of any existing nonconformities or creation of new nonconformities.
    - b. When a single-family dwelling is nonconforming as to setbacks, additions or alterations shall be permitted on the first floor if such addition or alteration will not result in the expansion of any existing nonconformities or the creation of new nonconformities.
  2. *Multi-family dwelling or commercial building:* A duplex, multi-family dwelling or commercial building or structure having nonconforming aspects, but having a use that is conforming, may be altered or added to, with the approval of the Town Council, provided such alteration or addition will not result in an expansion of any existing nonconformities or creation of new nonconformities.