



TOWN OF KITTERY

Office of Planning & Development

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To: Planning Board

From: Kathy Connor, Project Planner & Jason Garnham, Director of Planning and Development

Date: May 23, 2023

Re: **Floodplan FEMA Maps and Floodplan Management Amendments: Public Hearing**

Introduction:

In March of 2024, the Town of Kittery was issued Preliminary Floodplain Maps by FEMA and a Letter of Map Revision Determination. The floodplain maps consist of 17 panels, each covering a portion of Kittery. Kittery must adopt these floodplain maps and updated floodplain management regulations as part of the Town's Zoning by July 17, 2024 in order to remain in the National Flood Insurance Program.

The floodplain maps that are currently in use date to the late 1980s. Kittery was first issued Preliminary Floodplain Maps by FEMA in 2013. A portion of Kittery along coastal waters was revised based on a process that included an appeal to FEMA, with Ransom Consulting, LLC providing the engineering work, of the 2013 Preliminary Floodplain Maps and a Letter of Map Revision (LOMR) process which spanned multiple years. Both the appeal and the LOMR were related to engineering and modeling differences.

Process:

Amendments to Town zoning cannot be adopted until a public hearing is held by the Planning Board and Town Council per Kittery Town Code §16.1.7 and MRS Title 30-A, Chapter 187, §4352 A.9. The Planning Board voted to schedule a May 23 public hearing on these amendments during a workshop on April 25, 2024. Notice of this public hearing was published in the Weekly Sentinel and mailed to affected property owners as required.

After holding a public hearing, the **Planning Board should vote on whether to recommend adoption of these amendments to Town Council.** Town Council is scheduled to review these amendments during the June 10, 2024 meeting and hold a public hearing on June 24, 2024.

Suggested motion: *move to recommend adoption of amendments to Title 16-zoning and associated floodplain maps as presented by staff*

April 25 Planning Board workshop, comments and responses:

At the Planning Board workshop held on April 25th, the Board had the following questions (*followup/ responses in italics*):

- On Line 26, under C. Establishment of flood areas, there was a question about the sentence referring to the “previously cited Act”. The Act being referred to is identified previously in A. Statement of Purpose and intent, on lines 5 and lines 7-8. *See lines 5 and 7-8.*
- On line 88-89, there are three citations under subsection (8)(a)[2][b] that all state a requirement for a two-foot freeboard requirement. The Planning Board would like to cite the two foot standard and point to the citations for details. *Change made to draft amendments.*
- On line 190, the Permit for “minor development for all development that is not new construction or substantial improvement such as repairs, maintenance, renovations or additions whose value is less than 50% of the market value of the structure. The Board would like to change it to “assessed” value. *This change was not recommended by the state floodplain coordinator or Town assessor. Recognizing that assessed values are typically lower than market values, the change proposed by board members would have made it harder for property owners to obtain permits for minor development because it would have lowered the threshold for value of work which would qualify as minor development. It is recommended to lower barriers for property owners who wish to renovate their properties to make them safer and more flood-resistant.*
- On lines 573-576, the Board would like to say that “the National Flood Insurance Program and by extension, those insurers under that program, will not insure structures located entirely over water or seaward of mean high tide.” *Change made, lines 577-579.*
- On lines 639-643, it states that the Board of Appeals can hear and decide an appeal of a Planning Board decision. Kittery’s land use ordinances are all currently written such that any appeal of a Planning Board decision goes to Maine Superior Court – they are not appealable to the Board of Appeals. This floodplain process would be a departure from the norm for Kittery. The Board would prefer to have it stay the same the course as other PB appeals. *Change made, lines 648-650.*
- On lines 645-646, it states the Board of Appeals may grant a variance from the floodplain standards. The Planning Board would like to add that any variances needed would have to be sought and approved prior to any required Planning

Board action through the special exception process (known as conditional approval in the model ordinance). *Change made, lines 722-723.*

Background:

There has not been an updated adopted map since 1986. Kittery received preliminary maps from FEMA in 2013 which were appealed. If you are curious about the process details and why it took time, you will find an attached FAQ prepared by the attorney who worked on behalf of Kittery with FEMA. The short version is that FEMA issued maps in 2013 which were appealed by Ransom Engineering on behalf of Kittery and other York County coastal communities which resulted, finally, in the new maps that Kittery is preparing to adopt.

There are 17 separate maps, which collectively are called Flood Insurance Rate Maps (FIRMs), each representing a specific portion of Kittery. Each map is referred to as a panel. Four of the panels show Revised Areas identifying the areas where FEMA approved Kittery's requested changes through a process called a Letter of Map Revision (LOMR). These areas range from Whipple Road into Kittery Point including Chauncey Creek and Gerrish Island and along Route 103 to the York line.

To support the new maps, the floodplain management ordinance in §16.5.11 needed quite a few updates. Kittery's updates were completed by staff and reviewed by the State Floodplain Management Program. The State office produces a FEMA-approved model ordinance so that communities can use it as a guide to make necessary updates.

The Town has paper maps and most of the 2024 Preliminary Map GIS data has been sent to CAI, our GIS consultant, to be put on the Town's on-line GIS system for use by the public. We are working on obtaining the rest of the data. The Town has had the 2013 Preliminary Map data available on the Town website for years now as an informational tool. As with all ordinance adoptions, the floodplain management changes must first go to you, the Planning Board, for discussion, public hearing and votes and then to Town Council for the same. The timeline for the Planning Board is workshop and setting the public hearing date on April 25th, followed by the public hearing itself and a vote on May 23. **The maps must be adopted by July 17th in order for the Town to remain in the National Flood Insurance Program (NFIP).**

Other notes:

Outreach to property owners and the public was conducted in the following ways:

1. The Town of Kittery placed a public notice announcing the Letter of Map Revision changes to Kittery's floodplain maps on March 1, 2024 in the Weekly Sentinel.
2. FEMA placed public notices announcing all the new floodplain maps in the Portsmouth Herald on March 14th and March 21st of this year.

3. Those property owners affected and notified in 2013 of being in the special flood hazard zones will be notified again of the Town's intention to adopt these FIRMs by mail. *All owners of property located in flood zones AE,*
4. The Town's website will be updated with information on the new maps and ordinance changes. *Updates made, current.*

Features of the new FIRMs include:

- The area of revision (essentially the area that was under appeal and was changed via the LOMR) is delineated.
- There is a new area depicted called the Limit of Moderate Wave Action (LiMWA) which is the area where waves can reach between 1.5- and 3-feet during storm events. While not specifically regulated, it is there for cautionary reasons.
- There are several special hazard flood areas, Zones, A, AE and VE.
- There are many more base flood elevations shown.

Changes to the Floodplain Management Ordinance include:

- More clarity on permitting and submission requirements.
- More performance standards for each type of structure.
- More structures are regulated (for example RVs, bridges, containment walls).
- More stringent requirements for structures in the special flood hazard areas.

Not included in the Floodplain Management Ordinance:

- Stricter standards than FEMA's (including higher freeboard – FEMA and Kittery both require 1 foot) are not proposed at this time.

Chapter 16.3.2 Definitions related to Floodplain Management update DRAFT

1 ACCESSORY STRUCTURE

2 A structure that is incidental and subordinate to and serves a principal building or use
3 while serving that principal building or use on the same lot.

4 AGRICULTURAL STRUCTURE

5 Structures that are used exclusively for agricultural purposes or uses in connection with
6 the production, harvesting, storage, raising, or drying of agricultural commodities and
7 livestock. Structures that house tools or equipment used in connection with these purposes
8 or uses are also considered to have agricultural purposes or uses.

9 **FLOOD, AREA OF SPECIAL FLOOD HAZARD , OR SPECIAL FLOOD HAZARD** 10 **AREA**

11 The land in the floodplain having a one percent or greater chance of flooding in any given year, as
12 specifically identified in the Flood Insurance Study cited in §16.5.11.C. ~~Establishment of areas~~

13 **BASEMENT**

14 An area below the first floor having a floor-to-ceiling height of six feet or more and 50% of its
15 volume below the existing ground. When used in the context of §16.5.11 Floodplain
16 Management, any area of a building that includes a floor that is subgrade (below ground
17 level) on all sides.

18 **CODE ENFORCEMENT OFFICER (CEO)**

19 Person(s) certified under Title 30-A MRSA, Section 4451 (including exceptions in Section
20 4451, paragraph 1) and employed and The person duly authorized by the Town to carry
21 out the duties, including enforcement of all applicable comprehensive planning and land
22 use laws, as prescribed herein and in the Town Administrative Code.

23 COASTAL AE ZONE

24 The portion of the Coastal High Hazard Area with wave heights between 1.5 feet and 3.0
25 feet and bounded by a line labeled the “Limit of Moderate Wave Action” (LiMWA) on a
26 Flood Insurance Rate Map (FIRM). VE Zone floodplain construction standards are
27 applied to development, new construction, and substantial improvements in the Coastal AE
28 Zone.

29 COASTAL HIGH HAZARD AREA

30 An area of special flood hazard extending from offshore to the inland limit of a primary
31 frontal dune along an open coast and any other area subject to high velocity wave action
32 from storms or seismic sources. Coastal High Hazard Areas are designated as Zone VE and
33 Zone AE bounded by a line labeled “Limit of Moderate Wave Action” (LiMWA) on a
34 Flood Insurance Rate Map (FIRM).

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CONTAINMENT WALL

A wall surrounding all sides of an above ground tank to contain any spills or leaks.

DEVELOPMENT

- A. A **manmade** change in land use involving alteration of the land, water or vegetation **including but not limited to buildings, structures, mining, dredging, filling, grading, paving excavation, drilling operations, storage of equipment or materials, and the storage, deposition or extraction of materials;** or
- B. The addition or alteration of structures or other **types of** construction **such as but not limited to roads, stormwater management systems, culverts, utilities, and communications systems. not naturally occurring.**

ELEVATED BUILDING

- A. A non-basement building:
 - (1) Built, in the case of a building in Zones **A1—30**, A or AE, **A99, AO or AH**, **to have so that** the top of the elevated floor, **or in the case of a building in Zones Coastal AE or VE, to have the bottom of the lowest horizontal structural member of the elevated floor,** elevated above the ground level by means of pilings, columns, post, or piers ~~or~~ **stilts;** and
 - (2) Adequately anchored so as not to impair the structural integrity of the building during a flood of up to one foot above the magnitude of the base flood.
- B. **In the case of Zones A or AE, this term “Elevated Building” also includes a building elevated by means of fill or solid foundation perimeter walls with hydraulic openings sufficient to facilitate the unimpeded movement of flood waters, as required in §16.5.11.H(14).**
- C. **In the case of Zones Coastal AE and VE , the term “Elevated Building” also includes a building otherwise meeting the definition of elevated building, even though the lower area is enclosed by means of breakaway walls, if the breakaway walls meet the standards of §16.5.11.H(18)(b)[2][c].**

ELEVATION CERTIFICATE

An official form (FEMA Form (FEMA Form 81-31, 05/90, FF-206-FY-22-152, as amended) that ~~A.~~ is used to verify compliance with the floodplain management regulations of the National Flood Insurance Program.
B. Is required for purchasing flood insurance.

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EXISTING MANUFACTURED HOME PARK OR SUBDIVISION (FOR FLOODPLAIN)

For the purposes of §16.5.11 Floodplain Management, a manufactured home park or subdivision that was recorded in the deed registry prior to the adoption date of the community’s first floodplain management regulations.

FLOOD or FLOODING

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

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

B. The collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents ~~or~~ of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as a flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding as defined in Subsection A(1) of this definition.

FUNCTIONALLY DEPENDENT USE (IN FLOODPLAIN)

For the purposes of §16.5.11 Floodplain Management, 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.

LIMIT OF MODERATE WAVE ACTION (LiMWA)

The landward limit of the 1.5 foot breaking wave within a Coastal AE Zone. These areas are bounded by a line labeled “Limit of Moderate Wave Action” (LiMWA) on a Flood Insurance Rate Map (FIRM). The LiMWA line delineates that portion of the Special Flood Hazard Area (SFHA) landward of a VE zone in which the principal sources of flooding are astronomical high tides, storm surges, or tsunamis, not riverine sources. These areas may be subject to wave effects, velocity flows, erosion, scour, or combinations of these forces. The floodplain development and construction standards for VE Zones will be applied in the Coastal AE Zone.

110 **LOCALLY ESTABLISHED DATUM**

111 **For the purposes of §16.5.11 Floodplain Management, an elevation established for a specific**
112 **site to which all other elevations at the site are referenced. This elevation is generally not**
113 **referenced to the National Geodetic Vertical Datum (NGVD), North American Vertical**
114 **Datum (NAVD), or any other established datum and is used in areas where Mean Sea Level**
115 **data is too far from a specific site to be practically used.**

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117 **MANUFACTURED HOME (FOR FLOODPLAIN)**

118 **For floodplain management purposes, a structure, transportable in one or more sections,**
119 **which is built on a permanent chassis and is designed for use with or without a permanent**
120 **foundation when connected to the required utilities. In addition, the term manufactured**
121 **home also includes park trailers, travel trailers, and other similar vehicles placed on a site**
122 **for greater than 180 consecutive days.**

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124 **MANUFACTURED HOME PARK OR SUBDIVISION (FOR FLOODPLAIN)**

125 **For floodplain management purposes, a parcel (or contiguous parcels) of land divided into**
126 **two or more manufactured home lots for rent or sale.**

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128 **MEAN SEA LEVEL**

129 For purposes of the National Flood Insurance Program, the National Geodetic Vertical Datum
130 (NGVD) of 1929, **North American Vertical Datum (NAVD)** or other datum, to which base
131 flood elevations shown on a community's Flood Insurance Rate Map are referenced.

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133 **MINOR DEVELOPMENT (FOR FLOODPLAIN)**

134 **For the purposes of §16.5.11 Floodplain Management, all development that is not new**
135 **construction or a substantial improvement, whose value is less than 50% of the market**
136 **value of the structure. It also includes but is not limited to: accessory structures as**
137 **provided for in §16.5.11.H(12), mining, dredging, filling, grading, paving, excavation,**
138 **drilling operations, storage of equipment or materials, deposition or extraction of**
139 **materials, public or private sewage disposal systems or water supply facilities that do not**
140 **involve structures; and non-structural projects such as bridges, dams, towers, fencing,**
141 **pipelines, wharves, and piers.**

142 **NATIONAL GEODETIC VERTICAL DATUM (NGVD)**

143 **The national vertical datum, a standard established in 1929, used by the National Flood**
144 **Insurance Program (NFIP). NGVD is based upon mean sea level in 1929 and has been**
145 **called “1929 Mean Sea Level” (MSL).**

146 **NORTH AMERICAN VERTICAL DATUM (NAVD)**

147 **The national datum whose standard was established in 1988, which is the new vertical**
148 **datum used by the National Flood Insurance Program (NFIP) for all new Flood Insurance**
149 **Rate Maps. NAVD is based upon the vertical data used by other North American countries**
150 **such as Canada and Mexico and was established to replace NGVD because of constant**
151 **movement of the earth’s crust, glacial rebound and subsidence, and the increasing use of**
152 **satellite technology.**

153 **RECREATIONAL VEHICLE (FOR FLOODPLAIN)**

154 **For the purposes of §16.5.11 Floodplain Management, a vehicle that is:**

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- 157 **A. Built on a single chassis,**
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- 159 **B. 400 square feet or less when measured at the largest horizontal projection, not**
160 **including slide-outs,**
- 161
- 162 **C. Designed to be self-propelled or permanently towable by a motor vehicle, and**
163
- 164 **D. Designed primarily for not for use as a permanent dwelling but as temporary**
165 **living quarters for recreational, camping, travel, or seasonal use.**
166

167 **SPECIAL EXCEPTION USE (FOR FLOODPLAIN)**

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169 **A use that, because of its potential impact on surrounding areas and structures, is**
170 **permitted only upon review and approval by the Planning Board pursuant to §16.5.11.I(2).**
171

172 **STRUCTURE (FOR FLOODPLAIN)**

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174 **For floodplain management purposes, a walled and roofed building. A gas or liquid storage**
175 **tank that is principally above ground is also a structure.**

176

177 **SUBSTANTIAL IMPROVEMENT**

178 Any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of
179 which equals or exceeds 50% of the market value of the structure before the start of construction
180 of the improvement. This term includes structures which have incurred substantial damage,
181 regardless of the actual repair work performed. The term does not, however, include either:

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

Chapter 16.3.2 Definitions related to Floodplain Management update DRAFT

- 186 B. Any alteration of an historic structure, provided that the alteration will not preclude the
187 structure's continued designation as an historic structure, and a variance is obtained from
188 the Board of Appeals.

189 REGULATORY FLOODWAY

- 190 A. The channel of a river or other water course and the adjacent land areas that must be reserved
191 in order to discharge the base flood without cumulatively increasing the water surface
192 elevation more than ~~one-foot~~ a designated height, and,

- 193 B. In riverine areas When not designated on the community's Flood Insurance Rate Map,
194 it is considered to be the channel of a river or other water course and the adjacent land areas
195 to a distance of one-half the width of the floodplain, as measured from the normal high water
196 mark to the upland limit of the floodplain.

197 VIOLATION (FOR FLOODPLAIN)

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- 199 The failure of a structure or development to comply with the Town's floodplain
200 management regulations.

Chapter 16.5.11, Floodplain Management Amendments – DRAFT – May 23, 2024

Key: Brown-orange underline and strikethrough indicates State/FEMA-required amendments

Blue highlight indicates major subsections for easier reference.

1 **16.5.11 Floodplain Management**

2 **A. Statement of purpose and intent.**

3 (1) Certain areas of the Town are subject to periodic flooding, causing serious damages to
4 properties within these areas. Relief is available in the form of federally subsidized flood
5 insurance as authorized by the National Flood Insurance Act of 1968.

6 (2) Therefore, the Town has chosen to become a participating community in the National Flood
7 Insurance Program and agrees to comply with the requirements of the National Flood
8 Insurance Act of 1968 (P.L. 90-488, as amended) as delineated in this **article Floodplain**
9 **Management Ordinance.**

10 (3) It is the intent of the Town to require the recognition and evaluation of flood hazards in all
11 official actions relating to land use in the floodplain areas having special flood hazards. This
12 body has the legal authority to adopt land use and control measures to reduce future flood
13 losses pursuant to 30-A M.R.S §§3001-3007, 4352 and 4401-4407 . **and Title 38 MRSA**
14 **Section 440.**

15 (4) **The Town of Kittery has the legal authority to adopt land use and control measures to**
16 **reduce future flood losses pursuant to Title 30-A MRSA, Sections 3001-3007, 4352,**
17 **4401-4407, and Title 38 MRSA, Section 440.**

18 **B. Definitions.**

19 Unless specifically defined in §16.3, words and phrases used in this **article ordinance** have
20 the same meanings as they have in common law to give this **article ordinance** its most
21 reasonable application. **The word "may" is permissive; "must" and "will" are**
22 **mandatory and not discretionary.**

23 **C. Establishment of flood areas.**

24 (1) ~~**The Town elects to comply with the requirements of the National Flood Insurance Act**~~
25 ~~**of 1968 (P.L. 90-488, as amended).**~~ The National Flood Insurance Program, established in
26 the ~~**aforesaid previously cited**~~ Act, provides that **those** areas of the Town having a special
27 flood hazard be identified by the Federal Emergency Management Agency and that
28 floodplain management measures be applied in such flood hazard areas. This **article**
29 **ordinance** establishes a flood hazard development permit system and review procedure for
30 development activities in the designated flood hazard areas of the Town.

31 (2) The areas of special flood hazard, Zones A, ~~**A1-30**~~, AE, ~~**AO, AH, V1-30**~~ and/or VE **for the**
32 **Town of Kittery, York County Maine,** identified by the Federal Emergency Management
33 Agency in a report entitled "Flood Insurance Study — ~~**Town of Kittery, York County,**~~
34 ~~**Maine, York County,**~~" dated ~~**January 5, 1984**~~ **July 17, 2024** , with accompanying Flood
35 Insurance Rate Map dated ~~**July 3, 1986**~~ **July 17, 2024,** **and any subsequent amendments**
36 **thereto (including, without limitation, a Letter of Map Revision No. 24-01-0142P, dated**

37 July 18, 2024), are adopted by reference and declared to be a part of this ~~article~~ ordinance.

38 **D. Permit required.**

39 (1) The Code Enforcement Officer will be designated as the local Floodplain
40 Administrator. The Floodplain Administrator will have the authority to implement the
41 commitment made to administer and enforce the requirements for participation in the
42 National Flood Insurance Program.

43 (2) The Planning Board is the permitting authority for all special exception flood hazard
44 applications including those involving subdivisions and will act on such applications as
45 required in §16.5.11.I and K. The Code Enforcement Officer is the permitting
46 authority for other types of allowed development such as, but not limited to, accessory
47 structures and for minor development applications for existing residential and non-
48 residential structures.

49 (3) Before any construction or other development (as defined in §16.3), including the placement
50 of manufactured homes, begins within any areas of special flood hazard established in
51 §16.5.11.C, a Flood Hazard Development Permit ~~is to~~ must be obtained from the Code
52 Enforcement Officer. ~~except~~ When the Planning Board must grant special exception
53 approvals as provided by §16.5.11.I of this ordinance, the Flood Hazard Development
54 Permit must be submitted as part of the application. This permit is in addition to any
55 other permits which may be required pursuant to the ~~title~~ ordinances and codes of the
56 Town of Kittery, Maine.

57 **E. The application for a flood hazard development permit ~~is to~~ must be submitted to the Code**
58 **Enforcement Officer and include:**

- 59 (1) The name, address, and phone number of the applicant, owner and contractor.
- 60 (2) An address and a map indicating the location of the construction site.
- 61 (3) A site plan showing the location of existing and/or proposed structures development
62 including but not limited to structures, sewage disposal facilities, water supply
63 facilities, areas to be cut and filled, and lot dimensions. Such a plan must also show
64 where the proposed development is located in relation to the flood hazard area
65 boundaries.
- 66 (4) A statement of the intended use of the structure and/or development.
- 67 (5) A statement of the cost of the development, including all materials and labor.
- 68 (6) A statement as to the type of sewage system proposed.
- 69 (7) Specification of dimensions of the proposed structure and/or development.

70 [Note: Subsections 8-13 below apply only to new construction or substantial improvements,

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Blue highlight indicates major subsections for easier reference.

71 as defined by Title 16.]

72 (8) The elevation in relation to the National Geodetic Vertical (NGVD), North American
73 Vertical Datum (NAVD) or to a locally established datum in Zone A only, of the:

74 (a). Base flood for structures located in special flood hazard areas, at the proposed
75 site of all new or substantially improved structures, which is determined:

76 [1] In Zones ~~A1—30~~, AE, ~~AO, AH, V1—30~~, and VE, from data contained in
77 the "Flood Insurance Study — Town of Kittery York County, Maine," as
78 described in §16.5.~~110~~.C or

79 [2] In Zone A:

80 [a] From any base flood elevation data from federal, state, or other
81 technical sources (such as FEMA’s Quick-2 model, FEMA
82 265), including information obtained pursuant to §16.5.11.H(13) and
83 §16.5.11.K(1)(d) or from of the ground at the intersection of the
84 floodplain boundary and a line perpendicular to the shoreline which
85 passes along the ground through the site of the proposed building.

86 [b] In the absence of all data described in §16.5.11.E(8)(a)[2][a],
87 information to demonstrate that the structure shall, at minimum, meet
88 the two-foot elevation requirements above the highest adjacent grade to
89 the structure. that the structure shall meet the elevation requirements
90 in §16.5.11.H.(8)(b)[2], §16.5.11.H(9)(b)[2] or §16.5.11.H(10)(b)[2].

91 (b). Highest and lowest grades at the site adjacent to the walls of the proposed building.

92 (c). Lowest floor, including basement, and whether or not such structures contain a
93 basement.

94 (d). Lowest machinery and equipment servicing the building; and

95 (e). Level, in the case of nonresidential structures only, to which the structure will be
96 floodproofed.

97 (9) A description of an base flood elevation reference point established on the site of ~~all new~~
98 ~~or substantially improved structures~~ developments for which elevation standards
99 apply as required in Section H of §16.5.11.

100 (10) A written certification by:

101 (a). a professional land surveyor that the grade elevations shown on the application
102 are accurate; and

103 (b). a professional land surveyor, registered professional engineer or architect;

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104 verifying that the base flood elevations shown on the application are accurate.

105 (11) **The following** ~~C~~certifications **as required in §16.5.11.H** by a registered professional
106 engineer or architect: ~~that floodproofing methods for any:~~

107 (a). **A Floodproofing Certificate (FEMA Form FF-206-FY-22-153, as amended**
108 **from time to time) to verify that the floodproofing methods for any**
109 ~~N~~nonresidential structures will meet the floodproofing criteria of §16.5.11.H.(9)
110 and other applicable standards in §16.5.11.H. and

111 (b). **A V-Zone Certificate to verify that C**construction in coastal high-hazard areas,
112 Zones ~~V1—30 Coastal AE~~ and VE will meet the **floodproofing** criteria of
113 **Subsection 11 of §16.5.11.H.(18)** and other applicable standards in §16.5.11.H.

115 (c). **A Hydraulic Openings Certificate to verify that engineered hydraulic openings**
116 **in foundation walls will meet the standards of §16.5.11.H(14)(b)[1].**

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118 (d). **A certified statement that bridges will meet the standards of §16.5.11.H(15).**

119
120 (e). **A certified statement that c**Containment walls will meet the standards of
121 **§16.5.11.H(16).**

122
123 (12) A description of the extent to which any watercourse will be altered or relocated as a
124 result of the proposed development.

125 (13) A statement of construction plans describing in detail how each applicable development
126 standard in §16.5.11.H will be met.

127 **F. Application fee and expert's fee.**

128 (1) A nonrefundable application fee as set out in Appendix A ~~is to~~ **shall** be paid to the ~~Town~~
129 **Clerk Code Enforcement Officer**, and a copy of a receipt for the same must accompany
130 the application.

131 (2) An additional fee may be charged if the Code Enforcement Officer, **Planning Board**
132 and/or Board of Appeals needs the assistance of a professional engineer or other expert.
133 The expert's fee must be paid in full by the applicant within 10 days after the Town
134 submits a bill to the applicant. Failure to pay the bill constitutes a violation of this ~~title~~
135 **ordinance** and is grounds for the issuance of a stop-work order. An expert may not be
136 hired by the municipality at the expense of an applicant until the applicant has either
137 consented to such hiring in writing or been given an opportunity to be heard on the
138 subject. An applicant who is dissatisfied with a decision of the Code Enforcement Officer
139 may appeal that decision to the Board of Appeals.

140 **G. Review standards of for flood hazard development permit applications.** The Code

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- 141 Enforcement Officer and the Planning Board when applicable must:
- 142 (1) Review all applications for a flood hazard development permit to assure that proposed
143 building sites developments are reasonably safe from flooding and to determine that all
144 pertinent requirements of §16.5.11.H, Development Standards, have or will be met.
- 145 (2) Utilize, in the review of all flood hazard development permit applications:
- 146 (a) The base flood and floodway data contained in the "Flood Insurance Study - ~~Town~~
147 of Kittery-York County, Maine," as described in §16.5.11.C.
- 148 (b) In special flood hazard areas where base flood elevation and floodway data are not
149 provided, the Code Enforcement Officer ~~is to~~ must obtain, review and reasonably
150 utilize any base flood elevation and floodway data from federal, state, or other
151 sources, including information obtained pursuant to §16.5.11.E(8)(a)[2],
152 §16.5.11.H(13) and §16.5.11.K(1)(d), in order to administer §16.5.11.H of this
153 article.
- 154 (c) When the Town establishes a base flood elevation in a Zone A by methods
155 outlined in §16.5.11.E.(8).(a).[2], the community must submit that data to the
156 Maine Floodplain Management Program.
- 157 (3) Make interpretations of the location of boundaries of special flood hazard areas shown on
158 the maps described in §16.5.11.C.
- 159 (4) In the review of flood hazard development permit applications, determine that all
160 necessary permits have been obtained from those federal, state and local government
161 agencies from which prior approval is required by federal or state law, including, but not
162 limited to, Section 404 of the Federal Water Pollution Control Act Amendments of 1972,
163 33 U.S.C. ~~§1334~~.
- 164 (5) Notify adjacent municipalities, the Department of Environmental Protection, and the
165 Maine ~~Office of Community Development~~ Floodplain Management Program prior to
166 any alteration or relocation of a watercourse and submit copies of such notifications to
167 the Federal Emergency Management Agency.
- 168 (6) If the application satisfies the requirements of this ordinance, approve the issuance
169 of one of the following flood hazard development permits, based on the type of
170 development:
- 171 (a). Issue a two-part Flood Hazard Development Permit for elevated structures. Part I ~~is~~
172 ~~to~~ authorizes the applicant to build a structure to and including the first horizontal
173 floor only, above the base flood level. At that time the applicant must provide the
174 Code Enforcement Officer with an "under construction" Elevation Certificate
175 completed by a professional land surveyor, registered professional engineer or
176 architect based on Part I permit construction, for verifying compliance with

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177 the elevation requirements of Subsections 8, 9, 10 and 18 of §16.5.11.H. an
178 application for Part II of the flood hazard permit. Following review of the
179 application Elevation Certificate data, which ~~review~~ must take place within three
180 working days of receipt of the application, the Code Enforcement Officer ~~is to~~ will
181 issue Part II of the Flood Hazard Development Permit. Part II authorizes the
182 applicant to complete the construction project; or

183 (b). Issue a Flood Hazard Development Permit for floodproofing of non-residential
184 structures that are new construction or substantially improved non-residential
185 structures that are not being elevated but meet the floodproofing standards of
186 §16.5.11.H(9). The application for this permit must include a Floodproofing
187 Certificate signed by a registered professional engineer or architect or:

188 (c). Issue a Flood Hazard Development Permit for minor development for all
189 development that is not new construction or substantial improvement such as
190 repairs, maintenance, renovations or additions whose value is less than 50% of
191 the market value of the structure. Minor development also includes but is not
192 limited to: accessory structures as provided for in §16.5.11.H(12), mining,
193 dredging, filling, grading, paving, excavation, drilling operations, storage of
194 equipment or materials, deposition or extraction of materials, public or private
195 sewage disposal systems or water supply facilities that do not involve
196 structures; and non-structural projects such as bridges, dams, towers, fencing,
197 pipelines, wharves and piers.

198 (d). For development that requires review and approval as a special exception, as
199 provided for in this ordinance, the Flood Hazard Development Permit
200 Application must be acted upon by the Planning Board as required in
201 §16.5.11.I and described in §16.5.11.D.

202 (7) Maintain, as a permanent record, copies of all Flood Hazard Development Permit
203 applications, corresponding permits issued and data relevant thereto, including reports
204 of the Board of Appeals on variances granted under the provisions of §16.5.11.L and
205 this ordinance; and copies of Elevation Certificates, Floodproofing Certificates,
206 Certificates of Compliance and certifications of design standards required under the
207 provisions of §16.5.11.E, §16.5.11.H and §16.5.11.J.

208 H. **Development standards.**

209 All development in areas of special flood hazard ~~are to~~ must meet the following applicable
210 standards:

212 (1) ~~New construction or substantial improvement of any structure~~ All development
213 must:

214 (a). Be designed or modified and adequately anchored to prevent flotation (excluding
215 piers and docks), collapse or lateral movement of the structure development

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- 216 resulting from hydrodynamic and hydrostatic loads, including the effects of
217 buoyancy;
- 218 (b). Use construction materials that are resistant to flood damage;
- 219 (c). Use construction methods and practices that will minimize flood damage; and
- 220 (d). Use electrical, heating, ventilation, plumbing, and air-conditioning equipment, and
221 other service facilities, that are designed and/or located so as to prevent water from
222 entering or accumulating within the components during flooding conditions.
- 223 (2) All new and replacement water supply systems ~~are to~~ **must** be designed to minimize or
224 eliminate infiltration of floodwaters into the systems.
- 225 (3) All new and replacement sanitary sewage systems ~~are to~~ **must** be designed and located to
226 minimize or eliminate infiltration of floodwaters into the system and discharges from the
227 system into floodwaters.
- 228 (4) On-site waste disposal systems ~~are to~~ **must** be located and constructed to avoid
229 impairment to them or contamination from them during floods.
- 230 (5) All development **associated with altered or relocated portions of a watercourse is to**
231 **must** be constructed and maintained in such a manner that no reduction occurs in the
232 flood-carrying capacity of any watercourse.
- 233 (6) New construction or substantial improvement of any structure (including manufactured
234 homes) located within:
- 235 (a). **Zones A and AE must have the bottom of all electrical, heating, plumbing,**
236 **ventilation and air conditioning equipment, permanent fixtures and**
237 **components, HVAC ductwork and duct systems, and any other utility service**
238 **equipment, facilities, machinery, or connections servicing a structure, elevated**
239 **to at least one foot above the base flood elevation.**
- 240 (b). **Zone VE must meet the requirements of §16.5.11.H.(18)[4].**
- 241 (7) **Certain development projects, including but not limited to, retaining walls, sea**
242 **walls, levees, berms, and rip rap, can cause physical changes that affect flooding**
243 **conditions.**
- 244 (a). **All development projects in Zones AE and VE that cause physical changes to**
245 **the natural landscape must be reviewed by a professional engineer t(o**
246 **determine whether or not the project changes the base flood elevation, zone,**
247 **and/or the flood hazard boundary line.**
- 248 [1] **If the professional engineer determines, through the use of engineering**
249 **judgement, that the project would not necessitate a Letter of Map Revision**

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- 250 (LOMR), a certified statement must be provided.
- 251 [2] If the professional engineer determines that the project may cause a change, a
252 hydrologic and hydraulic analysis that meets current FEMA standards must
253 be performed.
- 254 (b). If the hydrologic and hydraulic analysis performed indicates a change to the
255 base flood elevation, zone, and/or the flood hazard boundary line, the applicant
256 may submit a Conditional Letter of Map Revision (C-LOMR) request to the
257 Federal Emergency Management Agency for assurance that the as-built
258 project will result in a change to the Flood Insurance Rate Map. Once the
259 development is completed, a request for a Letter of Map Revision (LOMR)
260 must be initiated.
- 261 (c). If the hydrologic and hydraulic analysis performed shows a change to the base
262 flood elevation, zone, and/or the flood hazard boundary line, as soon as
263 practicable, but no later than 6 months after the completion of the project, the
264 applicant must submit the technical data to FEMA in the form of a Letter of
265 Map Revision (LOMR) request.
- 266 (8) New construction or substantial improvement of any residential structure located within:
- 267 (a). Zone AE must have the lowest floor (including basement) elevated to at least
268 one foot above the base flood elevation.
- 269 (b). Zone A must have the lowest floor (including basement) elevated:
- 270 [1] To at least one foot above the base flood elevation utilizing information
271 obtained pursuant to §16.5.11.E(8)(a)[2][a], §16.5.11.G(2) or §16.5.11.K(1)(d),
272 or
- 273 [2] In the absence of all data described above in 16.5.11.H(8)(b)[1], to at least two
274 feet above the highest adjacent grade to the structure.
- 275 (c). Zones VE and Coastal AE (as defined by Title 16) must meet the requirements
276 of 16.5.11.H(18).
- 277 ~~(a) Zones A1 — 30, AE and AH is to have the lowest floor (including basement)~~
278 ~~elevated to at least one foot above the base flood elevation.~~
- 279 ~~(b) Zones AO and AH is to have adequate drainage paths around structures on~~
280 ~~slopes, to guide floodwater away from the proposed structures.~~
- 281 ~~(c) Zone AO is to have the lowest floor (including basement) elevated above the~~
282 ~~highest adjacent grade:~~
- 283 [1] At least one foot higher than the depth specified in feet on the community's

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- 284 ~~**Flood Insurance Rate Map; or**~~
- 285 ~~**[2] At least three feet if no depth number is specified.**~~
- 286 ~~**(d) Zone A is to have the lowest floor (including basement) elevated to at least one**~~
- 287 ~~**foot above the base flood elevation utilizing information obtained pursuant to**~~
- 288 ~~**§16.5.11.E(8)(a)[2], 16.5.11.G(4) or 16.5.11.I.(4).**~~
- 289 ~~**(e) Zones V1—30 and VE is to meet the requirements of Subsection 16 H(11).**~~
- 290 (9) New construction or substantial improvement of any nonresidential structure located
- 291 within:
- 292 (a). Zones ~~**A1—30**~~, AE ~~**and AH is to**~~ **must** have the lowest floor (including basement)
- 293 elevated to at least one foot above the base flood elevation or, together with
- 294 attendant utility and sanitary facilities, must:
- 295 [1] Be floodproofed to at least one foot above the base flood level so that below that
- 296 elevation the structure is watertight with walls substantially impermeable to
- 297 passage of water;
- 298 [2] Have structural components capable of resisting hydrostatic and hydrodynamic
- 299 loads and the effects of buoyancy; and
- 300 [3] Be certified by a registered professional engineer or architect that the
- 301 **floodproofing** design and methods of construction are in accordance with accepted
- 302 standards of practice for meeting the provisions of this section. Such certification
- 303 must be provided with the application for a flood hazard development permit, as
- 304 required by **§16.5.11.E(11)** and **must** include a record of the elevation above mean
- 305 sea level **to which the structure is floodproofed. of the lowest floor, including**
- 306 **basement.**
- 307 ~~**(b) Zones AO and AH is to have adequate drainage paths around structures on slopes,**~~
- 308 ~~**to guide floodwater away from the proposed structures.**~~
- 309 ~~**(c) Zone AO is to have the lowest floor (including basement) elevated above the highest**~~
- 310 ~~**adjacent grade:**~~
- 311 ~~**[1] At least one foot higher than the depth specified in feet on the community's**~~
- 312 ~~**Flood Insurance Rate Map; or**~~
- 313 ~~**[2] At least three feet if no depth number is specified; or**~~
- 314 ~~**[3] Together with attendant utility and sanitary facilities, be floodproofed to meet**~~
- 315 ~~**the elevation requirements of this section and floodproofing standards of**~~
- 316 ~~**Subsection 7(a) of this section H.**~~

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- 317 (b). Zone A ~~is to~~ must have the lowest floor (including basement) elevated to :
- 318 [1] At least one foot above the base flood elevation utilizing information obtained
319 pursuant to §16.5.11.E(8)(a)[2][a], §16.5.11.G(2) or §16.5.11.K(1)(d), or
- 320 [2] In the absence of all data described in §16.5.11.H(9)(b)[1] above, to at least
321 two feet above the highest adjacent grade to the structure; or
- 322 [3] Together with attendant utility and sanitary facilities, be floodproofed to one
323 foot above the base flood elevation established in §16.5.11.H(9)(b)[1] or [2]
324 and meet the floodproofing standards of §16.5.11.H(9)(a)[1], [2], and [3].
- 325 (c). Zones ~~V1—30 and~~ VE and Coastal AE (as defined by Title 16) is to must meet
326 the requirements of ~~subsection H(11) of this section~~ §16.5.11.H(18).
- 327 (10) New or substantially improved manufactured homes located within:
- 328 (a). Zones ~~A1—30, AE or AH~~ must:
- 329 [1] Be elevated ~~on a permanent foundation~~ such that the lowest floor is at least one
330 foot above the base flood elevation; and
- 331 [2] Be on a permanent foundation which may be poured masonry slab or
332 foundation walls, with hydraulic openings, or may be reinforced pier or block
333 supports, any of which support the manufactured home so that no weight is
334 supported by its wheels and axles; and
- 335 [3] Be securely anchored to an adequately anchored foundation system to resist
336 flotation, collapse, or lateral movement. Methods of anchoring may include, but are
337 not limited to:
- 338 [a] Over-the-top ties anchored to the ground at the four corners of the
339 manufactured home, plus two additional ties per side at intermediate points
340 (manufactured homes less than 50 feet long require one additional tie per side);
341 or
- 342 [b] By frame ties at each corner of the home, plus five additional ties along each
343 side at intermediate points (manufactured homes less than 50 feet long require
344 four additional ties per side).
- 345 [c] All components of the anchoring system described in §16.5.11.H(10)(a)[3][a]
346 and [b] of this section must be capable of carrying a force of 4,800 pounds.
- 347 (b) ~~Zones AO and AH are to shall have adequate drainage paths around structures~~
348 ~~on slopes, to guide floodwater away from the proposed structures.~~
- 349 (c) ~~Zone AO are to have the lowest floor (including basement) elevated above the~~

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- 350 **highest adjacent grade:**
- 351 ~~[1] At least one foot higher than the depth specified in feet on the community's~~
- 352 ~~Flood Insurance Rate Map; or~~
- 353 ~~[2] At least three feet if no depth number is specified; and~~
- 354 ~~[3] Meet the requirements of Subsection 8.(a).[1] of this section.~~
- 355 (b) Zone A ~~are to~~ **must:**
- 356 [1] Be elevated on a permanent foundation as described in 16.5.11.H(10)(a)[2] such
- 357 that the lowest floor (including basement) is at least one foot above the base flood
- 358 elevation utilizing information obtained pursuant to ~~have the lowest floor~~
- 359 ~~elevated to at least one foot above the base flood elevation utilizing~~
- 360 ~~information obtained pursuant to §16.5.11.E(8)(a)[2][a], §16.5.11.G(2) or~~
- 361 ~~§16.5.11.K(1)(d), or~~
- 362 [2] In the absence of all data described in 16.5.11.H(10)(b)[1] above, to at least
- 363 two feet above the highest adjacent grade to the structure and
- 364 [3] Meet the anchoring requirements of §16.5.11.H(10)(a)[3].
- 365 (c). Zones ~~V1—30 and~~ VE and Coastal AE ~~are to~~ **must** meet the requirements of
- 366 16.5.11.H(18). ~~Subsection 16 of this section.~~
- 367 (11) Recreational Vehicles located within:
- 368 (a). Zones A or AE must either:
- 369 [1] Be on the site for fewer than 180 consecutive days and,
- 370 [2] Be fully licensed and ready for highway use. A recreational vehicle is ready for
- 371 highway use if it is on its wheels or jacking system, is attached to the site only by
- 372 quick disconnect type utilities and security devices, and has no permanently
- 373 attached additions or
- 374 [3] Be permitted in accordance with the elevation and anchoring requirements for
- 375 "manufactured homes" in §16.5.11.H(10).[a].
- 376 (b). Zones ~~V1-30 and~~ VE and Coastal AE (as defined by Title 16) must meet the
- 377 requirements of either §16.5.11.H.(11)(a)[1] and [2] or §16.5.11.H.(18).
- 378
- 379 (12) New construction or substantial improvement of accessory structures, as defined in Title 16,
- 380 will be exempt from the elevation criteria required in §16.5.11.H.(8) and (9) above, if all
- 381 other requirements of §16.5.11.H and all the following requirements are met:

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- 382 (a). Accessory structures located in Zones A and AE must:
- 383 [1] Meet the requirements of §16.5.11.H(1)(a) through (d), as applicable.
- 384 [2] Be limited in size to a one-story two-car garage.
- 385 [3] Have unfinished interiors and not be used for human habitation.
- 386 [4] Have hydraulic openings as specified in §16.5.11.H.(14)(b), in at least two
- 387 different walls of the accessory structure.
- 388 [5] Be located outside the floodway.
- 389 [6] When possible, be constructed and placed on the building site so as to offer
- 390 the minimum resistance to the flow of floodwaters and be placed further
- 391 from the source of flooding than is the primary structure; and
- 392 [7] Have only ground fault interrupt electrical outlets. The electric service
- 393 disconnect shall be located above the base flood elevation and when possible,
- 394 outside the special flood hazard area.
- 395 [8] Be located outside the Coastal AE Zone.
- 396 (b). Accessory structures located in Zones VE and Coastal A must meet the
- 397 requirements of 16.5.11.H(18):
- 398 (13) Floodways.
- 399 (a). In Zones ~~A1—30~~ and AE riverine areas, encroachments, including fill, new
- 400 construction, substantial improvement, and other development, are not permitted
- 401 within riverine areas, for which a regulatory floodway which is designated on the
- 402 community's Flood Insurance Rate Map, unless a technical evaluation certified by a
- 403 registered professional engineer is provided demonstrating that such encroachments
- 404 will not result in any increase in flood levels within the community during the
- 405 occurrence of the base flood discharge.
- 406 (b). In Zones ~~A1—30~~ and AE riverine areas, for which no regulatory floodway is
- 407 designated, encroachments, including fill, new construction, substantial
- 408 improvement, and other development, are not permitted in the floodway as
- 409 determined in §16.5.11.H.(13).(c) unless a technical evaluation certified by a
- 410 registered professional engineer is provided demonstrating that the cumulative
- 411 effect of the proposed development, when combined with all other existing
- 412 development and anticipated development:
- 413 [1] Will not increase the water surface elevation of the base flood more than one foot
- 414 at any point within the community; and

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- 415 [2] Is consistent with the technical criteria contained in FEMA’s guidelines and
416 standards for flood risk analysis and mapping. **Section 2-7, entitled "Hydraulic**
417 **Analyses," Flood Insurance Study—Guidelines and Specifications for Study**
418 **Contractors, FEMA 37/September, 1985, as amended.**
- 419 (c). In Zones A **and AE** riverine areas, **in for** which no regulatory floodway is
420 **designated, the regulatory floodway is** determined to be the channel of the river or
421 other watercourse and the **adjacent** land areas to a distance of 1/2 the width of the
422 floodplain as measured from the normal high-water mark to the upland limit of the
423 floodplain. **encroachments, including fill, new construction, substantial**
424 **improvement, and other development, are not permitted unless a technical**
425 **evaluation certified by a registered professional engineer is provided meeting**
426 **the requirements of Subsection 9(b) of this section.**
- 427 (14) New construction or substantial improvement of any structure in Zones A**1—30, or** AE,
428 **AO, AH and A** that meets the development standards of this section, including the elevation
429 requirements of **§16.5.11.H(8), (9) or (10)**, and is elevated on posts, columns, piers, piles,
430 **"stilts"** or crawl spaces **less than three feet in height** may be enclosed below the **base**
431 **flood** elevation requirements provided all the following criteria are met or exceeded:
- 432 **Walls, with the exception of crawl spaces less than three feet in height, must not be**
433 **part of the structural support of the building; and**
- 434 (a). Enclosed areas are not "basements" as defined in **§16.3**; and
- 435 (b). Enclosed areas **are to must** be designed to automatically equalize hydrostatic flood
436 forces on exterior walls by allowing for the entry and exit of floodwater. Designs for
437 meeting this requirement must either:
- 438 [1] Be **engineered and** certified by a registered professional engineer or architect; or
- 439 [2] Meet or exceed the following minimum criteria:
- 440 [a] A minimum of two openings having a total net area of not less than one square
441 inch for every square foot of the enclosed area;
- 442 [b] The bottom of all openings **must be below base flood elevation and may be**
443 **no higher than one foot above the lowest grade; and**
- 444 [c] Openings may be equipped with screens, louvers, valves, or other coverings or
445 devices, provided that they permit the entry and exit of floodwaters
446 automatically without any external influence or control, such as human
447 intervention, including the use of electrical and other nonautomatic mechanical
448 means. **; and**
- 449 (c) The enclosed area may not be used for human habitation; and

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450 (d) The enclosed areas ~~may be used~~ are usable solely for building ~~maintenance~~, access,
451 parking ~~of~~ vehicles, or ~~storage ing of articles and equipment used for maintenance of~~
452 ~~the building~~.

453 **(15) New construction or substantial improvement of any bridge located within Zones A, ~~A1-30~~, AE, AO, AH, A, V1-30, and VE must be designed such that:**
454

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

457 (b). A registered professional engineer shall certify that:

458 [1] The structural design and methods of construction shall meet the elevation
459 requirements of this section and the floodway standards of §16.5.11.H.(13); and

460 [2] The foundation and superstructure attached thereto are designed to resist
461 flotation, collapse, and lateral movement due to the effects of wind and water
462 loads acting simultaneously on all structural components. Water loading values
463 used shall be those associated with the base flood.

464 **(16) New construction or substantial improvement of any containment wall located within:**

465 (a) Zones A, ~~A1-30~~, AE, ~~AO, AH, V1-30~~ and VE must:

466 [1] Have the containment wall elevated to at least one foot above the base flood
467 elevation;

468 [2] Have structural components capable of resisting hydrostatic and hydrodynamic
469 loads and the effects of buoyancy; and

470 [3] Be certified by a registered professional engineer or architect that the design and
471 methods of construction are in accordance with accepted standards of practice
472 for meeting the provisions of this section. Such certification shall be provided
473 with the application for a Flood Hazard Development Permit, as required by
474 §16.5.11.E.(11).

475 **(17) New construction or substantial improvement of wharves, piers and docks are**
476 **permitted in and over water and seaward of the mean high tide if the following**
477 **requirements are met:**

478 (a) In Zones A and AE, wharves, piers and docks must comply with all applicable
479 local, state, and federal regulations; or

480 (b) In Zone VE, wharves, piers and docks must have a registered professional
481 engineer shall develop or review the structural design, specifications and plans for
482 the construction.

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483 (18) Coastal floodplains.

484 (a) ~~All New~~ construction ~~located within Zones V1-V30~~ within Zones AE and VE must be
485 located landward of the reach of the highest annual spring tide, except as provided by
486 §16.5.11.(H).(18)(f).

487 (b) New construction or substantial improvement of any structure located within Zones ~~V1-~~
488 ~~30~~ AE or VE must:

489 ~~[1] Be prohibited unless the following criteria are met:~~

490 ~~i. The area is zoned for general development or its equivalent, as defined in the~~
491 ~~Mandatory Shoreland Zoning guidelines adopted pursuant to 38 M.R.S.~~
492 ~~§438-A; or~~

493 ~~ii. The area is designated as densely developed as defined in 38 M.R.S. § 436-A,~~
494 ~~Subsection 3.~~

495 [1] Be elevated on posts or columns such that:

496 [a] The bottom of the lowest horizontal structural member of the lowest floor
497 (excluding the pilings or columns) is elevated to one foot above the base flood
498 elevation level.

499 [b] The pile or column foundation and the elevated portion of the structure attached
500 thereto is anchored to resist flotation, collapse, and lateral movement due to the
501 effects of wind and water loads acting simultaneously on all building components;
502 and

503 [c] Water loading values used must be those associated with the base flood. Wind
504 loading values used must be those required by applicable state and local building
505 standards.

506 [2] Have the space below the lowest floor:

507 [a] Free of obstructions; or

508 [b] Constructed with open wood lattice-work, or insect screening intended to collapse
509 under wind and water without causing collapse, displacement, or other structural
510 damage to the elevated portion of the building or supporting piles or columns; or

511 [c] Constructed with non-supporting breakaway walls which have a design safe
512 loading resistance of not less than 10 nor more than 20 pounds per square foot.

513 [3] Require a registered professional engineer or architect must to:

514 [a] Develop or review the structural design, specifications and plans for the
515 construction, which must meet or exceed the technical criteria contained in the

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- 516 Coastal Construction Manual (FEMA-55/~~February, 1986~~); and
- 517 [b] Certify that the design and methods of construction to be used are in accordance
518 with accepted standards of practice for meeting the criteria of §16.5.11.H(18)(b).
- 519 [4] Must have the bottom of all electrical, heating, plumbing, ventilation and air
520 conditioning equipment, permanent fixtures and components, HVAC ductwork
521 and duct systems, and any other utility service equipment, facilities, machinery,
522 or connections servicing a structure, elevated to at least one foot above the base
523 flood elevation. Systems, fixtures, equipment, and components must not be
524 mounted on or penetrate through walls intended to break away under flood
525 loads.
- 526 (c) The use of fill for structural support in Zones Coastal AE V1-30, and VE is prohibited.
- 527 (d) Human alteration of sand dunes within Zones Coastal AE V1-30, and VE is prohibited
528 unless such alterations are part of a coastal resilience project such as revegetation
529 of dunes and ~~unless~~ it can be demonstrated by a registered professional engineer that
530 such alterations will not increase potential flood damage.
- 531 (e) The ~~enclosed~~ areas below the lowest floor ~~may~~ must be used solely for parking
532 vehicles, building access, and storage.
- 533 (f) Lobster sheds and fishing sheds may be located seaward of the mean high tide and
534 shall be exempt from the elevation requirement in §16.5.11.H.(9) only if permitted
535 as a special exception use following review and approval by the Planning Board, as
536 provided in §16.5.11.I, and if all the following requirements and those of
537 §16.5.11.H(1), §16.5.11.H(13) and §16.5.11.H.(14) are met.
- 538 [1] The special exception use must be limited to low value structures such as metal
539 or woodsheds 200 square feet or less and must not exceed one story.
- 540 [2] The structure must be securely anchored to the wharf or pier to resist flotation,
541 collapse, and lateral movement due to the effect of wind and water loads acting
542 simultaneously on all building components.
- 543 [3] The structure must not adversely increase wave or debris impact forces affecting
544 nearby buildings.
- 545 [4] The structure must have unfinished interiors and must not be used for human
546 habitation.
- 547 [5] Any mechanical, utility equipment, and fuel storage tanks must be anchored and
548 either elevated or floodproofed to at least one foot above the base flood elevation.
- 549 [6] All electrical outlets must be ground fault interrupt type. The electrical service
550 disconnect shall be located on shore above the base flood elevation and when

551 possible outside the special flood hazard area.

552 **I. Special Exception Use Review**

553 (1) The Planning Board will hear and decide upon applications for special exception
554 uses provided for in this ordinance. The Planning Board will hear and approve,
555 approve with conditions, or disapprove all applications for special exception uses.
556 An applicant informed by the Code Enforcement Officer or Town Planner that a
557 special exception use permit is required must file an application for the permit with
558 the Planning Board.

559 (2) Review procedure for a special exception flood hazard development permit

560 [a] The flood hazard development permit application with additional information
561 attached addressing how each of the special exception use criteria specified in
562 this ordinance will be satisfied, may serve as the permit application for the
563 special exception permit.

564 [b] Before deciding any application, the Planning Board must hold a public
565 hearing on the application within thirty (30) days of their receipt of the
566 application.

567 [c] If the Planning Board finds that the application satisfies all relevant
568 requirements of the ordinance, the Planning Board must approve the
569 application or approve with conditions within 45 days of the date of the public
570 hearing.

571 [d] A special exception permit issued under the provisions of this ordinance will
572 expire if the work or the change involved is not commenced within 180 days of
573 the issuance of the permit by the Planning Board.

574 [e] The applicant must be notified by the Planning Board in writing over the
575 signature of the Chair of the Planning Board that The applicant must be
576 notified by the Planning Board in writing over the signature of the Chair of the
577 Planning Board that ~~the National Flood Insurance Program and by extension,~~
578 ~~those insurers under that program, will not offer insurance for structures~~
579 ~~located entirely over water or seaward of mean high tide~~ ~~insurance is not~~
580 ~~available for structures located entirely over water or seaward of mean high~~
581 ~~tide.~~

582 (3) Expansion of Special Exception Uses

583 [a] No existing building or use of any premises may be expanded or enlarged
584 without a permit issued under this section if that building or use was
585 established or constructed under a previously issued special exception permit
586 or if it is a building or use which would require a special exception permit if

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Blue highlight indicates major subsections for easier reference.

587 being newly-established or constructed under this ordinance.

588 J. **Certificate of compliance.**

589 (1) No land in a special flood hazard area may be occupied or used and no structure which is
590 constructed or substantially improved may be occupied until a certificate of compliance is
591 issued by the Code Enforcement Officer subject to the following provisions:

592 [a] For new construction or substantial improvement of any elevated structure
593 allowed by this ordinance, the applicant must submit:

594 [1] The applicant must submit An elevation certificate completed by ~~a~~ registered
595 professional Maine land surveyor, registered professional engineer, or
596 architect for compliance with §16.5.11.H(8), (9), (10) or (18); and

597 ~~A registered professional engineer or architect in the case of:~~

598 ~~[1] Floodproofed, nonresidential structures, for compliance with § 16.5.11.H(7); and~~

599 [2] For structures in Zones Coastal AE (as defined) and VE, certification by a
600 registered professional engineer or architect that the design and methods of
601 cConstruction used are in compliance of structures in the coastal floodplains
602 for compliance with §16.5.11.H.(18)(b).

603 (2) The applicant must submit written notification to the Code Enforcement Officer
604 that the development is complete and complies with the provisions of this ordinance.
605 for a certificate of compliance is to be submitted by the applicant in writing, along
606 with a completed elevation certificate, to the Code Enforcement Officer.

607 (3) Within 10 working days, the Code Enforcement Officer ~~is to~~ must: ~~review the~~
608 ~~application within 10 working days of receipt of the application and issue a~~
609 ~~certificate of compliance, provided the building conforms with the provisions of this~~
610 ~~article.~~

611 (a) Review the required certificate(s) and the applicant's written notification;
612 and

613 (b) Upon determination that the development conforms to the provisions of this
614 ordinance, issue a certificate of compliance.

615 K. **Review of subdivision and development proposals.**

616
617 (1) The Planning Board must, when reviewing subdivisions and other proposed
618 developments that require review under other federal law, state law or local ordinances or
619 regulations, and as well as all projects on five or more disturbed acres, or in the case of
620 manufactured home parks divided into two or more lots, assure that:

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- 621 (a) All such proposals are consistent with the need to minimize flood damage.
- 622 (b) All public utilities and facilities, such as sewer, gas, electrical and water systems,
623 are located and constructed to minimize or eliminate flood damages.
- 624 (c) Adequate drainage is provided so as to reduce exposure to flood hazards.
- 625 (d) All proposals include base flood elevation, flood boundaries, and, in a riverine
626 floodplain, floodway data. These determinations shall be based on engineering
627 practices recognized by the Federal Emergency Management Agency.
- 628 (e) Any proposed development plan must include a statement condition of plan
629 approval that structures on any lot in the development having any portion of
630 its land within a Special Flood Hazard Area are to be constructed in
631 accordance with §16.5.11.H of this ordinance requiring that the developer
632 will require that:
- 633 [1] sSuch requirements will be included in any deed, lease, purchase and sale
634 agreement, or document transferring or expressing an intent to transfer any
635 interest in real estate or structure, including, but not limited to, a time-share
636 interest. The statement must clearly articulate that the municipality may enforce
637 any violation of the construction requirement and that fact ~~is also to~~ must also
638 be included in the deed or any other document previously described. The
639 construction requirement must also be clearly stated on any map, plat or plan to
640 be signed by the Planning Board or local reviewing authority as part of the
641 approval process.

642 **L. Appeals and variances**

- 643
- 644 (1) The Board of Appeals may, upon written application of an aggrieved party,
645 hear and decide appeals where it is alleged that there is an error in any order,
646 requirement, decision, or determination made by, or failure to act by, the Code
647 Enforcement Officer or the Planning Board in the administration or
648 enforcement of the provisions of this Ordinance. Appeals of any requirement,
649 decision or determination made by, or a failure to act by, the Planning Board
650 must go to the York County Superior Court per §16.2.12.B(1).
- 651
- 652 (2) The Board of Appeals may grant a variance from the requirements of the
653 ordinance consistent with state law and following criteria:
- 654 (a) Variances must not be granted within any designated regulatory floodway if
655 any increase in flood levels during the base flood discharge would result.
- 656 (b) Variances will be granted only upon:
- 657 [1] A showing of good and sufficient cause, and

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- 658 [2] A determination that should a flood comparable to the base flood
659 occur, the granting of a variance will not result in increased flood
660 heights, additional threats to public safety, public expense, or create
661 nuisances, cause fraud or victimization of the public, or conflict with
662 existing local laws or ordinances; and,
- 663 [3] A showing that the issuance of the variance will not conflict with other
664 state, federal, or local laws or ordinances; and
- 665 [4] A determination that failure to grant the variance would result in
666 "undue hardship," which in this sub-section means:
- 667 [a] That the land in question cannot yield a reasonable return unless a
668 variance is granted; and
- 670 [b] That the need for a variance is due to the unique circumstances of
671 the property and not to the general conditions in the neighborhood;
672 and
- 673 [c] That the granting of a variance will not alter the essential character
674 of the locality; and
- 675 [d] That the hardship is not the result of action taken by the applicant
676 or a prior owner.
- 677 (3) Variances must only be issued upon a determination that the variance is the
678 minimum necessary, considering the flood hazard, to afford relief, and the
679 Board of Appeals may impose such conditions to a variance as is deemed
680 necessary.
- 682 (4) Variances may be issued for new construction, substantial improvements, or
683 other development for the conduct of a functionally dependent use provided
684 that:
- 686 (a) The criteria of §16.5.11.L(2) and (3) and §16.5.11.H(13) are met, and
- 687 (b) The structure or other development is protected by methods that minimize
688 flood damages during the base flood and create no additional threats to
689 public safety.
- 690 (5) Variances may be issued for the repair, reconstruction, rehabilitation, or
691 restoration of historic structures upon the determination that:
- 692 (a) The development meets the criteria of §16.5.11.L(2) and (3); and,
- 693 (b) The proposed repair, reconstruction, rehabilitation, or restoration will not
694 increase the risk of flooding to the community.

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695 preclude the structure's continued designation as a Historic Structure and
696 the variance is the minimum necessary to preserve the historic character and
697 design of the structure.

698
699 (6) Variances may be issued for new construction and substantial improvement of
700 agricultural structures being used for the conduct of agricultural uses
701 provided that:

702
703 (a) The development meets the criteria of §16.5.11.L(2) and (3); and,

704 (b) The development meets the criteria of §16.5.11.H(13) and (14).

705
706 (7) Any applicant who meets the criteria of §16.5.11.L(2) and (3) and
707 §16.5.11.L(4), (5) or (6) shall be notified by the Board of Appeals in writing
708 over the signature of the Chairman of the Board of Appeals that:

709
710 (a) The issuance of a variance to construct a structure below the base flood level
711 will result in greatly increased premium rates for flood insurance up to
712 amounts as high as \$25 per \$100 of insurance coverage; and,

713 (b) Such construction below the base flood level increases risks to life and
714 property; and

715 (c) The applicant agrees in writing that the applicant is fully aware of all the
716 risks inherent in the use of land subject to flooding, assumes those risks, and
717 agrees to indemnify and defend the municipality against any claims filed
718 against it that are related to the applicant's decision to use land located in a
719 floodplain and that the applicant individually releases the municipality from
720 any claims the applicant may have against the municipality that are related
721 to the use of land located in a floodplain.

722 (8) Any variances needed by the applicant must be approved prior to any required
723 Planning Board action through the subdivision or special exception process.

724
725 **M. Appeal Procedure for Administrative and Variance Appeals**

726
727 (1) An administrative or variance appeal may be taken to the Board of Appeals by an
728 aggrieved party within thirty days after receipt of a written decision of the Code
729 Enforcement Officer or Planning Board.

730
731 (2) Upon being notified of an appeal, the Code Enforcement Officer or the Planning
732 Board, as appropriate will transmit to the Board of Appeals all of the papers
733 constituting the record of the decision appealed from.

734

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- 735 (3) The Board of Appeals must hold a public hearing on the appeal within thirty-five
736 days of its receipt of an appeal request.
737
738 (4) The person filing the appeal will have the burden of proof.
739
740 (5) The Board of Appeals must decide all appeals within thirty-five days after the
741 close of the hearing, and issue a written decision on all appeals.
742
743 (6) The Board of Appeals must submit to the Code Enforcement Officer, a report of
744 all variance actions, including justification for the granting of the variance and an
745 authorization for the Code Enforcement Officer to issue a Flood Hazard
746 Development Permit, which includes any conditions to be attached to said permit.
747
748 (7) Any aggrieved party who participated as a party during the proceedings before
749 the Board of Appeals may take an appeal to Superior Court in accordance with
750 State laws within forty-five days from the date of any decision of the Board of
751 Appeals.
752

753 **N. Enforcement and penalties**

- 754
755 (1) It is the duty of the Code Enforcement Officer to enforce the provisions of this Ordinance
756 pursuant to Title 30-A MRSA § 4452.
757
758 (2) The penalties contained in Title 30-A MRSA § 4452 apply to any violation of this Ordinance.
759
760 (3) In addition to other actions, the Code Enforcement Officer may, upon identifying a
761 violation, submit a declaration to the Administrator of the Federal Insurance
762 Administration requesting a flood insurance denial. The valid declaration shall consist of:
763
764 (a) The name of the property owner and address or legal description of the property
765 sufficient to confirm its identity or location;
766
767 (b) A clear and unequivocal declaration that the property is in violation of a cited State
768 or local law, regulation, or ordinance;
769
770 (c) A clear statement that the public body making the declaration has authority to do
771 so and a citation to that authority;
772
773 (d) Evidence that the property owner has been provided notice of the violation and the
774 prospective denial of insurance; and,
775
776 (e) A clear statement that the declaration is being submitted pursuant to Section 1316 of the
777 National Flood Insurance Act of 1968, as amended.
778

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779 **O. Validity and severability**

780

781 **If any section or provision of this ordinance is declared by the courts to be invalid, such**
782 **decision does not invalidate any other section or provision of this ordinance.**

783

784 **P. Conflict with other ordinances**

785

786 **This ordinance will not in any way impair or remove the necessity of compliance with any**
787 **other applicable rule, ordinance, regulation, bylaw, permit, or provision of law. Where this**
788 **ordinance imposes a greater restriction upon the use of land, buildings, or structures, the**
789 **provisions of this ordinance will control.**

790

791 **Q. Abrogation**

792

793 **This ordinance repeals and replaces any municipal ordinance previously enacted to comply**
794 **with the National Flood Insurance Act of 1968 (P.L. 90-488, as amended).**

795

796 **R. Disclaimer of liability**

797

798 **The degree of flood protection required by the ordinance is considered reasonable but does**
799 **not imply total flood protection.**

800

801

Chapter 16.2.12, Decision appeal, variance and other requests –Floodplain Management Amendments – DRAFT – for May 23 public hearing

Key: Brown-orange underline and strikethrough indicates State/FEMA-required amendments

16.2.12.F Basis for Decision

- (6) ~~Appeals and Variances from floodplain requirements. The Board of Appeals may, upon written application of an aggrieved party, hear and decide appeals from determinations of the Code Enforcement Officer in the administration of the provisions of this chapter.~~ The Board of Appeals may grant a variance from the requirements of §16.5.11, Floodplain Management, see §16.5.11.L.A et seq., consistent with state law and the following criteria:
- (a) ~~Variances may not be granted within any designated regulatory floodway if any increase in flood levels during the base flood discharge would result.~~
- (b) ~~Variances may be granted only upon:~~
- [1] ~~A showing of good and sufficient cause; and~~
- [2] ~~A determination that, should a flood comparable to the base flood occur, the granting of a variance will not result in increased flood heights, additional threats to public safety, public expense, or create nuisances, cause fraud or victimization of the public or conflict with existing local laws or ordinances; and~~
- [3] ~~A showing that the existence of the variance will not cause a conflict with other state, federal or local laws or ordinances; and~~
- [4] ~~A determination that failure to grant the variance would result in "undue hardship," which in this subsection means:~~
- [a] ~~That the land in question cannot yield a reasonable return unless a variance is granted; and~~
- [b] ~~That the need for a variance is due to the unique circumstances of the property and not to the general conditions in the neighborhood; and~~
- [c] ~~That the granting of a variance will not alter the essential character of the locality; and~~
- [d] ~~That the hardship is not the result of action taken by the applicant or a prior owner.~~
- (c) ~~Variances may only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.~~
- (d) ~~Variances may be issued by the Board of Appeals for new construction, substantial improvements, or other development for the conduct of a functionally dependent use, provided that:~~

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- ~~[1]—Other criteria of this section and § 16.5.11H(9) are met; and~~
- ~~[2]—The structure or other development is protected by methods that minimize flood damages during the base flood and create no additional threats to public safety.~~
- ~~(e)—Variances may be issued by the Board of Appeals for the reconstruction, rehabilitation or restoration of structures listed on the National Register of Historic Places or a State Inventory of Historic Places, without regard to the procedures set forth in Subsection F(6)(a) through (d) of this section.~~
- ~~(f)—Any applicant who meets the criteria of Subsection F(6)(a) through (e) of this section is to be notified by the Board of Appeals, in writing, over the signature of the Chairperson of the Board of Appeals, that:~~
 - ~~[1]—The issuance of a variance to construct a structure below the base flood level will result in greatly increased premium rates for flood insurance, up to amounts as high as \$25 per \$100 of insurance coverage;~~
 - ~~[2]—Such construction below the base flood level increases risks to life and property; and~~
 - ~~[3]—The applicant agrees, in writing, that the applicant is fully aware of all the risks inherent in the use of land subject to flooding, assumes those risks and agrees to indemnify and defend the municipality against any claims filed against it that are related to the applicant's decision to use land located in a floodplain and that the applicant individually releases the municipality from any claims the applicant may have against the municipality that are related to the use of land located in a floodplain.~~
- ~~(g)—The Board of Appeals must submit to the Planning Board a report of all variance actions, including justification for the granting of the variance and an authorization for the Code Enforcement Officer to issue a flood hazard development permit, which includes any conditions to be attached to said permit.~~

Yellow highlight means a zone found on Kittery's 2024 FEMA maps

FEMA Flood Zones

Note: A 1% percent-annual-chance-flood event (as in a 1% chance every year) is also known as a 100-year storm.

A: Areas subject to inundation by the 1-percent-annual-chance flood event are generally determined using approximate methodologies. Because detailed hydraulic analyses have not been performed, no Base Flood Elevations (BFEs), or flood depths are shown. Mandatory flood insurance purchase requirements and floodplain management standards apply.

AE, A1-A30: Areas subject to inundation by the 1-percent-annual-chance flood event determined by detailed methods. Base Flood Elevations (BFEs) are shown. Mandatory flood insurance purchase requirements and floodplain management standards apply.

AH: Areas subject to inundation by 1-percent-annual-chance shallow flooding, typically areas of ponding, where average depths are between one and three feet. Base Flood Elevations (BFEs) derived from detailed hydraulic analyses are shown in this zone. Mandatory flood insurance purchase requirements and floodplain management standards apply.

AO: Areas subject to inundation by 1-percent-annual-chance shallow flooding, usually sheet flow on sloping terrain, where average depths are between one and three feet. Average flood depths derived from detailed hydraulic analyses are shown in this zone. Mandatory flood insurance purchase requirements and floodplain management standards apply.

AR: Areas that result from the decertification of a previously accredited flood protection system that is determined to be in the process of being restored to provide base flood protection. Mandatory flood insurance purchase requirements and floodplain management standards apply.

A99: Areas are subject to inundation by the 1-percent-annual-chance flood event, but will ultimately be protected upon completion of an under-construction Federal flood protection system. These are areas of special flood hazard where enough progress has been made on the construction of a protection system, such as dikes, dams, and levees, to consider it complete for insurance rating purposes. Zone A99 may only be used when the flood protection system has reached specified statutory progress toward completion. No Base Flood

Elevations (BFEs) or depths are shown. Mandatory flood insurance purchase requirements and floodplain management standards apply.

V: Areas along coasts are subject to inundation by the 1-percent-annual-chance flood event with additional hazards associated with storm-induced waves. Because detailed hydraulic analyses have not been performed, no Base Flood Elevations (BFEs) or flood depths are shown. Mandatory flood insurance purchase requirements and floodplain management standards apply.

VE, V1-V30: Areas subject to inundation by the 1-percent-annual-chance flood event with additional hazards due to storm-induced velocity wave action. Base Flood Elevations (BFEs) derived from detailed hydraulic analyses are shown. Mandatory flood insurance purchase requirements and floodplain management standards apply.

D: Areas with possible but undetermined flood risk. No analysis of flood hazards has been conducted in these areas.

X (shaded), B: Areas of moderate flood hazard between limits of the 1-percent-annual-chance floodplain and the 0.2-percent-annual-chance floodplain. Note: zone B is being replaced with shaded zone X on new FIRMs.

X (unshaded), C: Areas of minimal flood hazards outside 0.2-percent-annual-chance floodplain. Note: zone C is being replaced with unshaded zone X on new FIRMs.

Frequently Asked Questions

1. What is a floodplain management program?

Floods can happen everywhere, but most insurance policies do not cover flood damage. Since 1968, the National Flood Insurance Program (NFIP) has made subsidized flood insurance available to property owners, renters, and businesses in flood-prone areas—but only in communities that have adopted land use ordinances and flood maps that identify and regulate development in flood-prone areas. The Town of Kittery floodplain management ordinance and flood map form its floodplain management program.

2. What is a flood map?

Flood maps—known as Flood Insurance Rate Maps (FIRMs)—show how likely it is that an area will flood. These maps are a tool that communities use to identify which areas have the highest risk of flooding and are an integral part of the Town’s floodplain management program. Flood maps are also used by mortgage lenders to determine flood insurance rates and requirements.

3. Who updates flood maps?

The Federal Emergency Management Agency (FEMA) is responsible for maintaining and updating flood maps for the 20,000 communities nationwide that participate in the National Flood Insurance Program. Each year, FEMA conducts studies of flood hazards and selects certain communities for FEMA-initiated mapping updates.

4. How are flood maps updated?

Typically, flood maps are updated through a FEMA-initiated mapping update. After conducting flood hazard studies, FEMA issues proposed new flood maps—known as Preliminary Maps. Two key steps must happen for FEMA’s Preliminary Maps to become final:

- **Letter of Final Determination:** After FEMA issues its Preliminary Maps, a 90-day appeal period starts. During this appeal period, a community may file a written objection to FEMA and propose an alternative engineering analysis of flood hazards and alternative flood maps. The community must prove to FEMA that its alternative analysis and maps are scientifically and technically more accurate than the Preliminary Maps. If no appeals are filed, or once all appeals are resolved, FEMA issues a Letter of Final Determination (LFD) that establishes an effective date for the updated flood maps. The effective date is typically six months after the LFD date.
- **Community Adoption:** Once FEMA issues the LFD, affected communities have six months to adopt or amend their floodplain management program, including the updated flood maps, through their usual ordinance adoption process. This is known as community adoption.

The Preliminary Maps become effective on the date listed in the LFD. After the effective date, the flood maps are referred to as Flood Insurance Rate Maps or FIRMs.

Community Adoption -

The process by which a municipality adopts or amends its floodplain management program.

FEMA - The Federal Emergency Management Agency.

FIRM - The official Flood Insurance Rate Map, or flood map, for a community.

Floodplain Management Program -

A municipality’s floodplain management rules and flood map that allows property owners, renters, and businesses to buy subsidized flood insurance through the NFIP.

LFD - Letter of Final Determination, which is issued by FEMA after all appeals of its Preliminary Maps are resolved.

LOMR - Letter of Map Revision, generally initiated by a landowner by which FEMA can officially revise specific portions of a flood map.

NFIP - The National Flood Insurance Program managed by FEMA and delivered to the public by private insurance companies and the federal government.

Preliminary Map - A flood map proposed by FEMA as part of a FEMA-initiated mapping update.

5. Is FEMA proposing flood map updates for the Town of Kittery?

Yes. The flood maps for the Town have not been updated by FEMA since 1986. FEMA initiated map updates for the communities in York County many times over the past fifteen years, starting in 2009 and continuing through 2023.

6. Why have the Preliminary Maps for York County not been finalized yet?

FEMA's Preliminary Maps for York County exaggerate the flood risks in certain coastal areas and, if adopted without revision, would cause some property owners to need to purchase costly flood insurance even though flood risks on their properties may be low. For this reason, in October 2018, a handful of municipalities, including the Town of Kittery, appealed FEMA's Preliminary Maps. The municipalities hired an environmental engineering firm to develop an alternative hydrogeological model and analysis that identifies, with greater scientific accuracy than FEMA's Preliminary Maps, the likely flood hazard areas along the coast. In August 2019, FEMA determined that the alternative model contained a unit conversion error—specifically, a part of the model was left in meters and not converted to feet. Despite requests to allow the engineering firm to correct this minor error, FEMA denied all of the municipal appeals.

Two municipalities challenged the denial, which delayed FEMA's issuance of the Letter of Final Determination (LFD) for several years. The appeals have now been resolved and FEMA issued its LFD for York County on January 17, 2024. Affected municipalities now have six months from the LFD issue date—until July 17, 2024—to incorporate FEMA's updated flood maps into their floodplain management program.

7. What is a LOMR and how will it affect community adoption of FEMA's Preliminary Maps?

Town officials considered challenging FEMA's denial, but ultimately concluded that a legal challenge would be costly and risky. Instead, the Town pursued a community-initiated flood map revision process—known as the Letter of Map Revision (LOMR)—to surgically correct the exaggerated flood risks on FEMA's Preliminary Maps.

A LOMR does not replace a flood map or the process by which FEMA updates its flood maps. Rather, the LOMR process allows a community to petition FEMA to revise flood hazard information on a specific part of a flood map, known as a panel. A revised panel, once approved by FEMA, is automatically incorporated into the flood map. No community adoption process is required.

Using the LOMR process, the Town is working with FEMA to ensure that appropriate adjustments to the exaggerated flood risks on FEMA's Preliminary Maps are incorporated into the updated flood maps on or shortly after July 17, 2024—the FIRM effective date.

8. What happens if the Town does not timely update floodplain management program?

A community that fails to adopt the updated flood maps within the six-month community adoption period will be suspended from the National Flood Insurance Program (NFIP). Suspension from the NFIP will have immediate adverse effects: flood insurance policies cannot be renewed and new policies cannot be written. In addition, mortgage loans and disaster assistance are severely limited in communities that are suspended from the NFIP.

9. How do I determine how the updated floodplain management program will affect my property and development plans?

FEMA's Preliminary Maps, as well as the Town-initiated LOMRs, can be reviewed at the Kittery Town Hall at 200 Rogers Road, Kittery, Maine 03904. If you have any questions about the floodplain management program update or its effect on your property, please contact Kathy Connor, Project planner, at (207) 475-1325 or KConnor@kitteryme.org.



Using the Limit of Moderate Wave Action (LiMWA) to Build Safer and Stronger Coastal Communities

The National Flood Insurance Program (NFIP) depicts coastal flood hazards in two different zones on Flood Insurance Rate Maps (FIRMs):

- Zone VE, also known as the Coastal High Hazard Area (CHHA), where flood hazards include wave heights equal to or greater than 3 feet; and
- Zone AE, where flood hazards include wave heights less than 3 feet.

Due to the high risk of structural damage, buildings within Zone VE must adhere to more stringent building requirements. Communities should also be adopting the most up-to-date building codes to ensure buildings are protected from the potential hazards of high-risk floods.

Over the past decade, post-storm surveys of damage and laboratory tests have confirmed that wave heights as small as 1.5 feet can cause significant damage to coastal structures that are not built to withstand these hazards. This fact sheet describes how to use the information that is available to improve construction standards in coastal communities that have not adopted the most recent International Building Codes (I-Codes).

On a FIRM, FEMA identifies where waves can reach heights of 1.5 feet or greater using a line called the Limit of Moderate Wave Action (LiMWA). Through the LiMWA shown on the FIRMs, homeowners and communities can better understand which portions of Zone AE are at risk of high wave energy. These portions, which make up the area between the LiMWA and Zone VE, are referred to collectively as the Coastal A Zone.

While FEMA does not impose floodplain management requirements based on the LiMWA, the LiMWA communicates that a greater risk of flood damage is present in the Coastal A Zone.

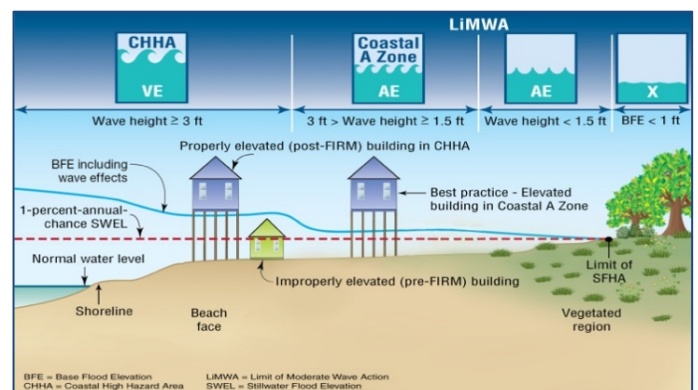
FEMA encourages the practice of building to Zone VE standards within the Coastal A Zone, and many local building codes **require** that buildings in the Coastal A Zone be built to Zone VE standards to be better protected from the dangers posed by waves.

Zone VE Building Standards for Coastal Communities

Communities that adopt Zone VE standards in the Coastal A Zone can receive Community Rating System (CRS) credits, which could lower flood insurance premiums for residents and business owners.

1. Buildings must be elevated on pile, post, pier, or column foundations.
2. Buildings must be adequately anchored to the foundation.
3. Structural fill is prohibited.
4. The bottom of the lowest horizontal structural member must be at or above the Base Flood Elevation (BFE).
5. The area below the BFE must be built of flood-resistant materials and free of obstructions. If enclosed, the enclosure must be made of lightweight wood lattice, insect screening, or breakaway walls.
6. The building design and method of construction must be certified by a design professional.

For specific requirements, refer to Title 44 of the Code of Federal Regulations, Section 60.3.



“FEMA’s mission is to support our citizens and first responders to ensure that as a nation we work together to build, sustain, and improve our capability to prepare for, protect against, respond to, recover from, and mitigate all hazards.”

Effects on Floodplain Management

- For their safety, communities are encouraged to adopt the most recent I-Codes, but at minimum, to adopt construction standards in the Coastal A Zone similar to those for Zone VE. (Refer to the sidebar on page 1 for a summary.)
- Many communities adopt a requirement for a structure to be built a few feet above the BFE, which is the potential height of a 1-percent-annual-chance flood. This added elevation, called freeboard, has at least two benefits: it adds a factor of safety to protect against flooding damage, and it reduces flood insurance premium costs.
- CRS credits are available for participating communities that adopt Zone VE building standards in the Coastal A Zone. For more information on CRS, visit: www.fema.gov/national-flood-insurance-program-community-rating-system.

Requiring design and construction within the Coastal A Zone to meet Zone VE standards is a minimum requirement under widely adopted, consensus model building codes (International Building Code and International Residential Code) as well as FEMA assistance programs.

Effects on Property Owners

- Residents and business owners living or working in the Coastal A Zone should be aware that potential wave action and floating debris could cause significant damage to their property. Property owners are encouraged to exceed the minimum requirements and build “safer and higher” to reduce the risk to life and property.
- Although the risk of damage is higher in the Coastal A Zone than in other Zone AE areas, NFIP rates for properties in the Coastal A Zone do not differ from those in other Zone AE areas.
- A federal requirement to purchase flood insurance applies in Zones V, VE, A, and AE. Property owners are encouraged to carry coverage equivalent to the replacement cost of their building and to include additional coverage for the contents of their property.

Options for Communities to Account for Coastal A Zones in Construction

The following paragraphs provide options and sample ordinance language that communities can consider to implement higher standards in the Coastal A Zone. Ideally, communities should adopt the most recent I-Codes, which recognize the Coastal A Zone and provide construction requirements for those areas. Building codes represent the most comprehensive approach to addressing construction within the Coastal A Zone. The options below provide varying levels of increased protection, and communities can choose what is most suitable for their needs. Communities should consult their legal departments to ensure the ordinance language complies with other community standards and regulations.

Adopt Zone VE standards for all properties* (most protective option)

With this option, all development in the Coastal A Zone would be subject to the same building requirements enforced by the community in Zone VE. These requirements would include the building standards highlighted on the first page of this fact sheet and apply to all new construction, substantially damaged buildings, and buildings undergoing substantial improvements.

Substantial Damage refers to the damage sustained by a building where the cost of restoring the building to its pre-damaged condition would equal or exceed 50 percent of the building’s market value before the damage occurred.

Substantial Improvement refers to enhancements or repairs that will cost 50 percent or more of the building’s pre-improvement market value (unless otherwise specified by the community).

*When using Zone VE standards in the Coastal A Zone, breakaway walls should include the appropriate number of flood openings to equalize hydrostatic loads in the enclosure. If the flood openings are not required by code, the lack of flood openings for the enclosure will result in increased flood insurance premiums.

Adopt Zone VE standards for residential structures, but continue to apply Zone AE requirements for non-residential structures*

With this option, all new residential construction, including substantial improvements and substantial damage repairs, would be subject to the same building requirements enforced by the community in Zone VE. Sample language includes:

- All new residential construction, substantial improvements, and repairs to substantially damaged buildings must comply with the building standards for Zone VE; and
- All new non-residential construction, substantial improvements, and repairs to substantially damaged buildings must comply with the community floodplain ordinance for development in Zone AE.

Additionally, communities could consider applying Zone VE standards to “light-framed construction” in the Coastal A Zone. (Wave damage is expected to be greater in buildings constructed using wood framing or light-gauge metal framing.)

Adopt Zone VE standards for new construction only*

For this option, Zone VE standards would apply only to new construction. Sample language for this option includes:

- All new construction must comply with the building standards for Zone VE; and
- All residential and non-residential buildings undergoing substantial improvement/repair must comply with the community’s floodplain ordinance for Zone AE development.

Adopt Zone VE standards for critical facilities only*

Sample language for this option includes:

- All new construction and substantial improvement or repair of critical facilities or those undergoing substantial improvements in the Coastal A Zone must comply with the building standards for Zone VE.

Adopt increased elevation requirements above the BFE—freeboard (least protective option)*

While this option should reduce damage to a building’s floor system and walls, the foundation system will need to be designed to resist the hazards posed by waves and address scour and erosion.

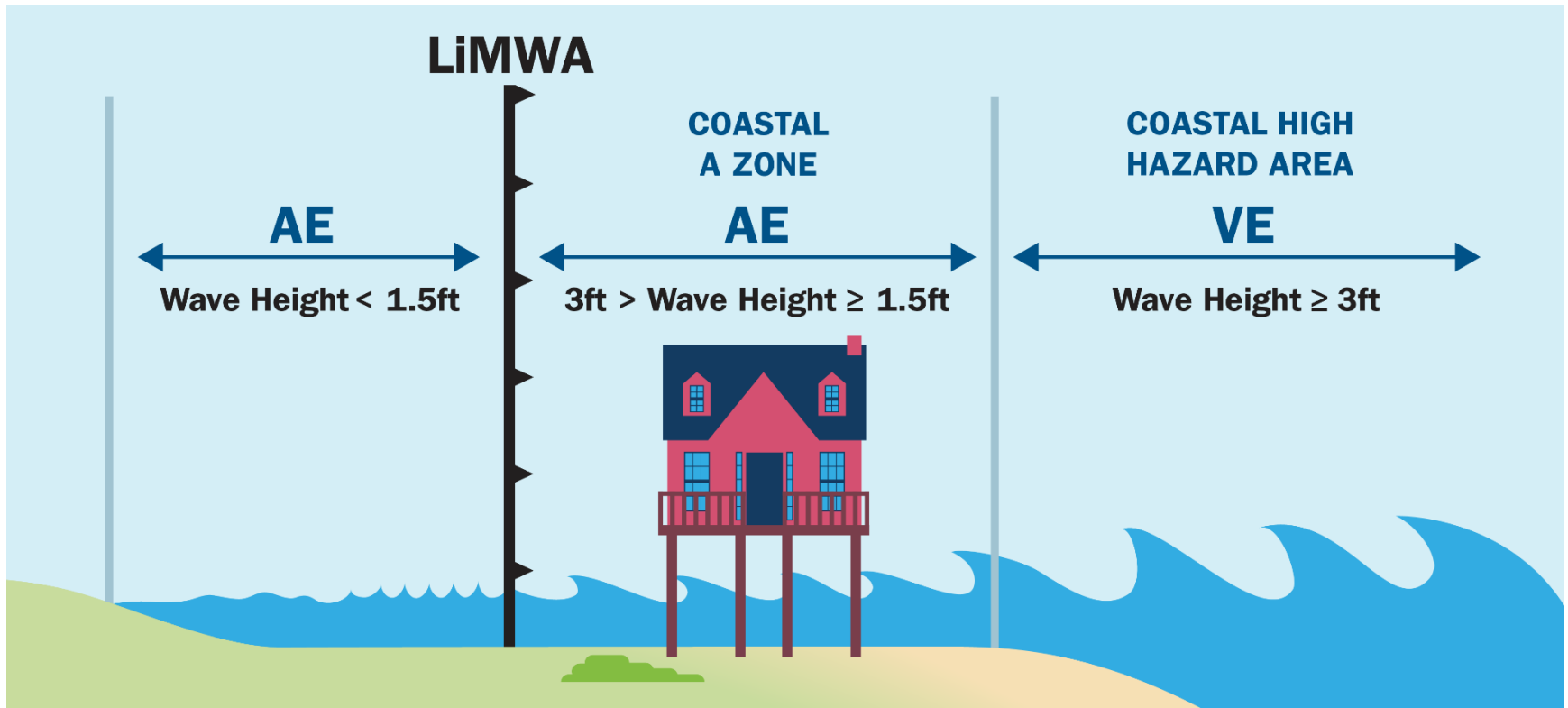
- Open foundations are recommended, with the option of a designed stem wall foundation (a continuous wall foundation with structural fill placed behind the wall system and the building constructed on a continuous slab, which caps the structural fill). The slab elevation should meet the freeboard requirements. Continuous wall foundations with a crawlspace should be avoided unless they are designed to resist breaking wave loads.
- All foundations should be sufficiently deep to resist scour and erosion. Scour around continuous foundation walls can be significantly deeper than around pile foundations (open and deep foundations).
- Pier foundations should also be designed to resist breaking wave loads and impact loads. Footings should account for scour and erosion.

Communities that only adopt increased freeboard requirements should expect buildings constructed in Coastal A Zones to experience more damage during a flood than buildings designed to Zone VE requirements.

For More Information

- To obtain model ordinances, check with your State NFIP Coordinator.
- For more information on NFIP floodplain management requirements, visit: <https://www.fema.gov/media-library/assets/documents/902>

*When using Zone VE standards in the Coastal A Zone, breakaway walls should include the appropriate number of flood openings to equalize hydrostatic loads in the enclosure. Even if the flood openings are not required by code, the lack of flood openings for the enclosure will result in increased flood insurance premiums.





Using Base Level Engineering Data to Submit a Letter of Map Amendment or Letter of Map Revision Based on Fill

August 2022



FEMA

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What Are LOMAs and LOMR-Fs?

FEMA uses scientifically and technically sound methods for flood studies. The agency is also careful to accurately apply the results of these studies on Flood Insurance Rate Maps (FIRMs). Because of scale limitations, however, FIRMs cannot reflect every rise and fall in terrain. Some small areas of high ground may be included in a Special Flood Hazard Area (SFHA).

Knowing that this occurs, FEMA set up ways for residents to change the zone designation for their property. These are the Letter of Map Amendment (LOMA) and the Letter of Map Revision-Based on Fill (LOMR-F).

- A LOMA applies to property on naturally high ground; or
- A LOMR-F applies to property that was elevated by the placement of fill.

The property's elevation is compared to the area's Base Flood Elevation (BFE). This is the height of the 1%-annual-chance flood. If the lowest ground touching a building (including a basement, deck, garage, etc.) is at or above the BFE, the building is found to be outside the SFHA. In that case, FEMA can issue a LOMA or LOMR-F removing the SFHA designation.

Anyone who owns, rents or leases property may use these processes. They will need to gather certain information. In most cases, they will need to hire a professional (e.g., licensed land surveyor, registered engineer) to certify the property's elevation and find the BFE.

How Can BLE Data Support a LOMA or LOMR-F Submittal?

A building's Lowest Adjacent Grade (LAG) is the elevation of the lowest ground that touches it. This includes a basement, deck, garage, or other attached parts. A LOMA or LOMR-F for a building compares the BFE to the LAG. If the LAG is at or above the BFE, the building is considered outside the SFHA.

However, flood maps do not show BFEs in Zone A, and many older Zone A studies do not have BFEs available. Base Level Engineering (BLE) data can be a good resource to find BFEs for Zone A areas where BFEs are not already available.

A licensed surveyor or professional engineer can provide a structure's LAG for a LOMA or LOMR-F request. However, other professionals may be needed to determine a BFE in Zone A. With help from community staff, BLE datasets allow property owners, surveyors, and others to easily determine BFEs.



What Is Base Level Engineering (BLE)?

BLE analyses combine high-resolution ground elevation datasets with modeling technology. They create high-quality engineering models and flood hazard data. This data provides flood elevations and other useful data for each stream that is studied. BLE analyses can be used to determine BFEs in Zone A areas.

BLE results may not replace the published BFEs on an effective FIRM. Those BFEs are based on FEMA's enhanced studies (e.g., for Zone AE). For LOMAs in those areas, people can get the BFE data from the Flood Insurance Study report.

Keep in mind that the effective FIRM dictates a structure's official flood zone. Only a LOMA, LOMR-F, or other map revision can update this flood zone. These updates should be based on the best available information. In Zone A, where there is no supporting water surface elevation information, BLE results may be considered the best available information.

If a BLE dataset is used to determine a BFE for a LOMA or LOMR-F, please note that on the MT-1 documents. These should include a reference for where to find the 1%-annual-chance estimated elevation or how it was determined. When adding BLE data to the Elevation Certificate for a LOMA (or LOMR-F) application, the surveyor should check the "Other/Source" box (section B10) and indicate "Base Level Engineering."

Property owners, developers, engineers, and surveyors should contact the community's floodplain administrator to check that the correct flood hazard information is being used to determine BFEs. This applies to Elevation Forms, LOMAs, LOMR-Fs, and development projects. Projects may be new construction, substantial improvements, or other development as defined by a community's flood damage prevention ordinance.

RESOURCES

Find more information on BLE, LOMR-Fs and LOMAs here:

- Base Level Engineering Analyses and Mapping Guidance: <https://go.usa.gov/xeJ7m>
- LOMA and LOMR-F Process: <https://go.usa.gov/xsMBJ>
- MT-1 and MT-EZ Application Forms and Instructions: <https://go.usa.gov/xsMKq>
- Online Letter of Map Change Web Application: <https://go.usa.gov/xsMKa>
- Elevation Certificate: <https://go.usa.gov/xG5m3>



Federal Emergency Management Agency

Washington, D.C. 20472

March 5, 2024

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Kendra Amaral
Manager, Town of Kittery
200 Rogers Road
Kittery, ME 03904

IN REPLY REFER TO:

Case No.: 24-01-0142P
Community Name: Town of Kittery, ME
Community No.: 230171
Effective Date of
This Revision: July 18, 2024

Dear Kendra Amaral:

The Flood Insurance Rate Map (FIRM) for your community has been revised by this Letter of Map Revision (LOMR). Please use the enclosed annotated map panels revised by this LOMR for floodplain management purposes and for all flood insurance policies and renewals issued in your community.

Additional documents are enclosed that provide information regarding this LOMR. Please see the List of Enclosures below to determine which documents are included. Other enclosures specific to this request may be included as referenced in the Determination Document. If you have any questions regarding floodplain management regulations for your community or the National Flood Insurance Program (NFIP) in general, please contact the Consultation Coordination Officer for your community. If you have any technical questions regarding this LOMR, please contact the Director, Mitigation Division of the Department of Homeland Security's Federal Emergency Management Agency (FEMA) in Boston, Massachusetts, at (617)956-7576, or the FEMA Mapping and Insurance eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP). Additional information about the NFIP is available on our website at <https://www.fema.gov/flood-insurance>.

Sincerely,

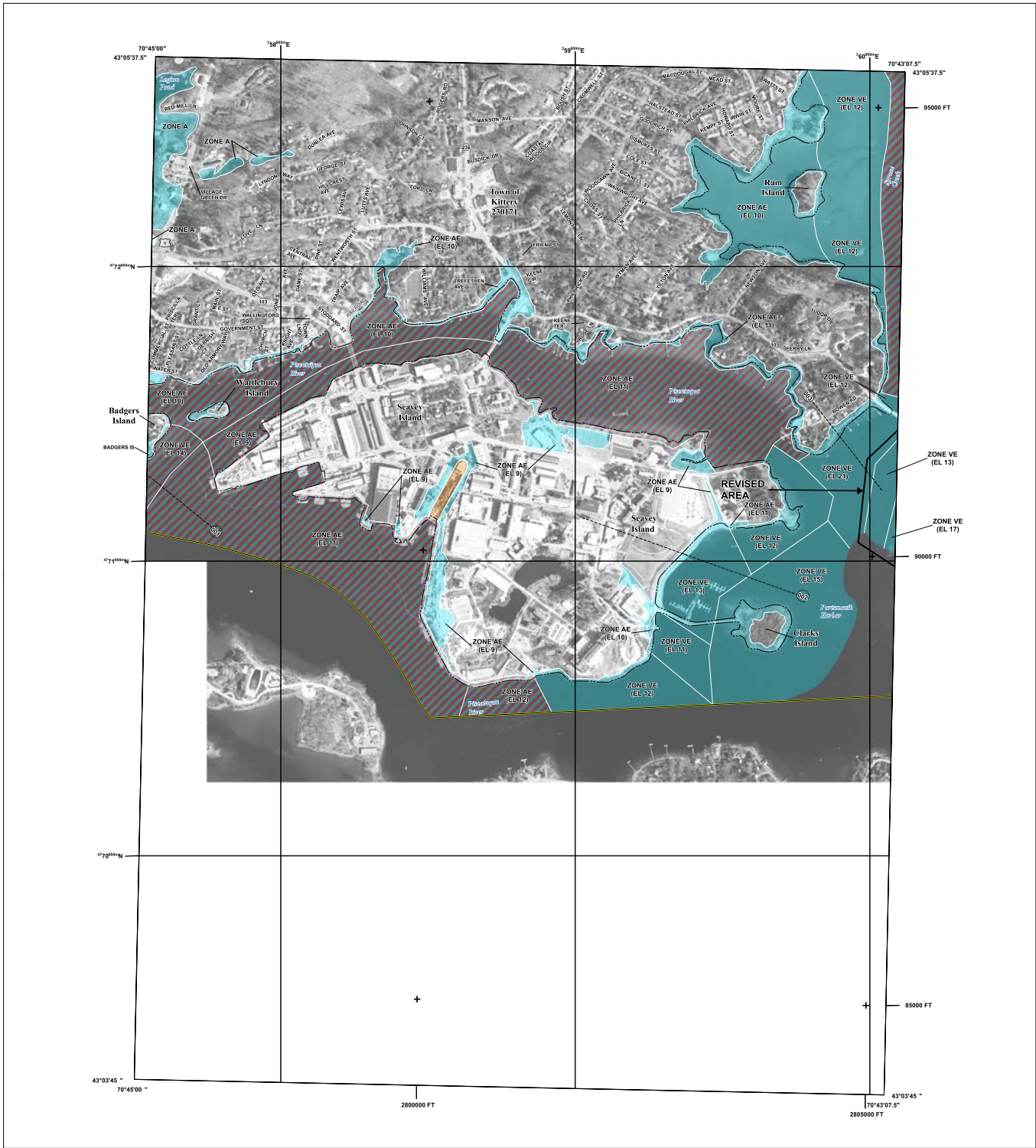
Patrick "Rick" F. Sacbabit, P.E., Branch Chief
Engineering Services Branch
Federal Insurance and Mitigation Administration

List of Enclosures:

Letter of Map Revision Determination Document
Annotated Flood Insurance Rate Map

cc: Jason Garnham
Director of Planning and Development
Town of Kittery

Scott Hayward, P.E.
Associate Project Manager
Ransom Consulting, Inc.



FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT
THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT [HTTPS://MSC.FEMA.GOV](https://MSC.FEMA.GOV)

- SPECIAL FLOOD HAZARD AREAS**
 - Without Base Flood Elevation (BFE) Zone A, X, AB, AG
 - With BFE or Depth Zone AE, AO, AP, VE, AR
 - Regulatory Floodway
 - 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
 - Future Conditions 1% Annual Chance Flood Hazard Zone X
 - Area with Reduced Flood Risk due to Levee See Notes, Zone X
 - Area with Flood Risk due to Levee Zone D
- OTHER AREAS OF FLOOD HAZARD**
 - NO SCREEN Area of Minimal Flood Hazard Zone X
 - Area of Undetermined Flood Hazard Zone D
- OTHER AREAS**
 - Channel, Culvert, or Storm Sewer
 - Levee, Dike, or Floodwall
 - Cross Sections with 1% Annual Chance Water Surface Elevation
 - Coastal Transect
 - Coastal Transect Baseline
 - Profile Baseline
 - Hydrographic Feature
 - Base Flood Elevation Line (BFE)
 - Limit of Study
 - Jurisdiction Boundary
- GENERAL STRUCTURES**
- OTHER FEATURES**

NOTES TO USERS

For information and questions about this Flood Insurance Rate Map (FIRM), available products associated with this FIRM, including historic versions, the current map date for each FIRM panel, how to order products, or the National Flood Insurance Program (NFIP) in general, please call the FEMA Mapping and Insurance Assistance at 1-877-FEMA-HELP (1-877-366-3627) or visit the FEMA Flood Map Service Center website at <http://msc.fema.gov>. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website.

Communities receiving land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM index. These may be obtained directly from the Flood Map Service Center at the number listed above.

For community and countywide map dates refer to the Flood Insurance Study Report for this jurisdiction.

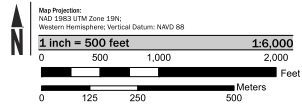
To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-8600.

Base map information shown on this FIRM provided in digital format by State of Maine, Maine office of GIS (MAGIS). This information was derived from MAGIS, dated 2012.

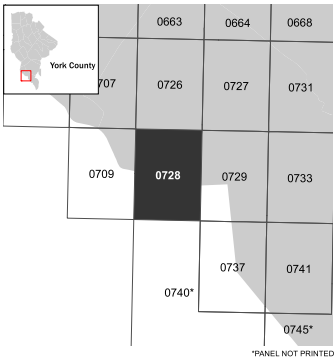
The map reflects more detailed and up-to-date stream channel configurations than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and FDTs may reflect stream channel distances that differ from what is shown on the map.

Coastal Barrier Resource System (CBRS) areas and "foreverglacial protected areas" (FPGAs) are no longer shown on this map panel, but still may be present in this community. Current information on these areas is provided by the U.S. Fish & Wildlife Service (FWS). NFIP flood insurance is not available within CBRS areas for structures that are built or substantially improved on or after the dates indicated by FWS. Users should reference the most up-to-date information provided by FWS to determine NFIP insurance eligibility. The official names and addresses information regarding CBRS areas are provided on the FWS website at www.fws.gov/cbrs. FEMA also includes the official boundaries from FWS on its interactive and geographic flood maps available through the FEMA Map Service Center.

SCALE



PANEL LOCATOR



FEMA

National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM

FLOOD INSURANCE RATE MAP

YORK COUNTY, MAINE

All Jurisdictions

PANEL 0728 of 0800

Panel Contains:

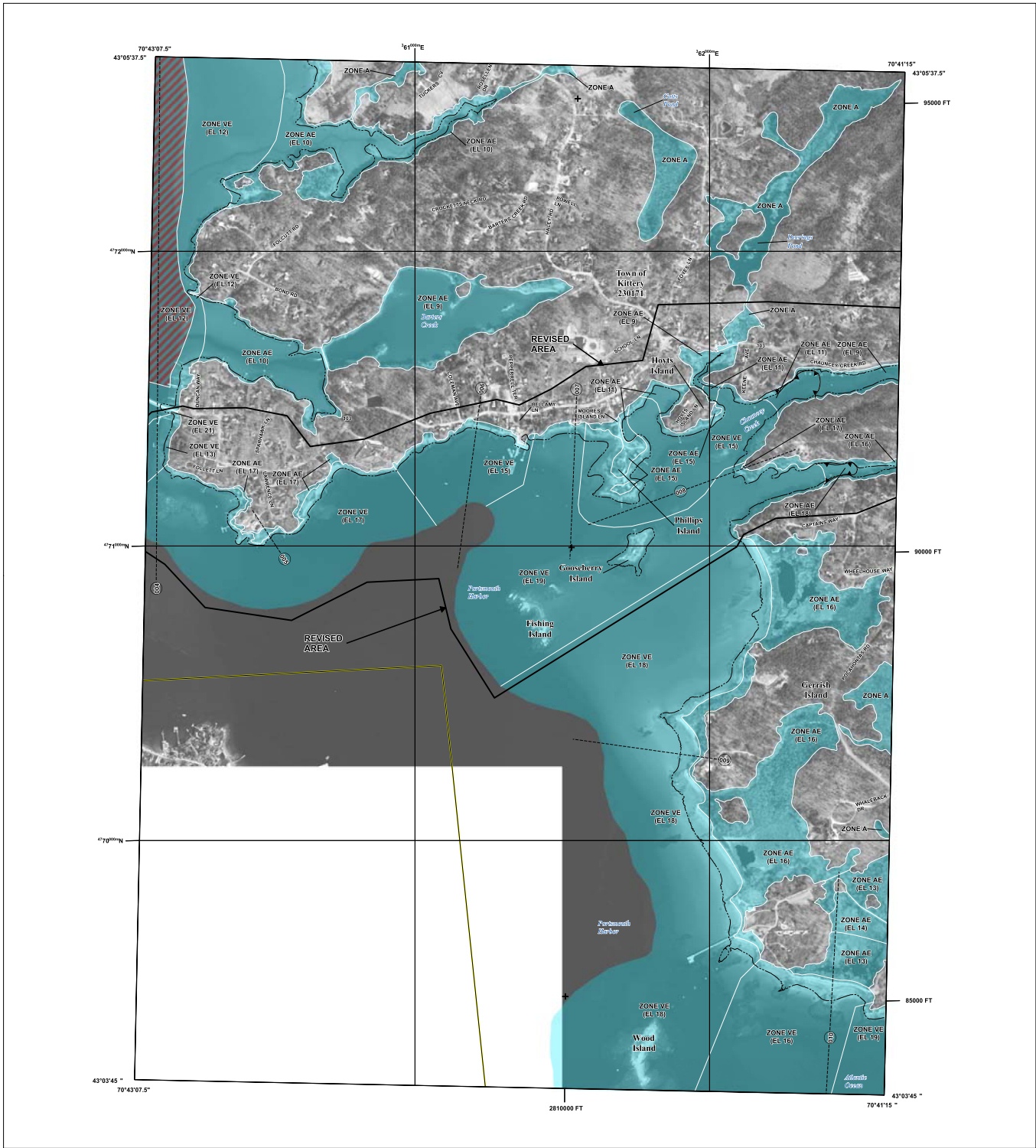
COMMUNITY	NUMBER	PANEL	SUFFIX
KITTERY, TOWN OF	230171	0728	G

REVISED TO REFLECT LEVEE EFFECTIVE: July 18, 2024

VERSION NUMBER
2.3.2.1

MAP NUMBER
23031C0728G

EFFECTIVE DATE
July 17, 2024



FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT
THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT [HTTPS://MSC.FEMA.GOV](https://MSC.FEMA.GOV)

- SPECIAL FLOOD HAZARD AREAS**
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 - Coastal Transect Baseline
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 - Hydrographic Feature
 - Base Flood Elevation Line (BFE)
 - Limit of Study
 - Jurisdiction Boundary
- OTHER FEATURES**
 - Limit of Moderate Wave Action (LIMWA)

NOTES TO USERS

For information and questions about this Flood Insurance Rate Map (FIRM), available products associated with this FIRM including floodable waters, the current map date for each FIRM panel, how to order products, or the National Flood Insurance Program (NFIP) in general, please call the FEMA Mapping and Insurance Assistance at 1-877-FEMA-9999 or visit the FEMA Flood Map Service Center website at <http://msc.fema.gov>. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website.

Communities acquiring land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM index. These may be obtained directly from the Flood Map Service Center at the number listed above.

For community and countywide map dates refer to the Flood Insurance Study Report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-8600.

Base map information shown on this FIRM provided in digital format by State of Maine, Maine Office of GIS (MOGIS). This information was derived from MOGIS, dated 2012.

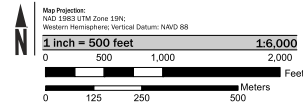
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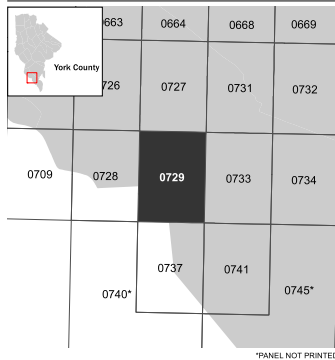
The AE Zone category has been divided by a Limit of Moderate Wave Action (LIMWA). The LIMWA represents the approximate landward limit of the 1% foot flooding wave. The effects of wave heights between the VE Zone and the LIMWA (or between the shoreline and the LIMWA for areas where VE Zones are not identified) will be similar to, but less severe than those in the VE Zone.

Limit of Moderate Wave Action (LIMWA)

SCALE



PANEL LOCATOR



FEMA

National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM

FLOOD INSURANCE RATE MAP

YORK COUNTY, MAINE

All Jurisdictions

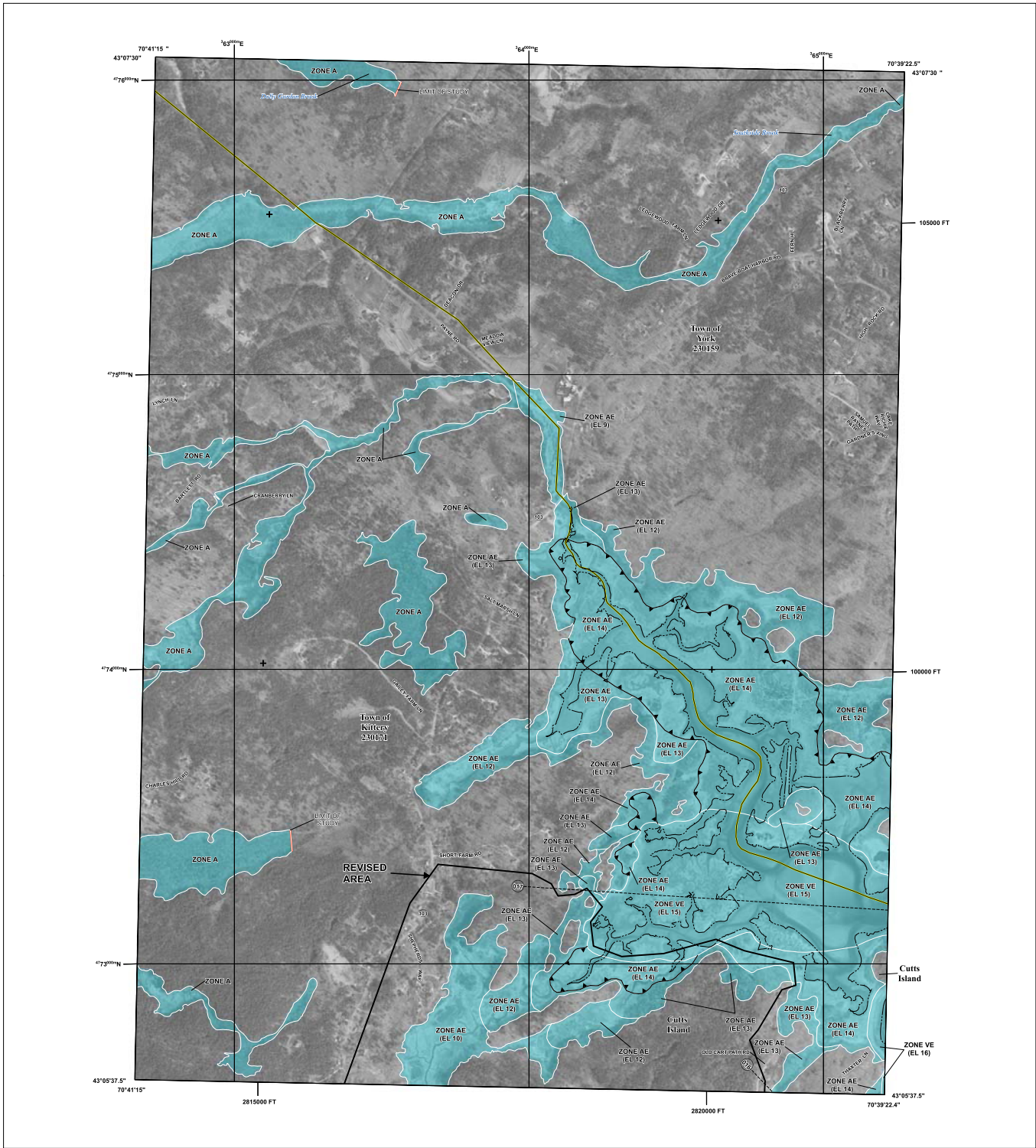
PANEL 0729 of 0800

Panel Contains: **COMMUNITY NUMBER PANEL SUFFIX**

KITTERY, TOWN OF 230171 0729 G

REVISED TO REFLECT LOWS EFFECTIVE JULY 18, 2024

VERSION NUMBER 2.3.2.1
MAP NUMBER 23031C07296
EFFECTIVE DATE July 17, 2024



FLOOD HAZARD INFORMATION

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- GENERAL STRUCTURES**
 - Cross Sections with 1% Annual Chance Water Surface Elevation
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 - 17.5
 - Coastal Transect
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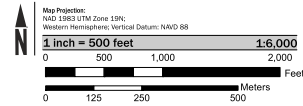
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Limit of Moderate Wave Action (LIMWA)

SCALE



PANEL LOCATOR

	3	0654	0658	0659	0678	0679
		0662	0666	0667	0686	0687
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0706	0707	0726	0727	0731	0732	
	0709	0728	0729	0733	0734	0775*
		0737	0741			
				0745*	0763	

*PANEL NOT PRINTED

FEMA

National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM
 FLOOD INSURANCE RATE MAP

YORK COUNTY, MAINE
 All Jurisdictions

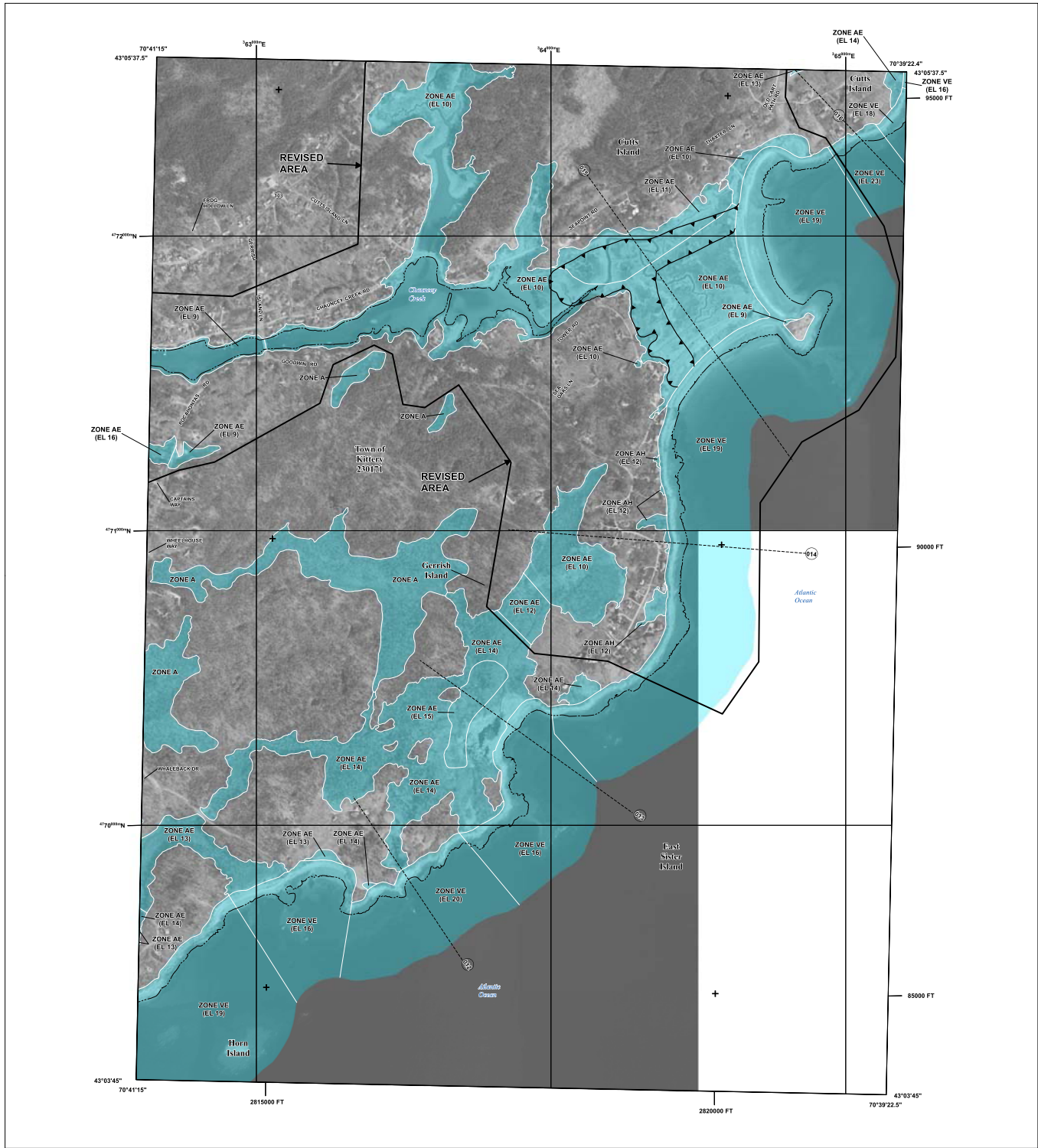
PANEL 0731 of 0800

COMMUNITY	NUMBER	PANEL	SUFFIX
KITTERY, TOWN OF	230171	0731	G
YORK, TOWN OF	230150	0731	G

Panel Contests:

REVISIONS TO REFLECT LOWR EFFECTIVE: July 18, 2024

VERSION NUMBER 2.3.2.1
 MAP NUMBER 23031C0731G
 EFFECTIVE DATE July 17, 2024



FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT
THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT [HTTPS://MSC.FEMA.GOV](https://MSC.FEMA.GOV)

- SPECIAL FLOOD HAZARD AREAS**
 - Without Base Flood Elevation (BFE) Zone A, V, AH, AR
 - With BFE or Depth Zone AE, AO, AD, AE, AR
 - Regulatory Floodway
 - 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
 - Future Conditions 1% Annual Chance Flood Hazard Zone X
 - Area with Reduced Flood Risk due to Levee See Notes, Zone X
 - Area with Flood Risk due to Levee Zone D
- OTHER AREAS OF FLOOD HAZARD**
 - NO SCREEN Area of Minimal Flood Hazard Zone X
 - Area of Undetermined Flood Hazard Zone D
- OTHER AREAS**
- GENERAL STRUCTURES**
 - Channel, Culvert, or Storm Sewer
 - Levee, Dike, or Floodwall
 - Cross Sections with 1% Annual Chance Water Surface Elevation
 - 18.2
 - 17.5
 - Coastal Transect
 - Coastal Transect Baseline
 - Profile Baseline
 - Hydrographic Feature
 - Base Flood Elevation Line (BFE)
 - Limit of Study
 - Jurisdiction Boundary
- OTHER FEATURES**

NOTES TO USERS

For information and questions about this Flood Insurance Rate Map (FIRM), available products associated with this FIRM including historic versions, the current map date for each FIRM panel, how to order products, or the National Flood Insurance Program (NFIP) in general, please call the FIRM Mapping and Insurance Helpline at 1-877-FEMA-6252 or visit the FEMA Flood Map Service Center website at <http://msc.fema.gov>. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website.

Communities appearing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM index. These may be obtained directly from the Flood Map Service Center at the number listed above.

For community and countywide map dates refer to the Flood Insurance Study Report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6060.

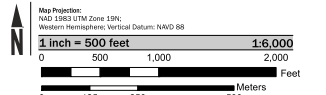
Base map information shown on this FIRM provided in digital format by State of Maine, Maine office of GIS (MaineGIS). This information was derived from MaineGIS, dated 2012.

The map reflects more detailed and up-to-date stream channel configurations than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and FDTs may reflect stream channel distances that differ from what is shown on the map.

The AE Zone category has been divided by a Limit of Moderate Wave Action (LIMWA). The LIMWA represents the appropriate benchmark limit of the 1% ACF flooding wave. The effects of wave hazards between the VE Zone and the LIMWA for between the shoreline and the LIMWA for areas where VE Zones are not identified will be similar to, but less severe than those in the VE Zone.

▲ Limit of Moderate Wave Action (LIMWA)

SCALE



PANEL LOCATOR

	1	0662	0666	0667	0686	0687
	2	0664	0668	0669	0688	0689*
0706	0707	0726	0727	0731	0732	
	0709	0728	0729	0733	0734	0775*
			0737	0741		
					0763	
					0776	0800*

*PANEL NOT PRINTED

FEMA

National Flood Insurance Program

**NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP**

YORK COUNTY, MAINE
All Jurisdictions

PANEL 0733 of 0800

Panel Contains:
 COMMUNITY NUMBER PANEL SUFFIX
 KITTERY, TOWN OF 230171 0733 G

REVISOR TO REFLECT LOW EFFECTIVE DATE: JULY 18, 2024

VERSION NUMBER 2.3.2.1
 MAP NUMBER 23031C07336
 EFFECTIVE DATE July 17, 2024

MEMORANDUM

TO:	Kendra Amaral, Town Manager Jason Garnham, AICP, Director of Planning & Development Kathy Connor, Project Planner Town of Kittery
FROM:	Aga Dixon Drummond Woodsum
DATE:	February 12, 2024
RE:	Floodplain Management Program Updates—Frequently Asked Questions

Please find enclosed a fact sheet summarizing the floodplain management program and the related community adoption and Letter of Map Revision (LOMR) processes. Feel free to use this information as part of your community outreach. If you decide to publish the fact sheet, I'd very much appreciate it if you could leave intact the Drummond Woodsum attribution at the bottom of the sheet.

If you need anything else, please don't hesitate to contact me.

/AAD

Frequently Asked Questions

1. What is a floodplain management program?

Floods can happen everywhere, but most insurance policies do not cover flood damage. Since 1968, the **National Flood Insurance Program (NFIP)** has made subsidized flood insurance available to property owners, renters, and businesses in flood-prone areas—but only in communities that have adopted land use ordinances and flood maps that identify and regulate development in flood-prone areas. The Town of Kittery floodplain management ordinance and flood map form its **floodplain management program**.

2. What is a flood map?

Flood maps—known as **Flood Insurance Rate Maps (FIRMs)**—show how likely it is that an area will flood. These maps are a tool that communities use to identify which areas have the highest risk of flooding and are an integral part of the Town’s floodplain management program. Flood maps are also used by mortgage lenders to determine flood insurance rates and requirements.

3. Who updates flood maps?

The **Federal Emergency Management Agency (FEMA)** is responsible for maintaining and updating flood maps for the 20,000 communities nationwide that participate in the National Flood Insurance Program. Each year, FEMA conducts studies of flood hazards and selects certain communities for FEMA-initiated mapping updates.

4. How are flood maps updated?

Typically, flood maps are updated through a FEMA-initiated mapping update. After conducting flood hazard studies, FEMA issues proposed new flood maps—known as **Preliminary Maps**. Two key steps must happen for FEMA’s Preliminary Maps to become final:

- **Letter of Final Determination:** After FEMA issues its Preliminary Maps, a 90-day appeal period starts. During this appeal period, a community may file a written objection to FEMA and propose an alternative engineering analysis of flood hazards and alternative flood maps. The community must prove to FEMA that its alternative analysis and maps are scientifically and technically more accurate than the Preliminary Maps. If no appeals are filed, or once all appeals are resolved, FEMA issues a **Letter of Final Determination (LFD)** that establishes an effective date for the updated flood maps. The effective date is typically six months after the LFD date.
- **Community Adoption:** Once FEMA issues the LFD, affected communities have six months to adopt or amend their floodplain management program, including the updated flood maps, through their usual ordinance adoption process. This is known as **community adoption**.

The Preliminary Maps become effective on the date listed in the LFD. After the effective date, the flood maps are referred to as Flood Insurance Rate Maps or FIRMs.

Community Adoption -

The process by which a municipality adopts or amends its floodplain management program.

FEMA - The Federal Emergency Management Agency.

FIRM - The official Flood Insurance Rate Map, or flood map, for a community.

Floodplain Management Program - A municipality’s floodplain management rules and flood map that allows property owners, renters, and businesses to buy subsidized flood insurance through the NFIP.

LFD - Letter of Final Determination, which is issued by FEMA after all appeals of its Preliminary Maps are resolved.

LOMR - Letter of Map Revision, generally initiated by a landowner by which FEMA can officially revise specific portions of a flood map.

NFIP - The National Flood Insurance Program managed by FEMA and delivered to the public by private insurance companies and the federal government.

Preliminary Map – A flood map proposed by FEMA as part of a FEMA-initiated mapping update.

5. Is FEMA proposing flood map updates for the Town of Kittery?

Yes. The flood maps for the Town have not been updated by FEMA since 1986. FEMA initiated map updates for the communities in York County many times over the past fifteen years, starting in 2009 and continuing through 2023.

6. Why have the Preliminary Maps for York County not been finalized yet?

FEMA's Preliminary Maps for York County exaggerate the flood risks in certain coastal areas and, if adopted without revision, would cause some property owners to need to purchase costly flood insurance even though flood risks on their properties may be low. For this reason, in October 2018, a handful of municipalities, including the Town of Kittery, appealed FEMA's Preliminary Maps. The municipalities hired an environmental engineering firm to develop an alternative hydrogeological model and analysis that identifies, with greater scientific accuracy than FEMA's Preliminary Maps, the likely flood hazard areas along the coast. In August 2019, FEMA determined that the alternative model contained a unit conversion error—specifically, a part of the model was left in meters and not converted to feet. Despite requests to allow the engineering firm to correct this minor error, FEMA denied all of the municipal appeals.

Two municipalities challenged the denial, which delayed FEMA's issuance of the Letter of Final Determination (LFD) for several years. The appeals have now been resolved and FEMA issued its LFD for York County on January 17, 2024. Affected municipalities now have six months from the LFD issue date—until July 17, 2024—to incorporate FEMA's updated flood maps into their floodplain management program.

7. What is a LOMR and how will it affect community adoption of FEMA's Preliminary Maps?

Town officials considered challenging FEMA's denial, but ultimately concluded that a legal challenge would be costly and risky. Instead, the Town pursued a community-initiated flood map revision process—known as the **Letter of Map Revision (LOMR)**—to surgically correct the exaggerated flood risks on FEMA's Preliminary Maps.

A LOMR does not replace a flood map or the process by which FEMA updates its flood maps. Rather, the LOMR process allows a community to petition FEMA to revise flood hazard information on a specific part of a flood map, known as a panel. A revised panel, once approved by FEMA, is automatically incorporated into the flood map. No community adoption process is required.

Using the LOMR process, the Town is working with FEMA to ensure that appropriate adjustments to the exaggerated flood risks on FEMA's Preliminary Maps are incorporated into the updated flood maps on or shortly after July 17, 2024—the FIRM effective date.

8. What happens if the Town does not timely update floodplain management program?

A community that fails to adopt the updated flood maps within the six-month community adoption period will be suspended from the National Flood Insurance Program (NFIP). Suspension from the NFIP will have immediate adverse effects: flood insurance policies cannot be renewed and new policies cannot be written. In addition, mortgage loans and disaster assistance are severely limited in communities that are suspended from the NFIP.

9. How do I determine how the updated floodplain management program will affect my property and development plans?

FEMA's Preliminary Maps, as well as the Town-initiated LOMRs, can be reviewed at the Kittery Town Hall at 200 Rogers Road, Kittery, Maine 03904. If you have any questions about the floodplain management program update or its effect on your property, please contact Kathy Connor, Project planner, at (207) 475-1325 or kconnor@kitteryme.org.