

**TOWN OF LYONS, COLORADO
ORDINANCE 1075**

**AN ORDINANCE OF THE TOWN OF LYONS AMENDING CERTAIN SECTIONS OF
CHAPTER 18, ARTICLE 13 OF THE LYONS MUNICIPAL CODE
REGARDING FLOOD DAMAGE PREVENTION**

WHEREAS, pursuant to C.R.S. § 29-20-101 *et seq.*, the Town of Lyons ("Town") possesses the authority to implement a floodplain management program within the Town; and

WHEREAS, pursuant to that authority, the Town has previously enacted Chapter 18, Article 13 of the Lyons Municipal Code ("LMC") entitled "Flood Damage Prevention"; and

WHEREAS, the Town suffered historic and catastrophic flooding in September of 2013, emphasizing the need for the Town to implement and administer a floodplain development management program; and

WHEREAS, the floodplain management program enacted by the Town regulates "special flood hazard areas"; and

WHEREAS, it is necessary for the public health and welfare of the Town that "special flood hazard areas" be determined based on the best available data; and

WHEREAS, the Town's Board of Trustees desires to amend the LMC to allow for the use of best available data as reflected in Exhibit A, attached and incorporated hereto; and

WHEREAS, the Board of Trustees finds that the amendments to the Town's floodplain development regulations as set forth in this Ordinance further the public health, safety, convenience and general welfare of the community.

NOW THEREFORE, BE IT ORDAINED BY THE BOARD OF TRUSTEES OF THE TOWN OF LYONS, BOULDER COUNTY, COLORADO:

Section 1. Recitals Incorporated. The recitals set forth above are hereby incorporated by reference and are adopted as findings and determinations of the Board of Trustees.

Section 2. Section 18-13-30 of the Lyons Municipal Code entitled "Statement of Purpose" is hereby amended to read:

It is the purpose of this Article to promote 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, property, 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 and generally undertaken at the expense of the general public.
- (4) Minimize prolonged business interruptions.

- (5) Minimize damage to critical facilities, infrastructure and other public facilities such as water, sewer and gas mains; electric and communications stations; 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 future flood blight areas.
- (7) Ensure that potential buyers are notified that property is located in a flood hazard area.
- (8) Ensure the best available data is used in making development decisions.

Section 3. Section 18-13-50 entitled "Definitions" of the Lyons Municipal Code is hereby amended to read:

Unless specifically defined below, words or phrases used in this Article shall be interpreted to give them the meaning they have in common usage and to give this Article its most reasonable application.

100-year flood means a flood having a recurrence interval that has a one-percent chance of being equaled or exceeded during any given year (one-percent-annual-chance flood). The terms *one-hundred-year flood* and *one-percent-chance flood* are synonymous with the term *100-year flood*. The term does not imply that the flood will necessarily happen once every one-hundred (100) years.

100-year floodplain means the area of land susceptible to being inundated as a result of the occurrence of a one-hundred-year 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-chance-annual flood). The term does not imply that the flood will necessarily happen once every five hundred (500) years.

500-year floodplain means the area of land susceptible to being inundated as a result of the occurrence of a five-hundred-year flood.

Addition means any activity that expands the enclosed footprint or increases the square footage of an existing structure.

Alluvial fan flooding means a fan-shaped sediment deposit formed by a stream that flows from a steep mountain valley or gorge onto a plain or the junction of a tributary stream with the main stream. Alluvial fans contain active stream channels and boulder bars and recently abandoned channels. Alluvial fans are predominantly formed by alluvial deposits and are modified by infrequent sheet flood, channel avulsions and other stream processes.

Appeal means a request for review by the Board of Trustees when it is alleged that there is an error in any requirement, decision or determination made by the Floodplain Administrator in the enforcement or administration of this Article. The process provided in this Article for appeals from decisions made by the Floodplain Administrator shall be used in lieu of the appeal process set forth in Article 1 of this Chapter for appeals from decisions made by the Building Inspector.

Architect means a qualified, licensed, professional Colorado architect in good standing.

Area of shallow flooding means a designated Zone AO or AH on the Town's Flood Insurance Rate Map (FIRM) with a one-percent chance or greater annual chance of flooding to an average depth of one (1) to three (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.

Base flood elevation (BFE) means the elevation shown on a FEMA Flood Insurance Rate Map for Zones AE, AH, A1-A30, AR, AR/A, AR/AE, AR/A1-A30, AR/AH, AR/AO, V1-V30 and VE that indicates the water surface elevation resulting from a flood that has a one-percent chance of equaling or exceeding that level in any given year.

Basement means any area of a building having its floor sub-grade (below ground level) on all sides.

Best Available Data means either

- *The existing scientific and engineering report entitled "The Flood Insurance Study for the Town of Lyons, Colorado," dated December 12, 2012, with accompanying flood insurance rate maps and/or flood boundary-floodway maps (FIRM and/or FBFM) and any revisions thereto); or*
- *Draft or preliminary flood hazard information supplied by FEMA or from another source (such as the floodplain remapping of the Colorado Hazard Mapping Program (CHAMP), Federal Emergency Management Agency (FEMA) Risk MAP.*

Channel means the physical confine of a stream or waterway consisting of a bed and stream banks, existing in a variety of geometries.

Channelization means the artificial creation, enlargement or realignment of a stream channel.

Code of Federal Regulations (CFR) means the codification of the general and permanent Rules published in the Federal Register by the executive departments and agencies of the federal government. It is divided into fifty (50) titles that represent broad areas subject to federal regulation.

Community means any political subdivision in the State that has authority to adopt and enforce floodplain management regulations through zoning, including but not limited to cities, towns, unincorporated areas in the counties, Indian tribes and drainage and flood control districts.

Conditional letter of map revision (CLOMR) means FEMA's comment on a proposed project which does not revise an effective floodplain map, that would, upon construction, affect the hydrologic or hydraulic characteristics of a flooding source and thus result in the modification of the existing regulatory floodplain.

Critical facility means a structure or related infrastructure, but not the land on which it is situated, as specified in Section 18-13-380 of this Article, that, if flooded, may result in significant hazards to public health and safety or interrupt essential services and operations for the Town at any time before, during and after a flood.

Development means any man-made change in improved and unimproved real estate, including but not limited to buildings, decks, stairways, carports or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials.

DFIRM database means the database (usually spreadsheets containing data and analyses that accompany DFIRMs). The FEMA Mapping Specifications and Guidelines outline requirements for the development and maintenance of DFIRM databases.

Digital flood insurance rate map (DFIRM) means a FEMA digital floodplain map. These digital maps serve as "regulatory floodplain maps" for insurance and floodplain management purposes.

Elevated building means a non-basement building: (1) built, in the case of a building in Zones A1-30, AE, A, A99, AO, AH, B, C, X and D, to have the top of the elevated floor above the ground level by means of pilings, columns (posts and piers) or shear walls parallel to the flow of the water; and (2) 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 Zones A1-30, AE, A, A99, AO, AH, B, C, X and D, *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.

Engineer means a qualified, licensed professional Colorado engineer in good standing.

Existing manufactured home park or subdivision 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 a community.

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 manufactured 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).

Federal Register means the official daily publication for rules, proposed rules and notices of federal agencies and organizations, as well as executive orders and other presidential documents.

FEMA means the Federal Emergency Management Agency, the agency responsible for administering the National Flood Insurance Program.

Flood or flooding means a general and temporary condition of partial or complete inundation of normally dry land areas from:

- a. The overflow of water from channels and reservoir spillways;
- b. The unusual and rapid accumulation or runoff of surface waters from any source; or
- c. Mudslides or mudflows that occur from excess surface water which is combined with mud or other debris that is sufficiently fluid so as to flow over the surface of normally dry land areas (such as earth carried by a current of water and deposited along the path of the current).

Flood control structure means a physical structure designed and built expressly or partially for the purpose of reducing, redirecting or guiding flood flows along a particular waterway. These specialized flood-modifying works are those constructed in conformance with sound engineering standards.

Flood Insurance Rate Map (FIRM) means an official map of a community, on which the Federal Emergency Management Agency has delineated both the Special Flood Hazard Areas and the risk premium zones applicable to the community.

Flood insurance study (FIS) means the official report provided by the Federal Emergency Management Agency FEMA. The report contains the Flood Insurance Rate

Map, as well as flood profiles for studied flooding sources that can be used to determine base flood elevations for some areas.

Floodplain or flood-prone area means any land area susceptible to being inundated as the result of a flood, including the area of land over which floodwater would flow from the spillway of a reservoir.

Floodplain Administrator means the Town official designated by title to administer and enforce the floodplain management regulations.

Floodplain development permit means a permit required before construction or development begins within any special flood hazard area (SFHA). If FEMA has not defined the special flood hazard area (SFHA) within the Town or the flood way within the SFHA, the Town shall require permits for all proposed construction or other development in the Town, including the placement of manufactured homes, so that it may determine whether such construction or other development is proposed within flood-prone areas and flood way. Permits are required to ensure that proposed development projects meet the requirements of the National Flood Insurance Program (NFIP) and this Article.

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 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, or any combination thereof, which provide standards for the purpose of flood damage prevention and reduction.

Floodproofing means any combination of structural and/or nonstructural additions, changes or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

Floodway (regulatory floodway) means the channel of a river or other watercourse and 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. The Colorado statewide standard for the designated height to be used for all newly studied reaches shall be six (6) inches. Letters of map revision to existing floodway delineations may continue to use the floodway criteria in place at the time of the existing floodway delineation.

Freeboard means the vertical distance in feet above a predicted water surface elevation intended to provide a margin of safety to compensate for unknown factors that could contribute to flood heights greater than the height calculated for a selected size flood, such as debris blockage of bridge openings and the increased runoff due to urbanization of the watershed.

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

Highest adjacent grade means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

Historic structure means any structure that is:

- a. 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;
- b. Certified or preliminarily determined by the Secretary of Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary of Interior to qualify as a registered historic district;
- c. Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of Interior; or
- d. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:
 1. By an approved state program as determined by the Secretary of Interior, or
 2. Directly by the Secretary of Interior in states without approved programs.

Letter of map revision (LOMR) means FEMA's official revision of an effective Flood Insurance Rate Map (FIRM) or Flood Boundary and Floodway Map, (FBFM) or both.

Letters of map revision (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 base flood elevations (BFEs) or the special flood hazard area (SFHA).

Letter of map revision based on fill (LOMR-F) means FEMA's modification of the special flood hazard area (SFHA) shown on the Flood Insurance Rate Map (FIRM) based on the placement of fill outside the existing regulatory floodway.

Levee means a man-made embankment, usually earthen, 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. For a levee structure to be reflected on the FEMA FIRMs as providing flood protection, the levee structure must meet the requirements set forth in 44 CFR 65.10.

Levee system means a flood protection system which 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 floor means the lowest floor of the lowest enclosed area (including basement); and any floor used for living purposes which includes working, storage, sleeping, cooking and eating, recreation or any combination thereof. This includes any floor that could be converted to such a use, such as a basement or crawl space. The lowest floor is a determinate for the flood insurance premium for a building, home or business. An unfinished or flood-resistant enclosure, usable solely for parking or 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 requirement of Section 60.3 of the National Flood insurance Program regulations.

Manufactured home means a structure transportable in one (1) or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. The term *manufactured home* does not include a recreational vehicle.

Manufactured home park or subdivision means a parcel (or contiguous parcels) of land divided into two (2) or more manufactured home lots for rent or sale.

Material safety data sheet (MSDS) means a form with data regarding the properties of a particular substance. An important component of product stewardship and workplace safety, it is intended to provide workers and emergency personnel with procedures for handling or working with that substance in a safe manner, and includes information such as physical data (melting point, boiling point, flash point, etc.), toxicity, health effects, first aid, reactivity, storage, disposal, protective equipment and spill-handling procedures.

Mean sea level means for purposes of the National Flood Insurance Program, the North American Vertical Datum (NAVD) of 1988 or other datum, to which base flood elevations shown on the Town's Flood Insurance Rate Map are referenced.

National Flood Insurance Program (NFIP) means FEMA's program of flood insurance coverage and floodplain management administered in conjunction with the Robert T. Stafford Relief and Emergency Assistance Act. The National Flood Insurance Program NFIP has applicable federal regulations promulgated in Title 44 of the Code of Federal Regulations. The U.S. Congress established the National Flood Insurance Program in 1968 with the passage of the National Flood Insurance Act of 1968.

New Construction means structures for which the start of construction commenced on or after the effective date of a floodplain management regulation adopted by a community and includes any subsequent improvements to such structures.

New manufactured home park or subdivision 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 on or after the effective date of floodplain management regulations adopted by a community.

No-rise certification means a record of the results of an engineering analysis using common methodologies and standards conducted to determine whether a project will increase flood heights in a floodway. A no-rise certification must be supported by technical data and signed and stamped by an Engineer. The supporting technical data should be based on the standard step-backwater computer model used to develop the 100-year floodway shown on the Flood Insurance Rate Map (FIRM) or Flood Boundary and Floodway Map (FBFM) or be integrated into that study to show no-rise.

Plans—Building or Site means documents drawn to scale and prepared by an Engineer, Architect and Surveyor showing the nature, location, dimensions, elevations and other information for the lot, building, landscape, surface improvements, contours and spot elevations, utility mains and services along with profiles, structures and other physical features of a proposed development, re-development, structure or other improvement placed in the special flood hazard area.

Physical map revision (PMR) means FEMA's action whereby one (1) or more map panels are physically revised and republished. A physical map revision (PMR) is used to change flood risk zones, floodplain and/or floodway delineations, flood elevations and/or planimetric features.

Recreational vehicle means a vehicle which is:

- a. Built on a single chassis;
- b. Four hundred (400) square feet or less when measured at the largest horizontal projections;

- 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.

Reasonable use means the use of the data would not be detrimental to a proposed development or to the community's standing within the NFIP. Reasonable use allows the community to use preliminary information in cases where it is more restrictive [i.e., where there are discharges, floodplain boundaries, or increasing Base Flood Elevations (BFEs)] when compared to the current effective information and not when discharges or BFEs are decreasing when compared to the current effective information.

Special flood hazard area means the land in the floodplain within a community subject to a one-percent-or-greater chance of flooding in any given year; i.e., the 100-year floodplain

Start of construction means the date the building permit was issued, including substantial improvements, provided that the actual start of construction, repair, reconstruction, rehabilitation, addition, placement or other improvement was within one hundred eighty (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 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 a walled and roofed building, or a roofed building supported by columns, including a gas or liquid storage tank, which is principally above ground, as well as a manufactured home, deck, steps, carport.

Substantial damage means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would equal or exceed fifty percent (50%) of the market value of the structure just prior to when the damage occurred.

Substantial improvement means any reconstruction, rehabilitation, addition or other improvement of a structure, the cost of which equals or exceeds fifty percent (50%) of the market value of the structure before start of construction of the improvement. The value of the structure shall be determined by the local jurisdiction having land use authority in the area of interest. This includes structures which have incurred substantial damage, regardless of the actual repair work performed. The term does not, however, include either:

- a. Any project for improvement of a structure to correct existing violations of state or local health, sanitary or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary conditions; or
- b. Any alteration of a historic structure, provided that the alteration will not preclude the structure's continued designation as a historic structure.

Threshold planning quantity (TPQ) means a quantity designated for each chemical on the list of extremely hazardous substances that triggers notification by facilities to the State that such facilities are subject to emergency planning requirements.

Variance means a grant of relief to a person from the requirement of this Article when the Board of Adjustments finds that specific enforcement would result in unnecessary hardship. A variance, therefore, permits construction or development in a manner otherwise prohibited by this Article. (For full requirements, see Section 60.6 of the National Flood Insurance Program regulations).

Violation means the failure of a structure or other development to be fully compliant with the Town's floodplain management regulations. A structure or other development without the elevation certificate, other certifications or other evidence of compliance required in Section 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 in the floodplains of coastal or riverine areas.

Section 4. Section 18-13-70 entitled "Basis for establishing special flood hazard areas" of the Lyons Municipal Code is hereby amended to read:

The special flood hazard areas identified by the best available data and reasonably used by the community. The Floodplain Administrator shall keep a copy of the all best available data such as (Flood Insurance Study (FIS), digital flood insurance rate maps (DFIRMs), flood insurance rate maps (FIRMs) and/or flood boundary and floodway maps (FBFMs), and sources of best available data) on file and available for public inspection.

Section 5. Severability. Should any one or more sections or provisions of this Ordinance be judicially determined invalid or unenforceable, such judgment shall not affect, impair or invalidate the remaining provisions of this Ordinance, the intention being that the various sections and provisions are severable.

Section 6. Repeal. All other ordinances or resolutions or parts of ordinances or resolutions in conflict with the provisions of this Ordinance are hereby repealed, provided that such repeal shall not repeal any repealer clauses in such ordinances nor revive any ordinance thereby.

Section 7. Effective Date. This Ordinance shall become effective thirty (30) days after publication following final passage in accordance with Section 2-2-160 of the Lyons Municipal Code.

Section 8. Codification Amendments. The codifier of the Town's Municipal Code, Municipal Code Corporation, is hereby authorized to make such numerical and formatting changes as may be necessary to incorporate the provisions of Sections 2, of this Ordinance within the Lyons Municipal Code.

INTRODUCED AND PASSED ON FIRST READING THIS 6th DAY OF Jan, 2020.

INTRODUCED, PASSED, ADOPTED AND ORDERED PUBLISHED THIS 21st DAY
OF January, 2020.

TOWN OF LYONS, COLORADO



Connie Sullivan, Mayor



Attachments: - Exhibit A – Redline Changes to Floodplain Regulations

EXHIBIT A

ARTICLE 13 - Flood Damage Prevention Division 1 - General Provisions

Sec. 18-13-10. - Statutory authorization.

The Legislature of the State of Colorado has, in Article 20 of Title 29, C.R.S., delegated the responsibility of local governmental units to adopt regulations designed to minimize flood losses. Therefore, the Board of Trustees does hereby adopt the floodplain management regulations contained in this Article.

Sec. 18-13-20. - Findings of fact.

- (a) The flood hazard areas of the Town are subject to periodic inundation, which can result in 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 health, safety and general welfare of the public.
- (b) These flood losses are created by the cumulative effect of obstructions in floodplains which 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, floodproofed or otherwise protected from flood damage.
- (c) The flood of September 2013 caused great damage to the Town including residences and infrastructure and highlighted the need for increased flood plain regulation. This devastating flood damaged public and private property, with damage to public property occurring from the impacts of private improvements. Of particular concern and consideration is the ability to provide emergency protective services in areas inundated by the floodway and the structures located within the flood way.

Sec. 18-13-30. - Statement of purpose.

It is the purpose of this Article to promote 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, property, 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 and generally undertaken at the expense of the general public.
- (4) Minimize prolonged business interruptions.
- (5) Minimize damage to critical facilities, infrastructure and other public facilities such as water, sewer and gas mains; electric and communications stations; 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 future flood blight areas.
- (7) Ensure that potential buyers are notified that property is located in a flood hazard area.

EXHIBIT A

(8) Ensure the best available data is used in making development decisions.

Sec. 18-13-40. - Methods of reducing flood loss.

In order to accomplish its purposes, this Article 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 flood waters or which may increase flood hazards to other lands.

Sec. 18-13-50. - Definitions.

Unless specifically defined below, words or phrases used in this Article shall be interpreted to give them the meaning they have in common usage and to give this Article its most reasonable application.

100-year flood means a flood having a recurrence interval that has a one-percent chance of being equaled or exceeded during any given year (one-percent-annual-chance flood). The terms *one-hundred-year flood* and *one-percent-chance flood* are synonymous with the term *100-year flood*. The term does not imply that the flood will necessarily happen once every one hundred (100) years.

100-year floodplain means the area of land susceptible to being inundated as a result of the occurrence of a one-hundred-year 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-chance-annual flood). The term does not imply that the flood will necessarily happen once every five hundred (500) years.

500-year floodplain means the area of land susceptible to being inundated as a result of the occurrence of a five-hundred-year flood.

Addition means any activity that expands the enclosed footprint or increases the square footage of an existing structure.

Alluvial fan flooding means a fan-shaped sediment deposit formed by a stream that flows from a steep mountain valley or gorge onto a plain or the junction of a tributary stream with the main stream. Alluvial fans contain active stream channels and boulder bars and recently abandoned channels. Alluvial fans are predominantly formed by alluvial deposits and are modified by infrequent sheet flood, channel avulsions and other stream processes.

Appeal means a request for review by the Board of Trustees when it is alleged that there is an error in any requirement, decision or determination made by the Floodplain Administrator in the enforcement or administration of this Article. The process provided in this Article for appeals from decisions made by the Floodplain Administrator shall be used in lieu of the appeal process set forth in Article 1 of this Chapter for appeals from decisions made by the Building Inspector.

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Base flood elevation (BFE) means the elevation shown on a FEMA Flood Insurance Rate Map for Zones AE, AH, A1-A30, AR, AR/A, AR/AE, AR/A1-A30, AR/AH, AR/AO, V1-V30 and VE that indicates the water surface elevation resulting from a flood that has a one-percent chance of equaling or exceeding that level in any given year.

Basement means any area of a building having its floor sub-grade (below ground level) on all sides.

Best Available Data means either

- The existing scientific and engineering report entitled "The Flood Insurance Study for the Town of Lyons, Colorado," dated December 12, 2012, with accompanying flood insurance rate maps and/or flood boundary-floodway maps (FIRM and/or FBFM) and any revisions thereto; or
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Critical facility means a structure or related infrastructure, but not the land on which it is situated, as specified in Section 18-13-380 of this Article, that, if flooded, may result in significant hazards to public health and safety or interrupt essential services and operations for the Town at any time before, during and after a flood.

Development means any man-made change in improved and unimproved real estate, including but not limited to buildings, decks, stairways, carports or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials.

EXHIBIT A

DFIRM database means the database (usually spreadsheets containing data and analyses that accompany DFIRMs). The FEMA Mapping Specifications and Guidelines outline requirements for the development and maintenance of DFIRM databases.

Digital flood insurance rate map (DFIRM) means a FEMA digital floodplain map. These digital maps serve as "regulatory floodplain maps" for insurance and floodplain management purposes.

Elevated building means a non-basement building: (1) built, in the case of a building in Zones A1-30, AE, A, A99, AO, AH, B, C, X and D, to have the top of the elevated floor above the ground level by means of pilings, columns (posts and piers) or shear walls parallel to the flow of the water; and (2) 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 Zones A1-30, AE, A, A99, AO, AH, B, C, X and D, *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.

Engineer means a qualified, licensed professional Colorado engineer in good standing.

Existing manufactured home park or subdivision 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 a community.

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 manufactured 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).

Federal Register means the official daily publication for rules, proposed rules and notices of federal agencies and organizations, as well as executive orders and other presidential documents.

FEMA means the Federal Emergency Management Agency, the agency responsible for administering the National Flood Insurance Program.

Flood or flooding means a general and temporary condition of partial or complete inundation of normally dry land areas from:

- a. The overflow of water from channels and reservoir spillways;
- b. The unusual and rapid accumulation or runoff of surface waters from any source; or
- c. Mudslides or mudflows that occur from excess surface water which is combined with mud or other debris that is sufficiently fluid so as to flow over the surface of normally dry land areas (such as earth carried by a current of water and deposited along the path of the current).

Flood control structure means a physical structure designed and built expressly or partially for the purpose of reducing, redirecting or guiding flood flows along a particular waterway. These specialized flood-modifying works are those constructed in conformance with sound engineering standards.

Flood Insurance Rate Map (FIRM) means an official map of a community, on which the Federal Emergency Management Agency has delineated both the Special Flood Hazard Areas and the risk premium zones applicable to the community.

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Flood insurance study (FIS) means the official report provided by the Federal Emergency Management Agency FEMA. The report contains the Flood Insurance Rate Map, as well as flood profiles for studied flooding sources that can be used to determine base flood elevations for some areas.

Floodplain or *flood-prone area* means any land area susceptible to being inundated as the result of a flood, including the area of land over which floodwater would flow from the spillway of a reservoir.

Floodplain Administrator means the Town official designated by title to administer and enforce the floodplain management regulations.

Floodplain development permit means a permit required before construction or development begins within any special flood hazard area (SFHA). If FEMA has not defined the special flood hazard area (SFHA) within the Town or the flood way within the SFHA, the Town shall require permits for all proposed construction or other development in the Town, including the placement of manufactured homes, so that it may determine whether such construction or other development is proposed within flood-prone areas and flood way. Permits are required to ensure that proposed development projects meet the requirements of the National Flood Insurance Program (NFIP) and this Article.

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 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, or any combination thereof, which provide standards for the purpose of flood damage prevention and reduction.

Floodproofing means any combination of structural and/or nonstructural additions, changes or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

Floodway (regulatory floodway) means the channel of a river or other watercourse and 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. The Colorado statewide standard for the designated height to be used for all newly studied reaches shall be six (6) inches. Letters of map revision to existing floodway delineations may continue to use the floodway criteria in place at the time of the existing floodway delineation.

Freeboard means the vertical distance in feet above a predicted water surface elevation intended to provide a margin of safety to compensate for unknown factors that could contribute to flood heights greater than the height calculated for a selected size flood, such as debris blockage of bridge openings and the increased runoff due to urbanization of the watershed.

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

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Highest adjacent grade means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

Historic structure means any structure that is:

- a. 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;
- b. Certified or preliminarily determined by the Secretary of Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary of Interior to qualify as a registered historic district;
- c. Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of Interior; or
- d. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:
 1. By an approved state program as determined by the Secretary of Interior, or
 2. Directly by the Secretary of Interior in states without approved programs.

Letter of map revision (LOMR) means FEMA's official revision of an effective Flood Insurance Rate Map (FIRM) or Flood Boundary and Floodway Map, (FBFM) or both. Letters of map revision (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 base flood elevations (BFEs) or the special flood hazard area (SFHA).

Letter of map revision based on fill (LOMR-F) means FEMA's modification of the special flood hazard area (SFHA) shown on the Flood Insurance Rate Map (FIRM) based on the placement of fill outside the existing regulatory floodway.

Levee means a man-made embankment, usually earthen, 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. For a levee structure to be reflected on the FEMA FIRMs as providing flood protection, the levee structure must meet the requirements set forth in 44 CFR 65.10.

Levee system means a flood protection system which 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 floor means the lowest floor of the lowest enclosed area (including basement); and any floor used for living purposes which includes working, storage, sleeping, cooking and eating, recreation or any combination thereof. This includes any floor that could be converted to such a use, such as a basement or crawl space. The lowest floor is a determinate for the flood insurance premium for a building, home or business. An unfinished or flood-resistant enclosure, usable solely for parking or 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 requirement of Section 60.3 of the National Flood Insurance Program regulations.

Manufactured home means a structure transportable in one (1) or more sections, which is built on a permanent chassis and is designed for use with or without a permanent

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*foundation when connected to the required utilities. The term *manufactured home* does not include a recreational vehicle.*

Manufactured home park or subdivision means a parcel (or contiguous parcels) of land divided into two (2) or more manufactured home lots for rent or sale.

Material safety data sheet (MSDS) means a form with data regarding the properties of a particular substance. An important component of product stewardship and workplace safety, it is intended to provide workers and emergency personnel with procedures for handling or working with that substance in a safe manner, and includes information such as physical data (melting point, boiling point, flash point, etc.), toxicity, health effects, first aid, reactivity, storage, disposal, protective equipment and spill-handling procedures.

Mean sea level means for purposes of the National Flood Insurance Program, the North American Vertical Datum (NAVD) of 1988 or other datum, to which base flood elevations shown on the Town's Flood Insurance Rate Map are referenced.

National Flood Insurance Program (NFIP) means FEMA's program of flood insurance coverage and floodplain management administered in conjunction with the Robert T. Stafford Relief and Emergency Assistance Act. The National Flood Insurance Program NFIP has applicable federal regulations promulgated in Title 44 of the Code of Federal Regulations. The U.S. Congress established the National Flood Insurance Program in 1968 with the passage of the National Flood Insurance Act of 1968.

New Construction means structures for which the start of construction commenced on or after the effective date of a floodplain management regulation adopted by a community and includes any subsequent improvements to such structures.

New manufactured home park or subdivision 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 on or after the effective date of floodplain management regulations adopted by a community.

No-rise certification means a record of the results of an engineering analysis using common methodologies and standards conducted to determine whether a project will increase flood heights in a floodway. A no-rise certification must be supported by technical data and signed and stamped by an Engineer. The supporting technical data should be based on the standard step-backwater computer model used to develop the 100-year floodway shown on the Flood Insurance Rate Map (FIRM) or Flood Boundary and Floodway Map (FBFM) or be integrated into that study to show no-rise.

Plans—Building or Site means documents drawn to scale and prepared by an Engineer, Architect and Surveyor showing the nature, location, dimensions, elevations and other information for the lot, building, landscape, surface improvements, contours and spot elevations, utility mains and services along with profiles, structures and other physical features of a proposed development, re-development, structure or other improvement placed in the special flood hazard area.

Physical map revision (PMR) means FEMA's action whereby one (1) or more map panels are physically revised and republished. A physical map revision (PMR) is used to change flood risk zones, floodplain and/or floodway delineations, flood elevations and/or planimetric features.

Recreational vehicle means a vehicle which is:

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- a. Built on a single chassis;
- b. Four hundred (400) square feet or less when measured at the largest horizontal projections;
- 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.

Reasonable use means the use of the data would not be detrimental to a proposed development or to the community's standing within the NFIP. Reasonable use allows the community to use preliminary information in cases where it is more restrictive [i.e., where there are discharges, floodplain boundaries, or increasing Base Flood Elevations (BFEs)] when compared to the current effective information and not when discharges or BFEs are decreasing when compared to the current effective information.

Special flood hazard area means the land in the floodplain within a community subject to a one-percent-or-greater chance of flooding in any given year; i.e., the 100-year floodplain.

Start of construction means the date the building permit was issued, including substantial improvements, provided that the actual start of construction, repair, reconstruction, rehabilitation, addition, placement or other improvement was within one hundred eighty (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 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 a walled and roofed building, or a roofed building supported by columns, including a gas or liquid storage tank, which is principally above ground, as well as a manufactured home, deck, steps, carport.

Substantial damage means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would equal or exceed fifty percent (50%) of the market value of the structure just prior to when the damage occurred.

Substantial improvement means any reconstruction, rehabilitation, addition or other improvement of a structure, the cost of which equals or exceeds fifty percent (50%) of the market value of the structure before start of construction of the improvement. The value of the structure shall be determined by the local jurisdiction having land use authority in the area of interest. This includes structures which have incurred substantial damage, regardless of the actual repair work performed. The term does not, however, include either:

- a. Any project for improvement of a structure to correct existing violations of state or local health, sanitary or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary conditions; or

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b. Any alteration of a historic structure, provided that the alteration will not preclude the structure's continued designation as a historic structure.

Threshold planning quantity (TPQ) means a quantity designated for each chemical on the list of extremely hazardous substances that triggers notification by facilities to the State that such facilities are subject to emergency planning requirements.

Variance means a grant of relief to a person from the requirement of this Article when the Board of Adjustments finds that specific enforcement would result in unnecessary hardship. A variance, therefore, permits construction or development in a manner otherwise prohibited by this Article. (For full requirements, see Section 60.6 of the National Flood Insurance Program regulations).

Violation means the failure of a structure or other development to be fully compliant with the Town's floodplain management regulations. A structure or other development without the elevation certificate, other certifications or other evidence of compliance required in Section 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 in the floodplains of coastal or riverine areas.

Sec. 18-13-60. - Lands to which regulations apply.

This Article shall apply to all special flood hazard areas and areas removed from the floodplain by the issuance of a FEMA letter of map revision based on fill (LOMR-F) within the jurisdiction of the Town. The Town adopts by reference the "Design Report for Lyons Valley Park Bridge St. Vrain Creek Crossing" (the "Report"), dated revised March 19, 2001, prepared by Hurst & Associates, Inc., to identify the physical character of the St. Vrain Creek floodplain at the area of the Lyons Valley Park bridge crossing (McConnell Street at approximately U.S. Highway 36/66) and to govern the construction and design of improvements within the limited floodplain as described in such Report.

Sec. 18-13-70. - Basis for establishing special flood hazard areas.

The special flood hazard areas identified by the best available data and reasonably used by the community. ~~FEMA in a scientific and engineering report entitled "The Flood Insurance Study for the Town of Lyons, Colorado," dated December 12, 2012, with accompanying flood insurance rate maps and/or flood boundary/floodway maps (FIRM and/or FBFM) and any revisions thereto are hereby adopted by reference and declared to be a part of this Article. These special flood hazard areas identified by the flood insurance study (FIS) and attendant mapping are the minimum area of applicability of this Article and may be supplemented by studies designated and approved by the Board of Trustees.~~ The Floodplain Administrator shall keep a copy of the all best available data such as ~~(~~ Flood Insurance Study (FIS), digital flood insurance rate maps (DFIRMs), flood insurance rate maps (FIRMs) and/or flood boundary and floodway maps (FBFMs), and sources of best available data) on file and available for public inspection.

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