



G R E A T E R S A L T L A K E

**Municipal Services
District**

Planning & Development Services

File # OAM2022-000667

Ordinance Amendment Adopting a Flood Damage Prevention Ordinance

Public Body: Salt Lake County Council

Property Address: Countywide Applicability

Request: Consideration of an Ordinance Enacting Chapter 19.73 of the Salt Lake County Code Entitled Flood Damage Prevention and bring County floodplain regulations into consistency with updated FEMA Regulations.

Date of Report: October 6, 2022

Planner: Brian Tucker, Planning Manager

Planning Staff Recommendation: Approval

Applicant: Salt Lake County Engineering and the Greater Salt Lake Metropolitan Service District

BACKGROUND

The National Flood Insurance Act of 1968 was enacted by Congress as a comprehensive effort to minimize both flood damage and the financial impacts of floods on individuals and federal, state, and local governments. A major component of the 1968 Act was the establishment of the National Flood Insurance Program (NFIP), through which federally backed flood insurance is made available to property owners and residents in communities that choose to participate in the Program. In return for the availability of such insurance, communities adopt and enforce minimum floodplain management requirements within the Special Flood Hazard Area of the community (as depicted on a map issued by the Federal Emergency Management Agency (FEMA)). These requirements are designed to prevent new development from increasing the flood threat and to protect new and existing buildings from anticipated flooding.

Once a community with flood-prone areas is mapped with a Flood Insurance Rate Map (FIRM) issued by FEMA, it may choose to participate in the NFIP. Participation in the NFIP makes property owners in the community eligible to purchase federal flood insurance and receive other benefits not available in nonparticipating communities. The NFIP is a voluntary program administered by FEMA, a component of the U.S. Department of Homeland Security, pursuant to the National Flood Insurance Act of 1968. Salt Lake County has elected to join the program, participate, and enforce a Flood Damage Prevention Ordinance, as well as the requirements and regulations of the NFIP.

DESCRIPTION OF THE PROBLEM

In recent years FEMA has remapped much of Salt Lake County, using more accurate elevation and other data than was available when the previous FIRM maps were created in the 1980's. In addition to the new maps, FEMA is

evaluating the floodplain regulations adopted by the various jurisdictions for compliance with updated FEMA regulations. FEMA has created a new model ordinance for communities to use as the basis for their floodplain regulations. Zach Shaw from the DA's office has taken that model code and adapted it to Salt Lake County. Mr. Shaw has distributed a number of drafts for comment to the MSD, Salt Lake County Engineering and Salt Lake County Flood Control. Mr. Shaw then sent the modified draft to FEMA for an evaluation, and FEMA representatives support the draft.

MIGRATORY BIRD PRODUCTION AREAS

In 2009, Utah Code was amended to allow for the creation of migratory bird production areas. One of the provisions of Title 23, Chapter 28, is that local jurisdictions can not enact a zoning regulation that applies to a migratory bird production area without written approval from all the landowners within the migratory bird production area. For this reason, Staff propose that Chapter 19.74, Floodplain Hazard Regulations continue to apply to the migratory bird production area. The proposed Chapter 19.73, Flood Damage Prevention Ordinance, would apply to the rest of the unincorporated county.

The proposed Chapter 19.73 differs from the existing 19.74 primarily in the amount of detail and specificity included in 19.73 as a result of FEMA's model ordinance. The proposed Chapter 19.73 includes definitions that are lacking in 19.74, along with specific regulations for floodways, enclosures, crawlspaces, recreational vehicles, areas of shallow flooding and coastal areas. The proposed Chapter 19.73 also includes more detailed regulation for subdivisions and manufactured homes within the special flood hazard areas.

PROPOSED ACTION

The next step in the process is to adopt the updated Flood Damage Prevention Ordinance.

MSD, Salt Lake County Engineering and Flood Control, and the DA's Office request Salt Lake County Council adopt Chapter 19.73, the Flood Damage Prevention Ordinance. This ordinance would apply to those areas identified as special flood hazard areas by FEMA within unincorporated Salt Lake County, except for those areas established as migratory bird production areas in accordance with Utah Code. Chapter 19.74, Floodplain Hazard Regulations, is proposed to be amended to apply only to the designated migratory bird production areas.

PUBLIC NOTICE AND COMMENT

Public Notice was provided in accordance with Utah Code 17.27a-205. Public Notice was mailed to affected entities. Notice was also posted in three public locations and on the Utah Public Notice Website at least 10 days prior to the first public hearing. No public comments have been received as of the writing of this report.

PLANNING COMMISSION RECOMMENDATION

The Salt Lake County Planning Commission held a public hearing on October 12, 2022, and the Mountainous Planning District Planning Commission held a public hearing on October 6, 2022, regarding the proposed ordinance. Both Planning Commissions recommended the Salt Lake County Council adopt the ordinance as presented.

OPTIONS FOR THE COUNTY COUNCIL

The Council has three options with respect to the proposed ordinance:

- Option 1: Approve the ordinance as proposed; or
- Option 2: Approve the ordinance with an amendment; or
- Option 3: Deny the ordinance.

STAFF RECOMMENDATION

MSD, Salt Lake County Engineering and Flood Control, and the DA's Office recommend approval of the attached ordinance.

ATTACHMENT

- A. Proposed Ordinance

Attachment A - Proposed Ordinance

SALT LAKE COUNTY ORDINANCE

ORDINANCE NO. _____, 2022

AN ORDINANCE OF THE SALT LAKE COUNTY COUNCIL ENACTING CHAPTER 19.73 OF THE SALT LAKE COUNTY CODE ENTITLED FLOOD DAMAGE PREVENTION TO MAKE REGULATIONS IN THE UNINCORPORATED COUNTY OUTSIDE OF A MIGRATORY BIRD PRODUCTION AREA CONSISTENT WITH FEMA REGULATIONS; AMENDING SECTION 19.74.040 ENTITLED AREAS OF SPECIAL FLOOD HAZARD TO CLARIFY THAT CHAPTER 19.74 IS ONLY APPLICABLE TO MIGRATORY BIRD PRODUCTION AREAS; AND ENACTING RELATED REGULATIONS.

The County Legislative Body of Salt Lake County ordains as follows:

SECTION I. The public hearing and accompany notice required by Utah Code Section 17-27a-205 having taken place, Chapter 19.73 is hereby enacted and Section 19.74.040 is hereby amended as provided herein. The amendments made here are designated by underlining the new substituted words. Words being deleted are designated by brackets and interlineations.

SECTION II. Chapter 19.73 of the Salt Lake County Code of Ordinances is enacted as follows in order to make regulations in the unincorporated county outside of a migratory bird production area consistent with FEMA regulations.

Chapter 19.73 - FLOOD DAMAGE PREVENTION ORDINANCE

19.73.010 - Election to Participate in the National Flood Insurance Program.

The National Flood Insurance Program (NFIP) is a voluntary program administered by FEMA, a component of the U.S. Department of Homeland Security, pursuant to the National Flood Insurance Act of 1968 (P.L. 90-488, as amended). Salt Lake County elects to join the program, participate, and enforce this Flood Damage Prevention Ordinance and the requirements and regulations of the NFIP. The NFIP, established in the aforesaid act, provides that areas of the Unincorporated areas of Salt Lake County having a special flood hazard be identified by FEMA, and that floodplain management measures be applied in such flood hazard areas. Furthermore, Salt Lake County may elect to administer the Flood Damage Prevention Ordinance to areas not identified as Special Flood Hazard Areas (SFHAs) by FEMA on the County's effective Flood Insurance Rate Map (FIRM), if the County has documentation to support that there is an inherent

risk of flooding in such areas and the Council amends this chapter and adopts an updated map with these other areas. This chapter only applies to unincorporated areas of Salt Lake County that are not within a migratory bird production area as defined by State statute.

19.73.020 - Findings.

1. The flood hazard areas of unincorporated Salt Lake County are subject to periodic inundation which results in possible loss of life and property, health and safety hazards, disruption of commerce and governmental services, and extraordinary public expenditures for flood protection and relief, all of which adversely affect the public health, safety, and general welfare.
2. These flood losses are created by the cumulative effect of obstructions in floodplains that cause an increase in flood heights and velocities, and by the occupancy of flood hazard areas by uses vulnerable to floods and hazardous to other lands because they are inadequately elevated, flood-proofed, or otherwise protected from flood damage.

19.73.030 - 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:

1. Protect human life and health;
2. Minimize expenditure of public money for costly flood-control projects;
3. Minimize the need for rescue and relief efforts associated with flooding that are generally undertaken at the expense of the general public;
4. Minimize prolonged business interruptions;
5. Minimize damage to public facilities and utilities, such as gas, water and sewer mains, electric and telephone lines, and streets and bridges located in floodplains.
6. Help maintain a stable tax base by providing for the sound use and development of flood-prone areas in such a manner as to minimize blight to future flood-prone areas;
7. Ensure that potential buyers are notified that property is in a flood area and can make their decisions based on full information.

19.73.040 - Methods of Reducing Flood Losses.

In order to accomplish its purposes, this chapter uses the following methods:

1. Restrict or prohibit uses that are dangerous to health, safety or property in times of flood, or cause excessive increases in flood heights or velocities;

2. Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
3. Control the alteration of natural floodplains, stream channels, and natural protective barriers, which are involved in the accommodation of flood waters;
4. Control filling, grading, dredging and other development which may increase flood damage;
5. Prevent or regulate the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards to other lands.

19.73.050 – Definitions

The following definitions shall apply to terms used in this chapter, including maps incorporated herein. Unless specifically defined below, words or phrases used in this chapter, including maps incorporated herein, shall be interpreted to give them the meaning they have in common usage and to give this chapter its most reasonable application.

100-Year Flood means a flood having a recurrence interval that has a 1-percent chance of being equaled or exceeded during any given year (1-percent-annual-chance flood). The terms “100-hundred-year flood” and “1-percent-annual-chance flood” are synonymous. The term does not imply that the flood will necessarily happen once every 100 hundred years. Mandatory flood insurance requirements may apply.

100-Year Floodplain means the area of land susceptible to being inundated due to the occurrence of a 1-percent-annual-chance flood.

500-Year Flood means a flood having a recurrence interval that has a 0.2-percent chance of being equaled or exceeded during any given year (0.2-percent-annual-chance flood). The term does not imply that the flood will necessarily happen once every 500 years and mandatory flood insurance requirement generally does not apply.

500-Year Floodplain means the area of land susceptible to being inundated due to the occurrence of a 0.2-percent-annual-chance flood.

Accessory Structure is a structure that is on the same parcel of property as a principal structure. Its use is incidental to the use of the principal structure the ownership of the accessory structure is the same owner as of the principal structure. An accessory structure is a non-residential structure of low value that is used solely for the parking of vehicles and storage of tools, materials, or equipment. No human habitation is allowed within an accessory structure.

Addition is any improvement that expands the enclosed footprint or increases the square footage of an existing structure. This includes lateral additions added to the side, front, or rear of a structure; vertical additions added on top of a structure; and enclosures added underneath a structure.

Alluvial Fan Flooding means flooding occurring on the surface of an alluvial fan or similar landform that originates at the apex. It is characterized by high-velocity flows; active processes of erosion, sediment transport, and deposition; and unpredictable flow paths.

Apex means a point on an alluvial fan or similar landform below which the flow path of the major stream that formed the fan becomes unpredictable and alluvial fan flooding can occur.

Appurtenant Structure—see **Accessory Structure**.

Area of Future-Conditions Flood Hazard means the land area that would be inundated by the 1-percent-annual-chance (100-year) flood, based on future-conditions hydrology.

Area of Shallow Flooding means a designated AO, AH, AR/AO, or AR/AH zone on the County's unincorporated community Flood Insurance Rate Map (FIRM) with a 1 percent or greater annual chance of flooding to an average depth of 1 to 3 feet where a clearly defined channel does not exist, where the path of flooding is unpredictable, and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.

Area of Special Flood-Related Erosion Hazard is the land within the County that is most likely to be subject to severe flood-related erosion losses. The area may be designated as Zone E on the Flood Hazard Boundary Map (FHBM). After the detailed evaluation of the special flood-related erosion hazard area, in preparation for publication of the FIRM, Zone E may be further refined.

Base Flood means the flood having a 1-percent chance of being equaled or exceeded in any given year.

Base Flood Elevation (BFE) is the water surface elevation of the 1-percent-annual-chance flood event. It is the height in relation to mean sea level expected to be reached by the waters of the base flood at pertinent points in the floodplains of coastal and riverine areas. It is also the elevation shown on the FIRM and found in the accompanying Flood Insurance Study (FIS) for Zones A, AE, AH, A1-A30, AR, V1-V30, or VE that indicates the water surface elevation resulting from the flood that has a 1-percent chance of equaling or exceeding that level in any given year.

Basement means any area of the building having its floor subgrade (below ground level) on all sides. A walkout basement that does not require a step up to grade is not considered a basement.

Best Available Data is existing flood hazard information reflected on an effective FIRM, FBFM, and/or within an FIS report; or from another source. Other sources may include, but are not limited to, state, other federal agencies, or local studies. To the extent Best Available Data is used as a standard for development, the County Council must approve such standard in accordance with State law.

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 or supporting foundation system.

Any walls below the lowest floor in a building in a V or VE Zone should give way under wind and water loads without causing collapse, displacement, or other damage to the elevated portion of the building of the supporting pilings or columns. Breakaway walls apply only to V or VE Zones.

Building—see **Structure**.

Code of Federal Regulations (CFR) is the codification of the general and permanent rules published in the Federal Register by the executive departments and agencies of the Federal Government.

Conditional Letter of Map Revision (CLOMR) is FEMA's comment on a proposed project that would, upon construction, affect the hydrologic and/or hydraulic characteristics of a flooding source and thus result in the modification of the existing regulatory floodway, the effective BFEs, and/or the SFHA. The letter does not revise an effective map; it indicates whether the project, if built as proposed, would be recognized by FEMA.

Crawlspace means an under-floor space that has its interior floor area (finished or not) no more than 4 feet from the bottom floor joist the next higher floor elevation, designed with proper openings that equalize hydrostatic pressures of flood water, and is not used for habitation. Reference: 19.74.070(H)

Deed Restriction refers to a clause in a deed that limits the future use of the property in some respect.

Development means any human-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, demolition, excavation or drilling operations, or storage either temporary or permanent of equipment or materials.

Elevated Building is a non-basement building built, in the case of a building in Zone A1-30, AE, A, A99, AR, AO, AH, B, C, X and D, to have the top of the elevated floor above the ground level by means of pilings, columns (post and piers), or shear walls parallel to the flow of the water and adequately anchored so as not to impair the structural integrity of the building during a flood of up to the magnitude of the base flood. In the case of a building in Zone A1-30, AE, A, A99, AR, AO, AH, B, C, X and D, an “elevated building” also includes a building elevated by means of fill or solid foundation perimeter walls with openings sufficient to facilitate the unimpeded movement of flood waters.

Enclosure refers to an enclosed walled-in area below the lowest floor of an elevated building.

Erosion means the process of the gradual wearing away of land masses by wind, water, or other natural agents.

Existing Construction refers to structures for which the “start of construction” commenced before the effective date of the FIRM or before January 1, 1975, for FIRMs effective before that date. It may also be referred to as **Existing Structures**.

Existing Manufactured Home Park means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of the floodplain management regulations adopted by the County.

Existing Structures—see **Existing Construction**.

Expansion to an Existing Manufactured Home Park or Subdivision means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufacturing homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

FEMA means the Federal Emergency Management Agency.

FHBM means Flood Hazard Boundary Map.

Fill refers to the placement of materials, such as dirt, sand, or rock to elevate a structure, property, or portion of a property above the natural elevation of the site, regardless of where the material was obtained from. The common practice of removing unsuitable material and replacing with engineered material is not considered fill if the elevations are returned to the existing conditions. Any fill placed or used prior to the area being mapped as a flood hazard area is not deemed as fill.

Flood or Flooding means:

A general and temporary condition of partial or complete inundation of normally dry land areas from:

1. **The overflow of inland or tidal waters.**
2. **The unusual and rapid accumulation or runoff of surface waters from any source.**
3. **Mudslides (i.e., mudflows) that are proximately caused by flooding as defined in element 2 of this Definition and are akin to a river of liquid and flowing mud on the surfaces of normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current.**
4. **The collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding as defined in element 1 of this Definition.**

Flood Insurance Manual is the document FEMA produces twice a year and is used to write flood insurance policies underwritten by the NFIP. The document contains definitions, policy rates, coverage and exclusions, application, and insurance policy forms.

Flood Insurance Rate Map (FIRM) means an official community map of the unincorporated County, on which the Administrator has delineated both the SFHAs and the risk premium zones applicable to the County. The FIRMs effective November 19th, 2021 (or most recent adopted) shall be used by Salt Lake County.

Flood Insurance Study (FIS) or Flood elevation study means an examination, evaluation, and determination of flood hazards and, if appropriate, corresponding water surface elevations, or an examination, evaluation and determination of mudslide (i.e., mudflow) and/or flood-related erosion hazards.

Floodplain Development Permit is the County issued permit or document that is used for any development that occurs within an SFHA identified by FEMA or the County. It is used to address the proposed development to ensure compliance with this chapter.

Floodplain or Flood-Prone Area means any land area susceptible to being inundated by water from any source whether or not identified by FEMA (see definition of **Flooding**).

Floodplain Management means the operation of an overall program of corrective and preventive measures for reducing flood damage, including but not limited to emergency preparedness plans, flood control works, mitigation plans, and floodplain management regulations.

Floodplain Management Regulations means zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as a floodplain ordinance, grading ordinance and erosion control ordinance) and other applications of police power. The term describes such state or local regulations, in any combination thereof, which provide standards for flood damage prevention and reduction.

Flood Opening refers to an opening in the wall of an enclosed structure that allows floodwaters to automatically enter and exit the enclosure. Refer to FEMA Technical Bulletin 1.

Flood Protection System means those physical structural works for which funds have been authorized, appropriated, and expended and which have been constructed specifically to modify flooding in order to reduce the extent of the area within the County subject to an SFHA and to reduce the depths of associated flooding. Such a system typically includes hurricane tidal barriers, dams, reservoirs, levees or dikes. These specialized, flood modifying works are those constructed in conformance with sound engineering standards. FEMA only accredits levees, both private and public, that have been certified by a professional engineer or firm in which the certification shows that the levee have met and continue to meet the minimum regulatory standards cited in Title 44, Chapter 1, Section 65.10 of the Code of Federal Regulations (44 CFR 65.10).

Flood proofing means any combination of structural and non-structural additions, changes, or adjustments to structures that reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents. Floodproofing can either be accomplished in the form of dry floodproofing in which the structure is watertight below the

levels that need flood protection, or wet floodproofing in permanent or contingent measures applied to a structure that prevent or provide resistance to damage from flooding, while allowing floodwaters to enter the structure or area.

Floodway—(Regulatory 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.

Floodway encroachment lines mean the lines marking the limits of floodways on federal, state, and local floodplain maps.

Freeboard means a factor of safety usually expressed in feet above a flood level for purposes of floodplain management. “Freeboard” tends to compensate for the many unknown factors that could contribute to flood heights greater than the height calculated for a selected size flood and floodway conditions, such as wave action, bridge openings, and the hydrological effect of urbanization of the watershed.

Functionally Dependent Use means a development that cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and ship building and repair facilities. It does not include long-term storage or related manufacturing facilities.

Highest Adjacent Grade (HAG) means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure. In AO Zones, the highest adjacent grade is utilized by comparing the lowest floor elevation to that of the highest adjacent grade and the depth of the AO Zone. Reference: 19.74.060 L: Standards for Areas of Shallow Flooding (AO/AH Zones).

Historic Structure means any structure that is:

1. Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
2. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
3. Individually listed on a state inventory of historic places in states with historic reservation programs that have been approved by the Secretary of the Interior; or
4. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:
 - a. By an approved state program as determined by the Secretary of the Interior, or
 - b. Directly by the Secretary of the Interior in states without approved programs.

Letter of Map Amendment (LOMA) means an official amendment, by letter, to an effective FIRM. A LOMA establishes a property’s location in relation to the SFHA. It is usually issued

because a property or structure has been inadvertently mapped as being in the floodplain, when the property or structure is actually on natural high ground above the BFE.

Letter of Map Revision (LOMR) means FEMA's modification or revision to an entire or portion of the effective FIRM, or Flood Boundary and Floodway Map, or both. LOMRs are generally based on the implementation of physical measures that affect the hydrologic or hydraulic characteristics of a flooding source and thus result in the modification of the existing regulatory floodway, the effective BFEs, or the SFHA.

Letter of Map Revision Based on Fill (LOMR-F) means FEMA's amendment, by letter, to an effective FIRM where fill was brought in or used to elevate a property, portion of property or structure above the BFE.

Levee means a man-made structure usually an earthen embankment, designed and constructed in accordance with sound engineering practices to contain, control, or divert the flow of water so as to provide protection from temporary flooding.

Levee System means a flood protection system that consists of a levee, or levees, and associated structures, such as closure and drainage devices, which are constructed and operated in accordance with sound engineering practices.

Lowest Adjacent Grade (LAG) means the lowest natural elevation of the ground surface prior to construction next to the proposed walls of a structure. For an existing structure, it means the lowest point where the structure and ground touch, including but not limited to attached garages, decks, stairs, and basement windows.

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 Section 60.3.

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 attached to the required utilities. The term "manufactured home" does not include a "recreational vehicle"; however, a manufactured home may be used for both residential and non-residential use.

Manufactured Home Park or Subdivision means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

Map means the FHBM or the FIRM for the County issued by FEMA.

Mean Sea Level means, for purposes of the NFIP, the National Geodetic Vertical Datum (NGVD) of 1929, North American Vertical Datum (NAVD) of 1988, or other datum, to which BFEs shown on the unincorporated community FIRM are referenced.

Mixed Use Structures are structures with both a business and a residential component.

New Construction means structures for which the start of construction commenced on or after the effective date of a floodplain management regulation adopted by the County and includes any subsequent improvements to such structures. For the purposes of determining insurance rates, structures for which the “start of construction” commenced on or after the effective date of an initial FIRM or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures.

New Manufactured Home Park or Subdivision means a manufactured home park or subdivision for which the start of construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is commenced on or after the effective date of floodplain management regulations adopted by the County.

No-Rise Certifications are formal certifications signed and stamped by a professional engineer licensed to practice in the state, demonstrating through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that a proposed development will not result in any increase in flood levels within the community during the occurrence of a base flood event.

Physical Map Revision (PMR) is FEMA’s action whereby one or more map panels are physically revised and republished.

Recreational Vehicle means a vehicle which is:

- (a) Built on a single chassis;
- (b) 400 square feet or less when measured at the largest horizontal projection;
- (c) Designed to be self-propelled or permanently towable by a light duty truck; and
- (d) Designed primarily, not for use as a permanent dwelling but, as temporary living quarters for recreational, camping, travel, or seasonal use.

Riverine means relating to, formed by, or resembling a river (including tributaries), stream, brook, creek, etcetera, which can be intermittent or perennial.

Section 1316 refers to the section of the National Flood Insurance Act of 1968, as amended, which provides for the denial of flood insurance coverage for any property that the Administrator finds has been declared by a duly constituted State or local authority to be in violation of State or local floodplain management regulations. Section 1316 is issued for a property, not a property owner, and remains with the property even after a change of ownership.

Special Flood Hazard Area is the land in the floodplain within the County subject to a 1 percent or greater chance of flooding in any given year. The area may be designated as Zone A on the FHBM. After detailed ratemaking has been completed in preparation for publication of the FIRM, Zone A usually is refined into Zones A, AO, AH, A1-30, AE, A99, AR, AR/A1-30, AR/AE, AR/AO, AR/AH, AR/A, or V1-30, VE, or V.

Start of Construction (for other than new construction or substantial improvements under the Coastal Barrier Resources Act (Pub. L. 97-348)) includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition 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 foundations or the 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. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

Structure means, for floodplain management purposes, a walled and roofed building, culvert, bridge, dam, or a gas or liquid storage tank that is principally above ground, as well as a manufactured home.

Structure, for insurance purposes, means:

- (1) A building with two or more outside rigid walls and a fully secured roof, which is affixed to a permanent site;
- (2) A manufactured home; or
- (3) A travel trailer without wheels built on a chassis and affixed to a permanent foundation, that is regulated under the County's floodplain management and building ordinances or laws.

For insurance purposes, “structure” does not mean a recreational vehicle or a park trailer or other similar vehicle, except as described in paragraph (3) of this definition, or a gas or liquid storage tank.

Substantial Damage has the meaning outlined in section 19.74.070(B).

Substantial Improvement has the meaning outlined in section 19.74.070(C)

Variance means a grant of relief by the County from the terms of a floodplain management regulation. Reference: 19.74.060(E) Variance Procedures

Violation means the failure of a structure or other development to be fully compliant with the County's floodplain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in Sections 44 CFR 60.3(b)(5), (c)(4), (c)(10), (d)(3), (e)(2), (e)(4), or (e)(5) is presumed to be in violation until such time as that documentation is provided.

Water surface elevation means the height, in relation to the North American Vertical Datum (NAVD) of 1988, (or other datum, where specified) of floods of various magnitudes and frequencies, such as the 1-percent-annual-chance flood event, in the floodplains of coastal or riverine areas.

Watercourse means the channel and banks of an identifiable water in a creek, brook, stream, river, ditch or other similar feature.

19.73.050 - General Provisions.

A. Lands to Which This Chapter Applies

The chapter shall apply to all special flood hazard areas identified by FEMA within the unincorporated Salt Lake County.

B. Basis for Establishing the Areas of Special Flood Hazard Areas

The special flood hazard areas identified by the Federal Emergency Management Agency in a scientific and engineering report entitled, "The Flood Insurance Study for Salt Lake County and Incorporated Communities," dated November 19, 2021, with accompanying FIRMs, and any revisions thereto are hereby automatically adopted by reference and declared to be a part of this chapter.

C. Establishment of Development Permit

A Floodplain Development Permit shall be required to ensure conformance with the provisions of this chapter. Pursuant to the International Building Code, which is incorporated into the Salt Lake County Code by section 15.08.010, a building permit is required for all proposed construction or other development in the unincorporated county, including the placement of manufactured homes, so that the County may determine whether such construction or other development is proposed within flood-prone areas.

D. Fees

Standard fees may be charged for applications under these provisions pursuant to the process outlined in Salt Lake County Code section 3.42.040, which may include fees for engineering reviews.

E. Abrogation and Greater Restrictions

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

F. Interpretation

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

1. Considered as minimum requirements;
2. Deemed neither to limit nor repeal any other powers granted under state statutes.

G. 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. On rare occasions, greater floods can and will occur and flood heights may be increased by human-made or natural causes.

This chapter does not imply that land outside the special flood hazard areas 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 County or any official or employee thereof for any flood damages that result from reliance on this chapter or any administrative decision lawfully made thereunder.

H. Severability

If any section, provision, or portion of this chapter is adjudged unconstitutional or invalid by a court, the remainder of the chapter shall not be affected.

I. Compliance

No structures or developments including buildings, recreation vehicles, or manufactured homes or land shall hereafter be located, altered, or have its use changed without full compliance with the terms of this chapter and other applicable regulations. Nothing herein shall prevent Salt Lake County from taking such lawful action as is necessary to prevent or remedy any violations. Violations shall be enforced pursuant to Chapter 19.94 of this Title.

J. Stop Work Order

1. Authority. Whenever the floodplain administrator or other designated County official discovers any work or activity regulated by this chapter being performed in a manner contrary to the provision of this chapter, the floodplain administrator is authorized to issue a stop work order.
2. Issuance. The stop work order shall be in writing and shall be given to the owner of the property involved, or to the owner's agent, or to the person doing the work. Upon issuance of a stop work order, the cited work shall immediately cease. The stop work order shall state the reason for the order, and the conditions under which the cited work will be permitted to resume.

3. Unlawful continuance. Any person who shall continue any work after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be subject to penalties as prescribed by Chapter 19.94. All other violations of this chapter shall be subject to the penalties and processes outlined in Chapter 19.94.

19.73.060 Administration

A. Designation of the Floodplain Administrator

The Director of Planning and Development Services or their Designee is hereby appointed the Floodplain Administrator to administer and implement the provisions of this chapter and other appropriate sections of the NFIP Regulations and 44 CFR pertaining to floodplain management. The Floodplain Administrator shall coordinate with and receive direction from the Mayor or Mayor's designee when interpreting or enforcing this chapter or when considering any variances from this chapter. On all other matters arising under this chapter, the Floodplain Administrator is subject to the direction of the Mayor or Mayor's designee at the Mayor/designee's discretion.

B. Duties and Responsibilities of the Floodplain Administrator or Designee

Duties and responsibilities of the Floodplain Administrator or Designee shall include, but not be limited to, the following:

1. Uphold the goals of the County and the NFIP to reduce risk when possible and increase the County's resistance to future disasters.
2. Maintain and hold open for public inspection maps that identify and locate the boundaries of the SFHAs to which this chapter applies, including, but not limited to, the FIRM.
3. Review development proposals to determine whether a proposed building site, including sites designed for the placement of manufactured homes, will be reasonably safe from flooding.
4. Review, approve, or deny all applications for Floodplain Development Permits required by adoption of this chapter.
5. Ensure that all necessary permits have been obtained from federal, state, or local governmental agencies (including from Salt Lake County Flood Control pursuant to Salt Lake County Code Title 17, and approvals under Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334 and the Endangered Species Act of 1973) from which prior approval is required.
6. Assure that the flood carrying capacity within the altered or relocated portion of any watercourse is maintained.

7. Determine the Base Flood Elevation when the FIRM does not do so.
8. Notify, in riverine situations, Salt Lake County Flood Control (pursuant to Salt Lake County Code Title 17), adjacent communities, and the State Coordinating Agency which is State of Utah Engineers Stream Alteration office, prior to any alteration or relocation of a watercourse, and submit evidence of such notification to FEMA.
9. Where interpretation is needed as to the exact location of the boundaries of the special flood hazard areas (for example, where there appears to be a conflict between a mapped boundary and actual field conditions), the Floodplain Administrator shall make the necessary interpretation.
10. When BFE data has not been provided by FEMA, the Floodplain Administrator shall obtain, review, and reasonably utilize any BFE data and floodway data available from a federal, state, or other source including data provided by the applicant, in order to administer the provisions of this chapter.
11. When a FIRM has been adopted but has not identified a regulatory floodway, no new construction, substantial improvements, or other development (including fill) shall be permitted within Zones A1-30, AE, and AH on the County's FIRM, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than 1.00* feet at any point within the County.
12. Under the provisions of 44 CFR Chapter 1, Section 65.12 of the NFIP Regulations, the County may approve certain development in Zones A1-30, AE, and AH on the County's FIRM, which increases the water surface elevation of the base flood by more than 1.00* foot, provided that the County first meets the requirements of Section 65.12 for a conditional FIRM revision through FEMA's CLOMR process.
13. If the project is determined or reasonably believed to cause an adverse effect on the BFE(s), boundaries of the floodplain or any insurable structures, technical justification for the proposed development shall be submitted and the County may require a CLOMR or LOMR to be submitted prior to the permit approval or as a requirement of the permit.

C. Requirement to Submit New Technical Data

1. The property owner or developer shall notify FEMA (and Salt Lake County Flood Control for property on or adjoining County Flood Control Facilities as outlined in Salt Lake County Code Title 17) by submittal of a LOMR within 6 months of project completion when an applicant had obtained a CLOMR from FEMA or

when development altered a watercourse, modified floodplain boundaries, or modified BFE.

2. The property owner or developer shall be responsible for preparing technical data to support the CLOMR or LOMR application and paying any processing or application fees to FEMA. The property owner or developer is responsible for submitting the CLOMR and LOMR to FEMA and shall provide all necessary data to FEMA if requested during the review process to ensure the CLOMR or LOMR is issued.
3. The Floodplain Administrator shall be under no obligation to sign the Community Acknowledgement Form, which is part of the CLOMR/LOMR application, until the applicant demonstrates that the project will or has met the requirements of this chapter, Salt Lake County Code Title 17, and all applicable state federal, and local laws.

D. Permit Procedures

1. Application for a Floodplain Development Permit shall be presented to Salt Lake County Flood Control and the Floodplain Administrator or Designee on forms furnished by him/her and shall include the following, and may include electronic rather than paper versions of the same:
 - a. Plans drawn to scale showing the location, dimensions, and elevation of proposed landscape alterations.
 - b. Plans drawn to scale showing the location, dimensions, and elevation of existing and proposed structures, including the placement of manufactured homes.
 - c. Location of the foregoing in relation to SFHAs.
 - d. Elevation (in relation to mean sea level), of the lowest floor (including basement and crawlspace) of all new and substantially improved structures, if applicable;
 - e. Elevation (in relation to mean sea level), to which any nonresidential structure (if applicable) shall be floodproofed.
 - f. A certificate from a registered professional engineer that the nonresidential floodproofed structure (if applicable) shall meet the floodproofing criteria of this chapter and the NFIP Regulations.
 - g. Description of the extent to which any watercourse or natural drainage will be altered or relocated because of proposed development, if applicable.

- h. All other information that may be reasonably required by the Floodplain Administrator or Salt Lake County Flood Control.
 - i. At the County's discretion, the County may charge a fee for issuance of floodplain development permits in accordance with the process outlined in Salt Lake County Code section 3.42.040.
 - j. Copies of all Floodplain Development Permits and the associated documents shall become property of the County and shall be a permanent record.
2. Approval or denial of a Floodplain Development Permit by the Floodplain Administrator or Designee shall be based on all of the provisions of this chapter. Where all provisions of this chapter are met, the Floodplain Administrator or Designee may impose reasonable conditions to mitigate the following detrimental impacts where there is substantial evidence of heightened risk of the same:
- a. Danger to life and property due to flooding or erosion damage.
 - b. Susceptibility of the proposed facility and its contents to flood damage.
 - c. Danger that materials may be swept onto other lands to the injury of others.
 - d. Safety of access to the property in times of flood for ordinary and emergency vehicles.
 - e. Atypical costs of providing governmental services at this site during and after flood conditions including maintenance and repair of streets and bridges, and public utilities and facilities such as sewer, gas, electrical, and water systems.
 - f. Atypical 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.
 - g. Siting to alternative locations on the property that are not subject to flooding or erosion damage is one such reasonable condition.

E. Variance Procedures

1. The land use hearing officer shall hear and render judgment on requests for variances from the requirements of this chapter, as provided in this chapter and Chapter 19.92.

- a. The Floodplain Administrator shall maintain in perpetuity a record of all variance actions, including justification for their issuance, and shall report variances to FEMA and the State Coordinating Agency upon issuing a variance.
- b. Generally, variances 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 the relevant factors in this chapter have been fully considered. Deviations from this one-half acre limitation may occur, but as the lot size increases beyond the one-half acre, the technical justification required for issuing the variance increases, as outlined in the FEMA Floodplain Management Bulletin on Variances.
- c. Upon consideration of the factors noted above and the intent of this chapter, the Land Use Hearing Officer may attach such conditions to the granting of variances as it deems necessary to further the purpose and objectives of this chapter.
- d. Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.
- e. Variances may be issued for the repair or rehabilitation of historic structures upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure. The term "substantial improvement" does not include any alteration of a structure or facility listed on the National Register of Historic Places or a State Inventory of Historic Places.

2. Prerequisites for granting variances:

- a. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief. Variances shall only be issued upon:
 - i. Showing a good and sufficient cause (compliance with this section and section 19.92.040).
 - ii. A determination that failure to grant the variance would result in exceptional hardship to the applicant.
 - iii. 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, conflict with existing local laws or

ordinances (other than those for which a variance is sought), considers the need of ingress and egress during times of floods, and does not jeopardize first responders' health and welfare.

- b. Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with the lowest floor elevation below the BFE, and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.
- c. Variations may be issued by the County for new construction and substantial improvements and for other development necessary for the conduct of a functionally dependent use provided that:
 - i. The criteria outlined in 19.74.050 Variance Procedures are met; and
 - ii. The structure or other development is protected by methods that minimize flood damages during the base flood and create no additional threats to public safety.

19.73.070 Provisions for Flood Hazard Reduction

A. General Standards

In all special flood hazard areas, 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 flood waters into the system.
6. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the system and discharge from the systems into flood waters.
7. On-site waste disposal systems shall be designed or located to avoid impairment to them or contamination from them during flooding.

B. Substantial Improvement

Any combination of repair, reconstruction, rehabilitation, addition, or improvement of a building or structure, if the cumulative cost of the entire project equals or exceeds 50 percent of the market value of the structure only (not of the structure and land value combined) before the improvement or repair is started is a substantial improvement. If the structure has sustained substantial damage, any repairs are considered substantial improvements regardless of the actual repair work performed. The term does not, however, include either:

1. Any project for improvement of a building required to correct existing health, sanitary, or safety code violations identified by the building official and that are the minimum necessary to assure safe living conditions.
2. Any alteration of a historic structure provided that the alteration will not preclude the structure's continued designation as a historic structure.

C. Substantial Damage

Substantial damage means damage of any origin sustained by a structure whereby the cost of restoring the structure to its pre-damaged condition would equal or exceed 50 percent of the market value of the structure only before the damage occurred. This term also applies to structures which have incurred any damage that equals or exceeds 50 percent of the structure's market value regardless of the actual repair work performed. When a structure or building has been determined as substantially damaged, any work or repair on said structure or building will be considered as substantial improvement and will be required to meet the development requirements set forth within this chapter for substantial improvement.

D. Substantial Improvement and Substantial Damage Determination

For applications for building permits to improve buildings and structures, including alterations, movement, enlargement, replacement, repair, change of occupancy, additions, rehabilitations, renovations, and any other improvement of or work on such buildings and structures, the Floodplain Administrator or Designee, in coordination

with the applicable County officials and staff, shall:

1. Estimate the market value of the building or structure only (not of land) before the start of construction of the proposed work. If the applicant disagrees with the estimated market value, the applicant may obtain an appraisal of the market value prepared by a qualified independent appraiser. In the case of repair, the market value of the building or structure shall be the market value before the damage occurred and before any repairs are made.
2. Compare the cost to perform the improvement, the cost to repair a damaged building to its pre-damaged condition, or the combined costs of improvements and repairs, if applicable, to the market value of the building or structure.
3. Determine and document whether the proposed work constitutes substantial improvement or repair of substantial damage; the determination requires evaluation of previous permits issued for improvements and repairs as specified in 19.74.060 sections B and C.
4. Utilize FEMA's Substantial Improvement/Substantial Desk Reference when making any determination on Substantial Improvement and/or Substantial Damage.

The substantial improvement regulations apply to all of the work that is proposed as the improvement, even if multiple permits are issued. Therefore, the determination of the cost of the improvement should consider all costs of all phases of the work before issuance of the first permit.

5. Notify the applicant that if it is determined that the work constitutes substantial improvement or repair of substantial damage, compliance with the flood regulations of this chapter is required.

E. Residential Construction

New construction and substantial improvement of any residential structure shall have the lowest floor (including basement) elevated to 1 foot above BFE. A registered professional engineer, or land surveyor shall submit certified elevations to the Floodplain Administrator that the standards of this chapter are satisfied.

F. 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 1 foot above the base flood elevation, or together with attendant utility and sanitary facilities be designed so that below 1 foot above the base flood elevation 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. A registered professional engineer 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 that includes the specific elevation (in relation to mean sea level) to which such structures are floodproofed shall be maintained by the Floodplain Administrator. If the use or occupancy of the building changes in the future to residential, then the dry floodproofing of the structure cannot be used when determining compliance of the structure to the residential construction of this chapter. As such, the building will not be grandfathered into compliance and will be required to be brought into compliance with the residential construction requirements of this chapter.

G. Enclosures

New construction and substantial improvements, with fully enclosed areas below the lowest floor that are to be used solely for parking of vehicles, building access, or storage in an area other than a basement, and 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 must meet or exceed the following minimum criteria:

1. A minimum of two flood openings having a total net area of not less than 1 square inch for every square foot of enclosed area subject to flooding shall be provided.
2. The bottom of all flood openings shall be no higher than 1 foot above grade.
3. Flood openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

The development and construction of the structure must conform with the provision in FEMA/Federal Insurance Administration (FIA)-Technical Bulletins 1 and 2. Enclosures below the BFE may only be used for building access, vehicle parking, and storage. Certification and documentation from a professional, licensed engineer is required if the structure's lowest floor is built below the BFE. Applicant shall enter into a maintenance and nonconversion agreement with the County that it will maintain the improvements outlined in this paragraph and not modify or convert them to uses other than approved uses.

H. Crawlspace

New construction and substantial improvements built on a crawlspace or sub-grade (below grade) crawlspace may be permitted if the development is designed and meets or exceeds the standards found in FEMA's Technical Bulletins 1, 2, and 11, which include but are not limited to the following:

1. The structure must be affixed to a permanent foundation, designed and adequately anchored to resist flotation, collapse, and lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy. Because of hydrodynamic loads, crawlspace construction is not allowed in areas with flood velocities greater than 5 feet per second unless the design is reviewed by a qualified design professional, such as a registered professional engineer.
2. The crawlspace is an enclosed area below the BFE and, as such, must have flood openings that equalize hydrostatic pressures by allowing the automatic entry and exit of floodwaters. The bottom of each flood vent opening can be no more than 1 foot above the LAG.
3. The crawlspace enclosure must have proper flood openings that allow equalization of hydrostatic pressure by allowing automatic entry and exit of floodwaters. To achieve this, a minimum of 1 square inch of flood opening is required per 1 square foot of the enclosed area subject to flooding.
4. Portions of the building below the BFE must be constructed with materials resistant to flood damage. This includes not only the foundation walls of the crawlspace used to elevate the building, but also any joists, insulation, piers, or other materials that extend below the BFE. Ductwork must either be placed above the BFE or sealed from floodwaters.
5. Any building utility systems within the crawlspace must be elevated above the BFE or designed so that floodwaters cannot enter or accumulate within the system components during flood conditions.
6. The interior grade of a crawlspace below the BFE must not be more than 2 feet below the LAG.
7. The height of the below-grade crawlspace, measured from the lowest interior grade of the crawlspace floor to the bottom of the floor joist of the next higher floor cannot exceed 4 feet at any point.
8. There must be an adequate drainage system that removes floodwaters from the interior area of the crawlspace. The enclosed area should be drained within a reasonable time after a flood event.

Note: Buildings with below-grade crawlspaces will have higher flood insurance premiums than buildings that have the preferred crawlspace construction, with the interior elevation at or above the LAG.

I. Manufactured Homes

1. All manufactured homes placed within Zone A on the County's FHBM or FIRM shall be installed using methods and practices that 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.
2. Manufactured homes that are placed or substantially improved within Zones A1-30, AH, and AE on the County's FIRM on sites outside of a manufactured home park or subdivision; in a new manufactured home park or subdivision; in an expansion to an existing manufactured home park or subdivision; or in an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as a result of a flood, shall comply with the following: be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated to 1 foot above BFE, and be securely anchored to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.
3. In A-1-30, AH, AO and AE Zones, manufactured homes placed or substantially improved in an existing manufactured home park shall be elevated so that the lowest floor is 1 foot above BFE; or the chassis is supported by reinforced piers no less than 36 inches in height above grade and securely anchored.

J. Recreation Vehicles

Recreational vehicles placed on sites within Zones A1-30, AH, and AE on the County's FIRM shall either:

1. Be on the site for fewer than 180 consecutive days and be fully licensed and ready for highway use;
 - a. 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; or

2. Meet the permit requirements of 19.74.060(D): Permit Procedures, and the elevation and anchoring requirements for "manufactured homes" of this section.

K. Standards for Areas of Shallow Flooding (AO/AH Zones)

Located within the SFHAs established in 19.74.050 A, Lands to Which this Chapter Applies, are areas designated as shallow flooding. These special flood hazard areas associated with base flood depths of 1 to 3 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 1 foot above the highest adjacent grade at least as high as 1 foot above the depth number specified in feet on the County's FIRM (at least 2 feet if no depth number is specified) flood elevation.
2. All new construction and substantial improvements of non-residential structures:
 - a. Have the lowest floor (including basement) elevated to 1 foot above the highest adjacent grade at least as high as 1 foot above the depth number specified in feet on the County's FIRM (at least 2 feet if no depth number is specified).; or
 - b. Together with attendant utility and sanitary facilities be designed so that below 1 foot above 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 shall submit a certification to the Floodplain Administrator that the standards of this subsection have been met.
4. Within Zones AH or AO, adequate drainage paths around structures on slopes of at least 2%, to guide flood waters around and away from proposed structures, is required.

L. Floodways

Because floodways located within SFHAs are extremely hazardous areas due to the velocity of flood waters that carry debris, potential projectiles, and erosion potential, the following provisions shall apply to such floodways adopted by ordinance:

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 County during the occurrence of the base flood discharge.
2. All new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions in this chapter.
3. Under the provisions of 44 CFR Chapter 1, Section 65.12, of the NFIP Regulations, the County may permit encroachments within the adopted regulatory floodway that would result in an increase is, provided that the County first applies for a conditional FIRM and floodway revision through FEMA.

M. Standards for Subdivision Proposals

1. All subdivision proposals including the placement of manufactured home parks and subdivisions shall have adequate drainage provided to reduce exposure to flood hazards.
2. All proposals for the development of subdivisions, including the placement of manufactured home parks, shall meet Development Permit and other requirements of this chapter.
3. BFE data shall be generated for subdivision proposals and other proposed development that is greater than 50 lots or 5 acres, including the placement of manufactured home parks and subdivisions.
4. All subdivision proposals, including the placement of manufactured home parks, shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize or eliminate flood damage.

N. Standards for V1-30, VE, and V Zones

When the Federal Insurance Administrator has identified on the County's unincorporated community FIRM coastal high hazard areas by designating Zones V1-30, VE, and/or V zones, the following standards shall apply to property within such zones:

1. An application for a new or substantially improved structure shall include the elevation (in relation to mean sea level) of the bottom of the lowest horizontal structural member of the lowest floor (excluding pilings and columns), and whether or not such structure contains a basement. The Floodplain Administrator shall maintain a record of all such information.
2. All new construction shall be located landward of the reach of mean high tide.

3. All new construction and substantial improvements shall, in Zones V1-30 and VE (and also Zone V if base flood elevation data is available on the County's unincorporated community FIRM) be elevated on pilings and columns so that:
 - a. 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
 - b. 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.

Water loading values used shall be those associated with the base flood. Wind loading values used shall be those required by applicable State or County building standards. 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 paragraphs (3)(a) and (b) of this subsection (N).
4. All new construction and substantial improvements shall have the space below the lowest floor either free of obstruction or constructed with non-supporting breakaway walls, open wood lattice-work, or insect screening intended to collapse under wind and water loads without causing collapse, displacement, or other structural damage to the elevated portion of the building or supporting foundation system. For the purposes 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 County or State building codes) may be permitted only if a registered professional engineer or architect certifies that the designs proposed meet the following conditions:
 - a. Breakaway wall collapse shall result from a water load less than that which would occur during the base flood; and
 - b. 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 non-structural). Water loading values used shall be those associated with the base flood. Wind loading values used shall be those required by applicable State or County building standards.

Such enclosed space shall be useable solely for parking of vehicles, building access, or storage.
5. The use of fill for structural support of building is prohibited.
6. Man-made alteration of sand dunes and mangrove stands that would increase potential flood damage is prohibited.
7. Manufactured homes shall be placed or substantially improved as follows:
 - a. Outside of a manufactured home park or subdivision,

- b. In a new manufactured home park or subdivision,
 - c. In an expansion to an existing manufactured home park or subdivision,
or
 - d. If on a site in an existing manufactured home park or subdivision on which a manufactured home has incurred substantial damage as a the result of a flood, the manufactured home shall meet the standards of paragraphs (1)-(6) of this subsection (N). If on any other site in such a park or subdivision, the manufactured home shall meet the standards of paragraph (2) of subsection (I).
8. Recreational vehicles shall:
- a. Be on the site for fewer than 180 consecutive days,
 - b. Be fully licensed and ready for highway use (on its wheels or jacking system, attached to the site only by quick disconnect type utilities and security devices and no permanently attached additions), or
 - c. Meet the requirements of paragraphs (1) – (6) of this subsection (N)

SECTION III. Section 19.74.040 is amended as follows in order to clarify that Chapter 19.74 of the Salt Lake County Code is only applicable to migratory bird production areas.

19.74.040 – Areas of special flood hazard

- A. This chapter shall apply to all areas of special flood hazards within the jurisdiction of Unincorporated Salt Lake County that are within a migratory bird production area as defined in State statute. The areas of special flood hazard identified by the Federal Emergency Management Agency in a scientific and engineering report entitled, "The Flood Insurance Study for Salt Lake County and Incorporated Communities," dated November 19, 2021, with accompanying flood insurance rate maps (FIRMs), and any revisions thereto are hereby automatically adopted by reference and declared to be a part of this chapter.
- B. The director of development services shall obtain, review and reasonably utilize any base flood elevation and floodway data available from a federal, state or other source, as criteria for requiring that new construction, substantial improvements, or other development in zone A meet the provisions of Sections 19.74.050, 19.74.150, 19.74.160, 19.74.170 and 19.74.180. Such other source base flood elevation data shall be more specifically provided

by the developer as determined by a registered professional engineer for subdivision and other proposed developments which contain at least fifty lots or five acres (whichever is less).

SECTION IV. This ordinance shall become effective fifteen (15) days after its passage and upon at least one publication of the ordinance or a summary thereof in a newspaper published and having general circulation in Salt Lake County.

APPROVED AND ADOPTED this _____ day of _____, 2022.

SALT LAKE COUNTY COUNCIL

By: _____
Chair

ATTEST:

Sherrie Swensen
Salt Lake County Clerk

REVIEWED AS TO FORM/LEGALITY:

ORDINANCE HISTORY	
Councilmember Bradley voting	_____
Councilmember Bradshaw voting	_____
Councilmember Theodore voting	_____
Councilmember DeBry voting	_____
Councilmember Granato voting	_____
Councilmember Winder Newton voting	_____
Councilmember Alvord voting	_____
Councilmember Snelgrove voting	_____
Councilmember Stringham voting	_____

Vetoed and dated this _____ day of _____, 2022.

By: _____
MAYOR JENNIFER WILSON
OR DESIGNEE

(Complete as Applicable)

Veto override: Yes____ No____ Date_____

Ordinance Published in Newspaper: Date_____

Effective Date of Ordinance:_____

SUMMARY OF
SALT LAKE COUNTY ORDINANCE NO. _____

On the _____ day of _____, 2022, the County Council of Salt Lake County adopted Ordinance No. _____, an ordinance of general revision, enacting chapter 19.73 of the Salt Lake County code entitled Flood Damage Prevention to make regulations in the unincorporated County outside of a migratory bird production area consistent with FEMA regulations; amending section 19.74.040 entitled Areas of Special Flood Hazard to clarify that chapter 19.74 is only applicable to migratory bird production areas; and enacting related regulations.

SALT LAKE COUNTY COUNCIL

By: _____
Chair

ATTEST:

Sherrie Swensen
Salt Lake County Clerk

REVIEWED AS TO FORM/LEGALITY:

Councilmember Bradley voting	_____
Councilmember Bradshaw voting	_____
Councilmember Theodore voting	_____
Councilmember DeBry voting	_____
Councilmember Granato voting	_____
Councilmember Winder Newton voting	_____
Councilmember Alvord voting	_____
Councilmember Snelgrove voting	_____
Councilmember Stringham voting	_____

A complete copy of Ordinance No. _____ is available in the office of the Salt Lake County Clerk, 2001 South State Street, N2-100A, Salt Lake City, Utah.