

SECTION 15 FLOODPLAIN MANAGEMENT

15.1 Purpose

Certain areas of the City of Gardiner, Maine, are subject to periodic flooding, causing serious damages to properties within these areas. Relief is available in the form of flood insurance as authorized by the National Flood Insurance Act of 1968.

Therefore, the City of Gardiner, Maine, has chosen to become a participating community in the National Flood Insurance Program, and agrees to comply with the requirements of the National Flood Insurance Act of 1968 (P.L. 90-488, as amended) as delineated in this Floodplain Management Ordinance.

It is the intent of the City of Gardiner, Maine, to require the recognition and evaluation of flood hazards in all official actions relating to land use in the floodplain areas having special flood hazards.

The City of Gardiner has the legal authority to adopt land use and control measures to reduce future flood losses pursuant to 30-A M.R.S.A. Sections 3001-3007, 4352, 4401-4407, and 38 M.R.S.A. Section 440.

The National Flood Insurance Program, established in the aforesaid Act, provides that areas of the City of Gardiner having a special flood hazard be identified by the Federal Emergency Management Agency and that floodplain management measures be applied in such flood hazard areas. This Ordinance establishes a flood hazard development permit system and review procedure for development activities in the designated flood hazard areas of the City of Gardiner, Maine.

The areas of special flood hazard, Zones A and AE, for the City of Gardiner, Kennebec County, Maine, identified by the Federal Emergency Management Agency in a report entitled "Flood Insurance Study - Kennebec County," dated June 16, 2011 with accompanying "Flood Insurance Rate Map" dated June 16, 2011 with panels: 654, 656, 657, 658, 659, 661, 662, 666, 667, 669 derived from the county wide digital flood insurance rate map entitled "Digital Flood Insurance Rate Map, Kennebec County," are hereby adopted by reference and declared to be a part of this Ordinance. *(Amendment adopted by the Gardiner City Council June 08, 2011, Effective July 08, 2011 Order #11-39)*

15.2 Permit Required

Before any construction or other development including the placement of manufactured homes, begins within any special flood hazard area, a flood hazard development permit shall be obtained from the Code Enforcement Officer. This permit shall be in addition to any other permits which may be required pursuant to the codes and ordinances of the City of Gardiner, Maine.

15.3 Application for a Permit

The application for a flood hazard development permit shall be submitted to the Code Enforcement Officer and shall include:

15.3.1 The name, address and phone number of the applicant, owner, and contractor;

15.3.2 An address and a map indicating the location of the construction site;

15.3.3 A site plan showing location of existing and/or proposed development, including but not limited to structures, sewage disposal facilities, water supply facilities, areas to be cut and filled, and lot dimensions;

15.3.4 A statement of the intended use of the structure and/or development;

15.3.5 A statement of the cost of the development including all materials and labor;

15.3.6 A statement as to the type of sewage system proposed;

15.3.7 Specification of dimensions of the proposed structure and/or development;

15.3.8 The elevation in relation to the National Geodetic Vertical Datum (NGVD), or to a locally established datum in Zone A only, of the:

15.3.8.1 Base flood at the proposed site of all new or substantially improved structures, which is determined:

15.3.8.1.1 In Zone AE, from data contained in the "Flood Insurance Study - City of Gardiner, Maine, or

15.3.8.1.2 In Zone A:

15.3.8.1.2.1 From any base flood elevation data from federal, state, or other technical sources (such as FEMA's Quick-2 model, FEMA 265/July 1995), including information obtained pursuant to section 15.6.11 and section 15.8.4;

15.3.8.1.2.2 From the contour elevation extrapolated from a best fit analysis of the floodplain boundary when overlaid onto a USGS Quadrangle Map or other topographic map prepared by a professional land surveyor or registered professional engineer, if the floodplain boundary has a significant correlation to the elevation contour line(s); or, in the absence of all other data,

15.3.8.1.2.3 To be the elevation of the ground at the intersection of the floodplain boundary and a line perpendicular to the shoreline which passes along the ground through the site of the proposed building.

15.3.8.2 The Highest and lowest grades at the site adjacent to the walls of the proposed building;

15.3.8.3 The lowest floor, including basement; and whether or not such structures contain a basement;

15.3.8.4 In the case of a non-residential structures only, the level to which the structure will be flood-proofed;

15.3.9 A description of an elevation reference point established on the site of all developments for which elevation standards apply as required in section 15.6;

15.3.10 A written certification by a professional land surveyor, registered professional engineer or architect that the base flood elevation and grade elevations shown on the application are accurate;

15.3.11 The following certifications as required in section 15.6 by a registered professional engineer or architect:

15.3.11.1 A flood-proofing certificate (FEMA Form 81-65, 03/09, as amended), to verify that the flood-proofing methods for any non-residential structures will meet the flood-proofing criteria of Section 15.3.8.4; Section 15.6.7; and other applicable standards in Section 15.6;

15.3.11.2 A hydraulic openings certificate to verify that engineered hydraulic openings in foundation walls will meet the standards of Section 15.6.12.2.1;

15.3.11.3 A certified statement that bridges will meet the standards of Section 15.6.13;

15.3.11.4 A certified statement that containment walls will meet the standards of Section 15.6.14;

15.3.12 A description of the extent to which any water course will be altered or relocated as a result of the proposed development; and

15.3.13 A statement of construction plans describing in detail how each applicable development standard in section 15.6 will be met.

15.4 Application Fee and Expert's Fee

A non-refundable application fee established by the Gardiner City Council shall be paid to the City Clerk and a copy of a receipt for the same shall accompany the application.

An additional fee may be charged if the Code Enforcement Officer and/or Board of Appeals needs the assistance of a professional engineer or other expert. The expert's fee shall be paid in full by the applicant within 10 days after the city submits a bill to the applicant. Failure to pay the bill shall constitute a violation of this Ordinance and be grounds for the issuance of a stop work order. An expert shall not be hired by the city at the expense of an applicant until the applicant has either consented to such hiring in writing or been given an opportunity to be heard on the subject. An applicant who is dissatisfied with a decision to hire expert assistance may appeal that decision to the Board of Appeals.

15.5 Review Standards for Flood Hazard Development Permit Applications

The Code Enforcement Officer shall:

15.5.1 Review all applications for the flood hazard development permit to assure that proposed developments are reasonably safe from flooding and to determine that all pertinent standards of this Section are met.

15.5.2 Utilize, in the review of all flood hazard development permit applications, the following:

15.5.2.1 The base flood and floodway data contained in the "Flood Insurance Study - City of Gardiner, Maine," as described in Section 15.1;

15.5.2.2 In special flood hazard areas where base flood elevation and floodway data are not provided, the Code Enforcement Officer shall obtain, review and reasonably utilize any base flood elevation and floodway data from federal, state, or other technical sources, including information obtained pursuant to Section 15.3.8.1.2; Section 15.6.11; and Section 15.8.4, in order to administer Section 15.6 of this Ordinance; and,

15.5.2.3 When the community establishes a base flood elevation in a Zone A by methods outlined in Section 15.3.8.1.2, the community shall submit that data to the Maine Floodplain Management Program in the State Planning Office.

15.5.3 Make interpretations of the location of boundaries of special flood hazard areas shown on the maps described in 15.1 of this Section;

15.5.4 In the review of flood hazard development permit applications, determine that all necessary permits have been obtained from those federal, state, and local government agencies from which prior approval is required by federal or state law, including but not limited to Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1344;

15.5.5 Notify adjacent municipalities, the Department of Environmental Protection, and the Maine Floodplain Management Program in the State Planning Office prior to any alteration or relocation of a water course and submit copies of such notifications to the Federal Emergency Management Agency;

15.5.6 If the application satisfies the requirements of this Ordinance, approve the issuance of one of the following flood hazard development permits based on the type of development:

15.5.6.1 A two-part flood hazard development permit for elevated structures. Part I shall authorize the applicant to build a structure to and including the first horizontal floor only above the base flood level. At that time the applicant shall provide the Code Enforcement Officer with an elevation certificate completed by a professional land surveyor, registered professional engineer or architect based on the Part I permit construction, "as built", for verifying compliance with the elevation requirements of Sections 15.6.6, 15.6.7 or 15.6.8. Following review of the elevation certificate data, which shall take place within 72 hours of receipt of the application, the Code Enforcement Officer shall issue Part II of the flood hazard development permit. Part II shall authorize the applicant to complete the construction project; or

15.5.6.2 A flood hazard development permit for flood-proofing of non-residential structures that are new construction or substantially improved non-residential structures that are not being elevated but that meet the flood-proofing standards of section 15.6.7.1. The application for this permit shall include a flood-proofing certificate signed by a registered professional engineer or architect; or

15.5.6.3 A flood hazard development permit for minor development for all development that is not new construction or a substantial improvement, such as repairs, maintenance, renovations, or additions, whose value is less than 50% of the market value of the structure. Minor development also includes, but is not limited to: accessory structures as provided for in Section 15.6.10.,

mining, dredging, filling, grading, paving, excavation, drilling operations, storage of equipment or materials, deposition or extraction of materials, public or private sewage disposal systems or water supply facilities that do not involve structures; and non-structural projects such as bridges, dams, towers, fencing, pipelines, wharves and piers.

15.5.7 Maintain, as a permanent record, copies of all flood hazard development permit applications, corresponding permits issued, and data relevant thereto, including reports of the Board of Appeals on variances granted under the provisions of this Ordinance, and copies of elevation certificates, flood-proofing certificates, certificates of compliance and certifications of design standards required under the provisions of Sections 15.3, 15.6 and 15.7 of this Ordinance.

15.6 Development Standards

All developments in areas of special flood hazard shall meet the following applicable standards:

15.6.1 All Development

All development shall:

15.6.1.1 Be designed or modified and adequately anchored to prevent flotation (excluding piers and docks), collapse or lateral movement of the development resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;

15.6.1.2 Use construction materials that are resistant to flood damage;

15.6.1.3 Use construction methods and practices that will minimize flood damage; and

15.6.1.4 Use 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 flooding conditions.

15.6.2 Water Supply

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

15.6.3 Sanitary Sewage Systems

All new and replacement sanitary sewage systems shall be designed and located to minimize or eliminate infiltration of flood waters into the system and discharges from the system into flood waters.

15.6.4 Subsurface Wastewater Disposal Systems

Subsurface wastewater disposal systems shall be located and constructed to avoid impairment to them or contamination from them during floods.

15.6.5 Watercourse Carrying Capacity

All development associated with altered or relocated portions of a watercourse shall be constructed and maintained in such a manner that no reduction occurs in the flood carrying capacity of the watercourse.

15.6.6 Residential

New construction or substantial improvement of any residential structure located within:

15.6.6.1 Zone AE shall have the lowest floor (including basement) elevated to at least one foot above the base flood elevation.

15.6.6.2 Zone A shall have the lowest floor (including basement) elevated to at least one foot above the base flood elevation utilizing information obtained pursuant to Section 15.3.8.1.2; Section 15.5.2; or Section 15.8.4.

15.6.7 Non Residential

New construction or substantial improvement of any non-residential structure located within:

15.6.7.1 Zone AE shall have the lowest floor (including basement) elevated to at least one foot above the base flood elevation, or together with attendant utility and sanitary facilities shall:

15.6.7.1.1 Be flood-proofed to at least one foot above the base flood elevation so that below that elevation the structure is watertight with walls substantially impermeable to the passage of water;

15.6.7.1.2 Have structural components capable of resisting hydrostatic and hydrodynamic loads and the effects of buoyancy; and

15.6.7.1.3 Be certified by a registered professional engineer or architect that the floodproofing design and methods of construction are in accordance with accepted standards of practice for meeting the provisions of this Section. Such certification shall be provided with the application for a flood hazard development permit, as required by section 15.3.11 and shall include a record of the elevation above mean sea level to which the structure is floodproofed.

15.6.7.2 Zone A shall have the lowest floor (including basement) elevated to at least one foot above the base flood elevation utilizing information obtained pursuant to Section 15.3.8.1.2; Section 15.5.2; or section 15.8.4, or

15.6.7.2.1 Together with attendant utility and sanitary facilities meet the floodproofing standards of section 15.6.7.1.

15.6.8 Manufactured Homes

15.6.8.1 New or substantially improved manufactured homes located within Zone AE shall:

15.6.8.1.1 Be elevated such that the lowest floor (including basement) of the manufactured home is at least one foot above the base flood elevation;

15.6.8.1.2 Be on a permanent foundation, which may be poured masonry slab or foundation walls, with hydraulic openings, or may be reinforced piers or block supports, any of which support the manufactured home so that no weight is supported by its wheels and axles; and

15.6.8.1.3 Be securely anchored to an adequately anchored foundation system to resist flotation, collapse, or lateral movement. Methods of anchoring may include, but are not limited to:

15.6.8.1.3.1 Over-the-top ties anchored to the ground at the four corners of the manufactured home, plus two additional ties per side at intermediate points (manufactured homes less than 50 feet long require one additional tie per side); or

15.6.8.1.3.2 Frame ties at each corner of the home, plus five additional ties along each side at intermediate points (manufactured homes less than 50 feet long require four additional ties per side).

15.6.8.1.3.3 All components of the anchoring system described in Sections 15.6.8.1.3.1 and 15.6.8.1.3.2 shall be capable of carrying a force of 4800 pounds.

15.6.8.2 New or substantially improved manufactured homes in Zone A shall:

15.6.8.2.1 Be elevated on a permanent foundation, as described in Section 15.6.8.1.2, such that the lowest floor (including basement) of the manufactured home is at least one foot above the base flood elevation utilizing information obtained pursuant to Section 15.3.8.1.2; Section 15.5.2 or Section 15.8.4; and

15.6.8.2.2 Meet the anchoring requirements of Section 15.6.8.1.3.

15.6.9 Recreational Vehicles

15.6.9.1 Recreational Vehicles located within Zones A and AE shall either:

15.6.9.1.1 Be on the site for fewer than 180 consecutive days;

15.6.9.1.2 Be fully licensed and ready for highway use. 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

15.6.9.1.3 Be permitted in accordance with the elevation and anchoring requirements for "manufactured homes" in Section 15.6.8.1.

15.6.10 Accessory Structures

Accessory structures, as defined in this Ordinance, located within Zones AE and A shall be exempt from the elevation criteria required in Sections 15.6.6 and 15.6.7 above, if all other requirements of Section 15.6 and all the following requirements are met. Accessory structures shall:

15.6.10.1 Be 500 square feet or less and have a value less than \$3000;

15.6.10.2 Have unfinished interiors and not be used for human habitation;

15.6.10.3 Have hydraulic openings, as specified in section 15.6.12.2, in at least two different walls of the accessory structure;

15.6.10.4 Be located outside the floodway;

15.6.10.5 When possible be constructed and placed on the building site so as to offer the minimum resistance to the flow of floodwaters and be placed further from the source of flooding than is the primary structure; and

15.6.10.6 Have only ground fault interrupt electrical outlets. The electric service disconnect shall be located above the base flood elevation and when possible outside the Special Flood Hazard Area.

15.6.11 Floodways

15.6.11.1 In Zone AE riverine areas, encroachments, including fill, new construction, substantial improvement, and other development shall not be permitted within a regulatory floodway which is designated on the community's "Flood Insurance Rate Map" unless a technical evaluation certified by a registered professional engineer is provided demonstrating that such encroachments will not result in any increase in flood levels within the community during the occurrence of the base flood discharge.

15.6.11.2 In Zone AE and A riverine areas for which no regulatory floodway is designated, encroachments, including fill, new construction, substantial improvement, and other development, shall not be permitted in the floodway as determined in Section 15.6.11.3 unless a technical evaluation certified by a registered professional engineer is provided demonstrating that the cumulative effect of the proposed development, when combined with all other existing development and anticipated development:

15.6.11.2.1 Will not increase the water surface elevation of the base flood more than one foot at any point within the community; and

15.6.11.2.2 Is consistent with the technical criteria contained in Chapter 5 entitled "Hydraulic Analyses," *Flood Insurance Study - Guidelines and Specifications for Study Contractors*, (FEMA 37/ January 1995, as amended).

15.6.11.3 In Zone AE and A riverine areas for which no regulatory floodway is designated, the regulatory floodway is determined to be the channel of the river or other water course and the adjacent land areas to a distance of one-half the width of the floodplain as measured from the normal high water-mark to the upland limit of the floodplain.

15.6.12 Enclosed Areas Below the Lowest Floor

New construction or substantial improvement of any structure in Zones AE and A that meets the development standards of section 15.6, including the elevation requirements of Sections 15.6.6, 15.6.7 or 15.6.8 and is elevated on posts, columns, piers, piles, "stilts," or crawlspaces may be enclosed below the base flood elevation requirements provided all the following criteria are met or exceeded:

15.6.12.1 Enclosed areas are not "basements" as defined in this Ordinance;

15.6.12.2 Enclosed areas shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of flood water. Designs for meeting this requirement shall either:

15.6.12.2.1 Be engineered and certified by a registered professional engineer or architect; or

15.6.12.2.2 Meet or exceed the following minimum criteria:

15.6.12.2.2.1 A minimum of two openings having a total net area of not less than one square inch for every square foot of the enclosed area;

15.6.12.2.2.2 The bottom of all openings shall be below the base flood elevation and no higher than one foot above the lowest grade; and

15.6.12.2.2.3 Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the entry and exit of flood waters automatically without any external influence or control such as human intervention, including the use of electrical and other non-automatic mechanical means.

15.6.12.2.3 The enclosed area shall not be used for human habitation; and

15.6.12.2.4 The enclosed areas are usable solely for building access, parking of vehicles, or storage.

15.6.13. Bridges

New construction or substantial improvement of any bridge in Zones AE and A shall be designed such that:

15.6.13.1 When possible, the lowest horizontal member (excluding the pilings, or columns) is elevated to at least one foot above the base flood elevation; and

15.6.13.2 A registered professional engineer shall certify that:

15.6.13.2.1 The structural design and methods of construction shall meet the elevation requirements of this Subsection and the floodway standards of Section 15.6.11; and

15.6.13.2.2 The foundation and superstructure attached thereto are designed to resist flotation, collapse and lateral movement due to the effects of wind and water loads acting simultaneously on all structural components. Water loading values used shall be those associated with the base flood.

15.6.14 Containment Walls

New construction or substantial improvement of any containment wall located within Zones AE and A shall:

15.6.14.1. Have the containment wall elevated to at least one foot above the base flood elevation;

15.6.14.2 Have structural components capable of resisting hydrostatic and hydrodynamic loads and the effects of buoyancy; and

15.6.14.3 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 provisions of this Section. Such certification shall be provided with the application for a flood hazard development permit, as required by section 15.3.11.

15.6.15 Wharves, Piers and Docks

New construction or substantial improvement of wharves, piers, and docks is permitted in Zones AE and A, in and over water and seaward of the mean high tide, if the following requirements are met:

15.6.15.1 Wharves, piers, and docks shall comply with all applicable local, state, and federal regulations; and

15.6.15.2 For commercial wharves, piers, and docks, a registered professional engineer shall develop or review the structural design, specifications, and plans for the construction.

15.7 Certificate of Compliance

No land in a special flood hazard area shall be occupied or used and no structure which is constructed or substantially improved shall be occupied until a certificate of compliance is issued by the Code Enforcement Officer, subject to the following provisions:

15.7.1 For new construction or substantial improvement of any elevated structure the applicant shall submit to the Code Enforcement Officer, an elevation certificate completed by a professional land surveyor, registered professional engineer, or architect, for compliance with Sections 15.6.6, 15.6.7 or 15.6.8.

15.7.2 The applicant shall submit written notification to the Code Enforcement Officer that the development is complete and complies with the provisions of this Ordinance.

15.7.3 Within 10 working days, the Code Enforcement Officer shall:

15.7.3.1 Review the elevation certificate and the applicant's written notification; and

15.7.3.2 Upon determination that the development conforms with the provisions of this Ordinance, shall issue a certificate of compliance.

15.8 Review of Subdivision and Development Proposals

The Planning Board shall, when reviewing subdivisions and other proposed developments that require review under other federal law, state law or local ordinances or regulations and all projects on 5 or more disturbed acres, or in the case of manufactured home parks divided into two or more lots, assure that:

15.8.1 All such proposals are consistent with the need to minimize flood damage.

15.8.2 All public utilities and facilities, such as sewer, gas, electrical and water systems are located and constructed to minimize or eliminate flood damages.

15.8.3 Adequate drainage is provided so as to reduce exposure to flood hazards.

15.8.4 All proposals include base flood elevations, flood boundaries, and, in a riverine floodplain, floodway data. These determinations shall be based on engineering practices recognized by the Federal Emergency Management Agency.

15.8.5 Any proposed development plan includes a condition of plan approval requiring that structures on any lot in the development having any portion of its land within a Special Flood Hazard Area are to be constructed in accordance with section 15.6 of this Ordinance. Such requirement will be included in any deed, lease, purchase and sale agreement, or document transferring or expressing an intent to transfer any interest in real estate or structure, including but not limited to a time-share interest. The condition shall clearly articulate that the city may enforce any violation of the construction requirement and that fact shall also be included in the deed or any other document previously described. The construction requirement shall also be clearly stated on any map, plat, or plan to be signed by the Planning Board or local reviewing authority as part of the approval process.