

TOWN OF BRIDGEWATER, NEW HAMPSHIRE

FLOODPLAIN DEVELOPMENT ORDINANCE

APPENDIX A AND ARTICLE IV-F OF  
THE BRIDGEWATER ZONING ORDINANCE

Adopted June 18, 1991

Amended March 14, 1995

Amended March 13, 2007

April 2005

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HISTORY

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### APPENDIX A AND ARTICLE IV-F OF THE BRIDGEWATER ZONING ORDINANCE

#### **PURPOSE AND AUTHORITY**

This ordinance, adopted pursuant to the authority of RSA 674:16, shall be known as The Town of Bridgewater Floodplain Development Ordinance. The regulations in this ordinance shall overlay and supplement the regulations in The Town of Bridgewater Zoning Ordinance, and shall be considered part of the Zoning Ordinance for purposes of administration and appeals under State law. If any provision of this ordinance differs or appears to conflict with any provision of the Zoning Ordinance or other ordinance or regulation, the provision imposing the greater restriction or more stringent standard shall be controlling.

Pursuant to RSA674:56, by resolution of the Board of Selectmen all lands designated as special flood hazard areas by the Federal Emergency Management Agency (FEMA) in its "Flood Insurance Study for the County of Grafton, NH dated \_\_02/20/2008\_\_ " together with the associated Flood Insurance Rate Maps (FIRM) dated \_\_02/20/2008\_\_ are declared to be a part of the Town of Bridgewater, N.H Zoning Ordinance and are hereby incorporated by reference.

#### **ITEM I: DEFINITION OF TERMS**

The following definitions shall apply only to this Floodplain Development Ordinance, and shall not be affected by the provisions of any other ordinance of the Town of Bridgewater.

**AREA OF SPECIAL FLOOD** is the land in the floodplain within the Town of Bridgewater subject to a one percent (1%) or greater possibility of flooding in any given year. The Area is designated as zones A and AE on the Flood Insurance Rate Maps (FIRM).

**BASE FLOOD** means the flood having a one percent (1%) possibility of being equaled or exceeded in any given year.

**BASEMENT** means any area of a building having its floor subgrade on all sides.

**BUILDING** - see STRUCTURE.

DEVELOPMENT means any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation, drilling operation or storage of equipment or materials.

FEMA means the Federal Emergency Management Agency.

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

- (1) the overflow in inland or tidal waters.
- (2) the unusual and rapid accumulation or runoff of surface waters from any source.

FLOOD ELEVATION STUDY means an examination, evaluation, and determination of flood hazards and if appropriate, corresponding water surface elevations, or an examination and determination of mudslide or flood-related erosion hazards.

FLOOD INSURANCE RATE MAP (FIRM) means an official map incorporated with this ordinance, on which FEMA has delineated both the special flood hazard areas and the risk premium zones applicable to the Town of Bridgewater.

FLOOD INSURANCE STUDY – see FLOOD ELEVATION STUDY (above).

FLOODPLAIN or FLOOD-PRONE AREA means any land area susceptible to being inundated by water from any source (See definition of FLOODING, above.)

FLOOD PROOFING means any combination of structural and non-structural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitation facilities, structures and their contents.

FLOODWAY – see REGULATORY FLOODWAY.

FUNCTIONALLY DEPENDENT USE means a use which cannot perform its intended purposes unless it is located or carried out in close proximity to water. The term includes only docking and port facilities that are necessary for the loading/unloading of cargo or passengers, and ship building/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 requirements for individual listing on the National Register;
- (b) 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;
- (c) Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the 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 the Interior, or
  - 2) Directly by the Secretary of the interior in states without approved programs.

LOWEST FLOOR means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, useable 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 an enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of this ordinance.

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 connected to the required utilities. For flood plain management purposes the term MANUFACTURED HOME includes park trailers, travel trailers, and other similar vehicles placed on site for greater than one hundred eighty (180) days. This includes manufactured homes located in a manufactured home park or subdivision.

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.

MEAN SEA LEVEL means the National Geodetic Vertical Datum (NGVD) of 1929 or other datum, to which base flood elevations shown on a community's Flood Insurance Rate Map are referenced.

NEW CONSTRUCTION means, for 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 structured. For floodplain management purposes, *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.

100-YEAR FLOOD, see BASE FLOOD.

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 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.

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.

SPECIAL FLOOD HAZARD AREAS (See AREA OF SPECIAL FLOOD HAZARD).

START OF CONSTRUCTION includes substantial improvements, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, 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 the structure on site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the state of excavation; or the placement of 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, footing, 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 part of the main structure.

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

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 before the damage occurred.

SUBSTANTIAL IMPROVEMENT means any combination of repairs, reconstruction, alteration, or improvements to a structure in which the cumulative cost equals or exceeds fifty percent (50%) of the market value of the structure. The market value of the structure should equal:

- (1) the appraised value prior to the start of the initial repair or improvement, or
- (2) in the case of damage, the value of the structure prior to the damage occurring.

For the purposes of this definition, SUBSTANTIAL IMPROVEMENT is considered to occur when the first alteration of any wall, ceiling, floor, or the structural part of the building commences, whether or not that alteration affects the external dimensions of the structure. This term includes structures which have incurred substantial damage, regardless of actual repair work performed. The term does not, however, include any project for improvement of a structure required to comply with existing health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions or any alteration of a HISTORIC STRUCTURE, provided that the alteration will not preclude the structure's continued designation as a HISTORIC STRUCTURE.

VIOLATION means the failure of a structure or other development to be fully compliant with the community's floodplain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in 44CFR 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 National Geodetic Vertical Datum (NGVD) of 1929, (or other datum, where specified) of floods of various magnitudes and frequencies in the floodplain.

## **ITEM II: PERMIT REQUIRED**

All proposed development in any such flood hazard areas shall require a permit.

### **ITEM III: PERMIT APPLICATION REVIEW**

The Building Inspector shall review all building permit applications for new construction or substantial improvements to determine whether proposed building sites will be reasonably safe from flooding. If a proposed building site is located in a special flood hazard area, all new construction or substantial improvements shall:

- (i) 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,
- (ii) be constructed with materials resistant to flood damage,
- (iii) be constructed by methods and practices that minimize flood damage,
- (iv) 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..

### **ITEM IV: REPLACEMENT OF WATER AND SEWER SYSTEMS**

Where new or replacement water and sewer systems (including on-site systems) are proposed in a special flood hazard area the applicant shall provide the Building Inspector with assurance that these systems will be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters, and on-site waste disposal systems will be located to avoid impairment to them or contamination from them during periods of flooding.

### **ITEM V: INFORMATION REQUIRED**

For all new or substantially improved structures located in Zones A or AE, the applicant shall furnish the following information to the Building Inspector:

- (a) the as-built elevation (in relation to NGVD) of the lowest floor (including basement) and include whether or not such structures contain a basement.
- (b) if the structure has been flood proofed, the as-built elevation (in relation to NGVD) to which the structure was flood proofed.
- (c) any certification of flood proofing.

The Building Inspector shall maintain for public inspection, and shall furnish such information upon request.

#### **ITEM VI: GOVERNMENTAL PERMITS REQUIRED**

The Building Inspector shall not grant a building permit until the applicant certifies that all necessary permits have been received from those governmental agencies from which approval is required by Federal or State law, including Section 404 of the Federal Water Pollution Control Act, Amendments of 1972, 33 U.S.C. 1334.

#### **ITEM VII: ALTERATION OR RELOCATION OF WATERCOURSES**

1. In riverine situations, prior to the alteration or relocation of a watercourse the applicant for such authorization shall notify the Wetlands Bureau of the New Hampshire Department of Environmental Services and submit copies of such notification to the Building Inspector, in addition to copies required by RSA 482-A:3. Further, the applicant shall be required to submit copies of said notification to those adjacent communities as determined by the Building Inspector, including notice of all scheduled hearings before the Wetlands Bureau.
2. The applicant shall submit to the Building Inspector, certification provided by the registered professional engineer, assuring that the flood carrying capacity of an altered or relocated watercourse can and will be maintained.
3. The Building Inspector shall obtain, review, and reasonably utilize any floodway data available from Federal, State, or other sources as criteria for requiring that all development located in Zone A meet the following floodway requirement:

"No encroachments, including fill, new construction, substantial improvement, and other development are allowed within the floodway that would result in any increase in flood levels within the community during the base flood discharge."
4. Along watercourses that have not had a Regulatory Floodway designated or determined by a Federal, State or other source, no new construction, substantial improvements, or other development (including fill) shall be permitted within zone AE on the FIRM, unless it is demonstrated by the applicant that the cumulative effect of the proposed development, when combined with all existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot (1') at any point within the community.

5. Along watercourses with a designated Regulatory Floodway, no encroachments, including fill, new construction, substantial improvements, or other development are allowed within the floodway unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practices that the proposed encroachment would not result in any increase in the flood levels within the community during the base flood discharge.

**ITEM VIII: SPECIAL FLOOD HAZARD AREAS**

1. In special flood hazard areas, the Building Inspector shall determine the one hundred (100) year flood elevation in the following order of precedence according to the data available:
  - a. In zone AE refer to elevation data provided in the community's Flood Insurance Study and accompanying FIRM.
  - b. In A zones, the Building Inspector shall obtain, review, and reasonably utilize any one hundred (100) year flood elevation data available from any Federal, State or other source including data submitted for development proposals submitted to the community (i.e. subdivision, site approvals).
2. The Building Inspector's one hundred (100) year flood elevation determination will be used as criteria for requiring in zones AE and A that:
  - a. all new construction or substantial improvements of residential structures have the lowest floor (including basement) elevated to or above the one hundred (100) year flood elevation;
  - b. that all new construction or substantial improvements of non-residential structures have the lowest floor (including basement) elevated to or above the one hundred (100) year flood level; or together with attendant utility and sanitary facilities, shall:
    - (i) be floodproofed so that below the one hundred (100) year flood elevation the structure is watertight with walls substantially impermeable to the passage of water;
    - (ii) have structural components capable of resisting hydrostatic and hydrodynamic loads and the effects of buoyancy; and
    - (iii) be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting the provision of this section;

- c. all manufactured homes to be placed or substantially improved within special flood hazard areas shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is at or above the base flood level; and be securely 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;
- d. for all new construction and substantial improvements, fully enclosed areas below the lowest floor that are subject to flooding are permitted provided they meet the following requirements:
  - (1) the enclosed area is unfinished or flood resistant, usable solely for parking or vehicles, building access or storage;
  - (2) the area is not a basement;
  - (3) shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwater.

Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria:

- (1) a minimum of two (2) openings having a total net area of not less than one (1) square inch for every square foot of enclosed area subject to flooding shall be provided,
  - (2) the bottom of all openings shall be no higher than one foot (1') above the grade,
  - (3) Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwater.
- e. recreational vehicles placed on sites within zone AE shall either:
    - (i) be on the site for fewer than one hundred eighty (180) days,
    - (ii) be fully licensed and ready for highway use, or

- (iii) meet all the standards of Section 60.3(b)(1) of the National Flood Insurance program Regulations paragraph (c)(6) of Section 60.3.

**ITEM IX: VARIANCES AND APPEALS**

1. Any order, requirement, decision or determination of the Building Inspector made under this ordinance may be appealed to the Zoning Board of Adjustment as set forth in RSA 676:5.
2. If the application, upon appeal, requests a variance as authorized by RSA 674:33,1(b), the applicant shall have the burden of showing in addition to the usual variance standards under State law:
  - (a) that the variance will not result in increased flood heights, additional threats to public safety, or extraordinary public expense.
  - (b) that if the requested variance is for activity within a designated regulatory floodway, no increase in flood levels during the base flood discharge will result.
  - (c) that the variance is the minimum necessary, considering the flood hazard, to afford relief.
3. The Zoning Board of Adjustment shall notify the applicant in writing that:
  - (i) the issuance of a variance to construct below the base flood level will result in increased premium rates for flood insurance up to amounts as high as \$25.00 for \$100.00 of insurance coverage, and
  - (ii) such construction below the base flood level increases risks to life and property.

Such notification shall be maintained with a record of all variance actions.

4. The community shall:
  - (i) maintain a record of all variance actions, including their justification for their issuance, and
  - (ii) report such variances issued in its annual or biennial report submitted to FEMA's Federal Insurance Administrator.