

Town of Strafford
Flood Hazard Area Zoning Ordinance
Adopted: November 1 , 2023

I. Statutory Authorization and Effect

In accordance with 24 V.S.A. Chapter 117, §§ 4424 and 4414, this is a bylaw for areas at high risk of flood damage in the Town of Strafford, Vermont. Except as additionally described below, all administrative procedures follow municipal procedures under 24 V.S.A. Chapter 117 and 44 CFR § 60.3(d).

II. Purpose

- A.** To implement the goals, policies, and recommendations in the municipal plan;
- B.** To protect health, safety and welfare of the public, minimize and prevent the loss of life and property, the disruption of commerce, the impairment of the tax base, and the extraordinary public expenditures and demands on public services that result from flooding-related inundation and erosion hazards;
- C.** Support equitable wellbeing for the entire community;
- D.** Ensure that development in our community protects floodplain and river corridor functions, and avoids and reduces damage from flooding and erosion;
- E.** Manage all flood hazard areas pursuant to 24 VSA §4382 and 10 VSA §§751, 753; and
- F.** Make the Town of Strafford, its citizens, and businesses eligible for federal flood insurance, federal disaster recovery funds, and hazard mitigation funds, as may be available.

III. Summary Table: Development Review in Hazard Areas

- P** – Permitted (Administrative Permit)
- C** – Conditional Use Review and Approval prior to Administrative Permit
- X** – Prohibited
- A** – Exempted
- S** – State Permit Required, exempt from local review

#	Activity	Flood Hazard Areas	Floodway
1	New Structures	C	X
2	Storage	C	X
3	Improvements to Existing Structures	C	C

		Flood Hazard Areas	Floodway
4	Small Accessory Structures	P	X
5	At Grade Parking	P	C
6	Replacement water supply or septic systems	C	C
7	Fill or grading resulting in no net loss of flood storage	C	C
8	Fill or grading resulting in a loss of flood storage	X	X
9	Road maintenance	A	A
10	Road improvements	C	C
11	Bridges and culverts	S, C	S, C
12	Channel management	S, C	S, C
13	Recreational vehicles	P	P
14	Open space, recreation	A	A
15	Forestry and Agriculture	S	S

IV. Flood Hazard Area Protection

A. Purpose

To protect public health and safety by avoiding cumulative increases in flood elevations, velocities, and river instability; the cumulative loss of beneficial floodplain functions; and to minimize flood damage to development and services already located within this hazard zone.

B. Lands to Which this Bylaw Applies

1. Flood Hazard Areas

This bylaw shall apply to the Special Flood Hazard Areas (SFHA) as mapped in the Town of Strafford, Vermont identified in and on the most current flood insurance studies and maps published by the Department of Homeland Security, Federal Emergency Management Agency (FEMA), National Flood Insurance Program (NFIP), as provided by the Secretary of the Agency of Natural Resources (ANR) pursuant to 10 V.S.A. § 753, which are hereby adopted by reference and declared to be part of this bylaw.

2. Base Flood Elevations and Floodway Limits

a. Where available, base flood elevations (BFE) and floodway limits provided by the NFIP and in the Flood Insurance Study and accompanying maps shall be used to administer and enforce this bylaw.

b. The floodway, as adopted by this community, shall consist of the channel of a river or other watercourse and the adjacent land areas that shall be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot at any point.

c. In the SFHA where base flood elevations and/or floodway limits have not been provided by the NFIP in the Flood Insurance Study and accompanying maps, it is the applicant's

responsibility to develop the necessary data. Where available, the applicant shall use data provided by FEMA, or state or federal agencies to administer this bylaw.

d. If the Town acquires data that indicates a change in published base flood elevations, the Town will, within 6 months, submit the technical or scientific data to Vermont ANR and the NFIP Map Specialist.

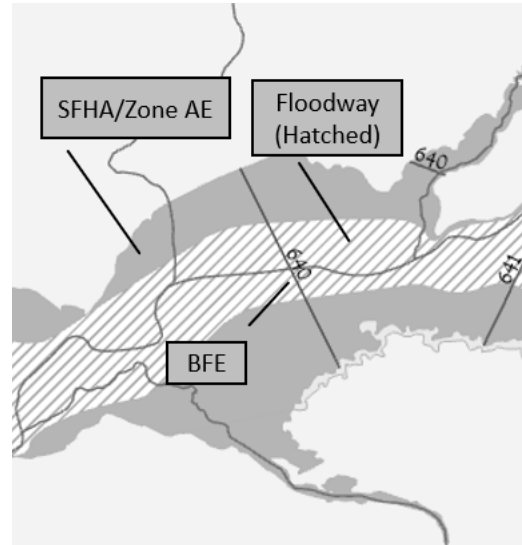


Figure 1 Diagram of Special Flood Hazard Area (SFHA) containing the Floodway (shown in hatched pattern). Also, cross-sections marked with the Base Flood Elevation (BFE) at that location.

C. Jurisdictional Determination

1. The information presented on any maps, or contained in any studies, adopted by reference, is presumed accurate. Applicants believing the map is in error shall provide a Letter of Map Amendment (LOMA) or other determination by FEMA that the development is not in the SFHA or floodway

2. If uncertainty exists with respect to the boundaries of the Flood Hazard Area, the location of the boundary shall be determined by the Administrative Officer (AO).

D. Development Requirements in the Flood Hazard Areas

1. Permits

Except as provided in Section IV D.2 Exempted Activities, a permit is required from the AO for all development that is located within the Special Flood Hazard Area. Development that requires conditional use approval or a variance from the Development Review Board (DRB) under this bylaw must have such approvals prior to the issuance of a permit by the AO. All permits shall require that a permittee have all other necessary permits from state and federal agencies before work may begin.

2. Exempted Activities

The following activities do not require a permit under this section of this bylaw:

- a. The removal of a building in whole or in part, so long as the ground elevations under and adjacent to the removed structure remain unchanged;
- b. Routine maintenance of existing buildings;
- c. Interior improvements or repairs to existing buildings that cost less than 500 dollars;
- d. Maintenance of roads, bridges, or stormwater drainage;
- e. Streambank stabilization and abutment work that do not reduce the cross-sectional flow area of the river or stream channel and have coverage under a Stream Alteration Permit, if required;
- f. Planting projects which do not include any construction or grading activities in accordance with 24 V.S.A. § 4424(c);
- g. Subdivision of land that does not involve or authorize development;
- h. The following activities are exempt from municipal regulation, but may require a permit under the State's "Vermont Flood Hazard Area and River Corridor Rule" (Environmental Protection Rule, Chapter 29):
 - i. State-owned and operated institutions and facilities;
 - ii. Forestry operations and silvicultural (forestry) activities conducted in accordance with the Vermont Department of Forests and Parks Acceptable Management Practices for Maintaining Water Quality on Logging Jobs in Vermont or other accepted silvicultural practices, as defined by the Commissioner of Forests, Parks and Recreation;
 - iii. Agricultural activities conducted in accordance with the Vermont Agency of Agriculture Food and Market's Required Agricultural Practices (RAPs). Prior to the construction of farm structures, the farmer shall notify the AO in writing of the proposed activity. The notice shall contain a sketch of the proposed structure including setbacks meeting community requirements;
 - iv. Public utilities regulated under 30 V.S.A. § 248;
 - v. Telecommunications facilities regulated under 30 V.S.A. § 248a;

3. Administrative Review; Permitted Development

The following development activities in the Special Flood Hazard Area and meeting the Development Standards in Section IV E, may receive a permit from the AO without review by the DRB:

- a. Outside of the Floodway, but within the SFHA:
 - i. Accessory structures not greater than 500 square feet;
 - ii. New fill for existing associated transportation and utility networks or to accommodate a replacement on-site septic system, if it can be demonstrated that no other practicable alternative is available;

- iii. Recreational vehicles or travel trailers;
- iv. River and floodplain restoration projects, including dam removal, that restore natural and beneficial floodplain functions and include written confirmation from the ANR Regional Floodplain Manager that the project is designed to meet or exceed the applicable standards in this bylaw;

b. Within the entire Special Flood Hazard Area (including floodway):

- i. Improvements or repairs from damage to structures that do not expand the existing footprint and do not meet the definition of “substantial improvement” or “substantial damage”;
- ii. Building utilities;
- iii. At or below grade development (e.g. parking areas, at grade patios);
- iv. Open fencing or posts;
- v. Municipal transportation infrastructure improvements designed by the Vermont Agency of Transportation that have written confirmation from the ANR Regional Floodplain Manager that the project is designed to at least meet the applicable standards in this bylaw;

4. Prohibited Development:

- c. Storage of materials or junk yards in the SFHA;

5. Conditional Use Review

In accordance with 24 V.S.A. § 4414, conditional use review and approval by the DRB is required prior to the issuance of a permit by the AO for any activity in the Special Flood Hazard Area that is not exempt, prohibited, or eligible for administrative review.

E. Development Standards within the Flood Hazard Area

1. All development below the base flood elevation except development that is exempt under Section IV D 2, shall be:

- a. Reasonably safe from flooding;
- b. Designed (or modified) and adequately anchored to prevent flotation, collapse, release, or lateral movement of the structure;
- c. Constructed with materials resistant to flood damage;
- d. Constructed by methods and practices that minimize flood damage;
- e. Constructed with electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding;

- f. Adequately drained to reduce exposure to flood hazards;
2. Replacement fuel storage tanks and vents must be elevated above the BFE and securely anchored;
- Replacement fuel storage tanks may be placed underground if a qualified professional certifies the installation will be anchored and protected from flood forces.
3. In Zones AE and A1 – A30 where floodway limits have not been determined by FEMA, development shall not be permitted unless it is determined that the development lies outside the floodway, or it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated encroachment, will not increase the base flood elevation at any point within the community. Any determination or demonstration shall be supported by technical data that conforms to standard hydraulic engineering principles and certified by a registered professional engineer;
4. Recreational vehicles, equipment, boat trailers, portable toilets, construction trailers, and other travel trailers shall:
- a. Be currently registered, licensed, and ready for highway use; or
 - b. Be on site for fewer than 180 consecutive days; or
 - c. Meet the requirements for structures in Section IV E 11;
5. Water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system;
6. Sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters;
7. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding;
8. The flood carrying capacity within any altered or relocated portion of any watercourse shall be maintained, any alteration or relocation shall not result in any decrease of stream equilibrium;
9. Bridges, culverts, and channel management activities, which by their nature shall be placed in or over the watercourse, shall have a Stream Alteration permit from the Agency of Natural Resources, if required;
10. Subdivisions and Planned Unit Developments shall be accessible by dry land access.
11. Structural Standards
- a. Substantially Improved structures (except as excluded under part e. below) shall have the lowest floor, including basement, elevated to or above the base flood elevation. This shall be documented in the proposed and as-built condition with a FEMA Elevation Certificate;
 - b. Non-residential structures to be substantially improved, replaced, or that have incurred substantial damage shall (except if excluded under part e. below):
 - i. Meet the standards of Section IV E 11a, above; or,

- ii. Have the lowest floor, including basement, together with attendant utility and sanitary facilities, designed so that elevated to or above the base flood elevation the structure is dry floodproofed, meaning watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy;
 - iii. A permit for dry floodproofing shall not be issued until a registered professional engineer or architect has reviewed the structural design, specifications, and plans, and has certified that the design and proposed methods of construction are in accordance with accepted standards of practice for meeting the provisions of this subsection;
- c. Substantially Improved structures in Zone AO shall have the lowest floor, including basement, elevated above the highest adjacent grade, at least two feet above the depth number specified on the community's FIRM, or at least three feet if no depth number is specified;
- d. Fully enclosed areas below grade on all sides (including below grade crawlspaces and basements) are prohibited;
- e. Fully enclosed areas below the lowest floor, that are above grade, below the BFE, and subject to flooding, shall:
- i. be solely used for parking of vehicles, storage, or building access, and such a condition shall clearly be stated on any permits; and be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Such designs shall be certified by a registered professional engineer or architect; or,
 - ii. meet or exceed the following minimum criteria: A minimum of two openings on two walls having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one foot above adjacent grade. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters; and
 - iii. a small accessory structure of 500 square feet or less need not be elevated to the base flood elevation if adequate flood openings are provided, the structure is placed on the site so as to offer the minimum resistance to the flow of floodwaters, and the construction meets the criteria in Section IV E1 above.

F. Development Standards within the Floodway

1. Within the Floodway new encroachments are prohibited except for the following, which also shall comply with Section IV F.2, below:

- a. changes to existing structures where the footprint is extended no closer to the waterbody and proposed to expand horizontally into the floodway less than 500 square feet;

b. new encroachments relating to bridges, culverts, roads, stabilization projects, public utilities, functionally dependent uses, and river or floodplain restoration projects;

c. new encroachments relating to health and safety measures, such as replacement of pre-existing on-site septic and water supply systems, if no other practicable alternative is available.

2. Within the Floodway all proposed new encroachments are required to provide a hydraulic analysis, performed by a registered professional engineer, in accordance with standard engineering practice, certifying that the proposed development will:

a. Not result in any increase in flood levels during the occurrence of the base flood; and,

b. Not increase any risk to surrounding properties, facilities, or structures from erosion or flooding.

3. For development that will not result in encroachment and any change in grade, the hydrologic & hydraulic analyses may be waived, where the applicant will provide pre- and post-development elevations demonstrating that there will be no change in grade, and that the development will be adequately protected from scour.

V. Other Provisions

A. Precedence of Bylaw

The provisions of this bylaw shall not in any way impair or remove the necessity of compliance with any other local, state, or federal laws or regulations. Where this bylaw imposes a greater restriction the provisions here shall take precedence.

B. Validity and Severability

If any portion of this bylaw is held unconstitutional or invalid by a competent court, the remainder of this bylaw shall not be affected.

C. Warning of Disclaimer of Liability

This bylaw does not imply that land outside of the areas covered by this bylaw will be free from flood or erosion damages. This bylaw shall not create liability on the part of the Town of Strafford, or any municipal official or employee thereof, for any flood or erosion damages that result from reliance on this bylaw, or any administrative decision lawfully made hereunder.

VI. Administration

A. Administrative Officer (AO)

An Administrative Officer (AO) shall be appointed to administer this bylaw pursuant to 24 V.S.A. § 4448. The AO shall administer this bylaw literally and in doing so shall inspect development, maintain records, enforce this bylaw, and perform all other necessary tasks to carry out the provisions of this bylaw and the statutory requirements of 24 V.S.A. Chapter 117. The AO shall not have the power to permit any land development that is not in conformance with this bylaw.

B. Development Review Board (DRB)

A Development Review Board (DRB) shall be appointed by the Selectboard in accordance with 24 V.S.A. § 4460. The DRB shall have the duties and responsibilities as described in 24 V.S.A. Chapter 117 and as otherwise required by the municipal bylaws.

C. Applications

All applications for development shall include:

1. A site plan that depicts the proposed development including water, Flood Hazard Areas, and River Corridor boundaries; the shortest horizontal distance from the proposed development to the top of bank of any stream, any existing and proposed drainage, any proposed fill, pre- and post-development grades, and the elevation of the proposed lowest floor as referenced to the same vertical datum as the elevation on the current Flood Insurance Rate Maps.
2. A copy of the ANR Permit Navigator Results Summary.

D. Action and Referrals

1. Within 30 days of receipt of a complete application the AO shall issue or deny a permit in writing. Applications needing approval by the DRB are not considered complete.
2. Any application for a proposed conditional use, variance, or appeal shall be referred by the AO to the DRB in accordance with 24 V.S.A. §§ 4448 and 4469.
3. Any application regarding New Construction, Substantial Improvement, development in a Floodway, development in a River Corridor, or a Variance shall be submitted by the AO to the State National Flood Insurance Program (NFIP) Coordinator at the Vermont Agency of Natural Resources in accordance with 24 V.S.A. § 4424. An application requiring a hearing shall not have the hearing warned until receipt of comments from the Agency, or the expiration of 30 days from the date the application was mailed to the Agency, whichever is sooner. An application not requiring a hearing may be permitted following receipt of comments from the Agency, or the expiration of 30 days from the date the application was mailed to the Agency, whichever is sooner.
4. If the applicant is seeking a permit for the alteration or relocation of a watercourse, copies of the application shall be submitted by the AO to the adjacent communities, the River Management Engineer at the Vermont Agency of Natural Resources, and the Army Corps of Engineers.

E. Public Notice

Prior to the issuance of a permit, proposals needing conditional use review, or consideration for a variance or appeal, must have a warned public hearing. Public notice of the hearing shall be provided by the AO at least 15 days before the date of the hearing by all the following:

1. Publication of the date, place, and purpose of the hearing in the newspaper of general circulation;
2. Posting of the same information in three or more public places within the Town, including posting of notice by the applicant within view from the public right of way nearest to the property for which an application is made; and,

3. Written notification to the applicant and to owners of all properties adjoining the property subject to development, without regard to any public right-of-way. In any situation in which a variance is sought regarding setbacks from a state highway, written notification shall be sent to the Secretary of Transportation. The notification shall include a description of the proposed project and shall be accompanied by information that clearly informs the recipient where additional information may be obtained, and that participation in the local proceeding is a prerequisite to the right to take any subsequent appeal.

4. The applicant shall bear the cost of the public warning and notification of adjoining landowners.

F. Decisions

1. Decisions on applications that go to the DRB for review shall be made in accordance with 24 V.S.A. § 4464 including all findings of fact, conclusions, and conditions.

2. The DRB shall consider comments from the ANR.

3. No permit shall be issued by the AO for any use or structure which requires the approval of the DRB until such approval has been obtained.

G. Permits

1. Where eligible, a permit shall be issued by the AO only in accordance with 24 V.S.A. Chapter 117;

2. Permits must state that all other necessary permits from state and federal agencies must be obtained before work may begin. A notice of permit, on a form prescribed by the Town within view from the public right-of-way most nearly adjacent to the subject property must be posted until the appeals period has passed. Any Appeals shall be made within 15 days of permit issuance.

3. The AO, within three days of the date of issuance of a permit, shall deliver a copy of the permit to the listers of the Town, and shall post a copy of the permit in the Town Offices for a period of 15 days from the date of issuance.

4. No permit shall take effect until the time for appeal (15 days) has passed, or in the event that a notice of appeal is properly filed, no such permit shall take effect until adjudication of that appeal by the DRB is complete and the time for taking an appeal to the Environmental Division of the Superior Court has passed without an appeal being taken. If an appeal is taken to the Environmental Division, the permit shall not take effect until the Environmental Division rules in accordance with 10 V.S.A. § 8504.

5. Within 30 days after a permit has been issued, or within 30 days of the issuance of any notice of violation, the appropriate municipal official shall:

a. deliver the original or a legible copy of the permit or notice of violation or a notice of permit generally in the form set forth in 24 V.S.A. § 1154(c) to the town clerk for recording as provided in 24 V.S.A. § 1154(a); and,

b. file a copy of that permit in the offices of the Town in a location where all municipal land use permits shall be kept.

6. Expiration

- a. A permit shall remain valid for two (2) years from the date it is issued as long as substantial land development has been made;
- b. Permits shall run with the land regardless of owner;
- c. Structures shall be considered abandoned where the structures are no longer being maintained as a habitable structure for a period of at least five years, regardless of evidence of intent to re-establish such use. A habitable structure is structurally sound, weathertight, with functional drinking water, wastewater, and heating systems.

H. Variances

Variances shall be granted in writing by the DRB only in accordance with all the criteria in 24 V.S.A. § 4469 after a public hearing noticed in accordance with 24 V.S.A. § 4464. If the proposed development is located within any Flood Hazard Area, the proposal shall comply with 44 C.F.R. § 60.6. Any variance issued in the Flood Hazard Area shall not increase flood heights and shall inform the applicant in writing over the signature of a community official that the issuance of a variance to construct a structure below the BFE increases risk to life and property and will result in increased flood insurance premiums up to amounts as high as \$25 for \$100 of coverage. Such notification shall be maintained with a record of all variance actions.

I. Appeals of a Permit Decision

Appeals from any decision or act of the AO in connection with this bylaw, shall be made to the DRB as provided for in 24 V.S.A. § 4465. Appeals from any decision of the DRB in connection shall be made to the Vermont Superior Court, as provided for in 24 V.S.A. § 4471.

J. Administrative Responsibilities

1. The AO shall properly file and maintain a record of:

- a. All permits and supporting documents;
- b. A FEMA Elevation Certificate for any new, replacement or substantially improved buildings (not including accessory buildings) in the Flood Hazard Area;
- c. All floodproofing and other certifications required under this regulation; and,
- d. All decisions of the AO and DRB (including those for Substantial Improvement, Substantial Damage, appeals, variances, and violations) and all supporting findings of fact, conclusions, and conditions.
- e. All Certificates of Occupancy, and receipts as required for the determination of Substantial Improvement.

2. Substantial Improvement and Substantial Damage Determinations

- a. In the event of damage of any kind to a structure located within any Flood Hazard Area, the AO shall determine if Substantial Damage occurred regardless of any intended repair at that time.

b. In the review of any proposal for the repair or improvement of a structure located within any Flood Hazard Area District, the AO shall determine if the proposal indicates Substantial Improvement.

c. Substantial Improvement or Substantial Damage determinations shall be made in accordance with current FEMA and ANR guidance, or by a procedure meeting FEMA standards and established by the Town in accordance with 24 V.S.A. § 1972.

3. Certificate of Compliance

a. A Certificate of Compliance (CC) is required for any new or Substantially Improved primary structure permitted under this bylaw. It shall be unlawful to use or occupy any structure within the areas affected by this bylaw, until a CC is issued by the AO in accordance with 24 V.S.A. § 4449 stating that the structure conforms to the requirements of this bylaw and to the RBES or CBES. A CC under this ordinance may be combined with a CC under the Strafford Unified Bylaw.

b. A certificate of compliance is not required for structures that were built in compliance with the bylaws at the time of construction and have not been improved since the adoption of this bylaw.

c. Upon receipt of the application for a certificate of compliance, the AO shall review the permit conditions and inspect the premises to ensure that:

i. any required state and federal permits have been received,

ii. all work has been completed in conformance with the zoning permit and associated approvals, and

iii. all required as-built documentation has been submitted to the AO (e.g. updated FEMA Elevation Certificate, dry floodproofing certificate, as-built volumetric analysis, or as-built floodway encroachment analysis).

d. If a certificate of compliance cannot be issued, notice will be sent to the owner and copied to the lender.

4. Enforcement

a. This bylaw shall be enforced in accordance with 24 V.S.A. §§ 1974a, 4451, and 4452. All notices of violation shall be provided to the State NFIP Coordinator.

b. No new flood insurance shall be provided for any property which the Federal Insurance Administrator finds has been declared to be in violation of local flood hazard area regulations. If any appeals have been resolved, but the violation remains, the AO shall submit a declaration to the Administrator of the National Flood Insurance Program requesting a denial of flood insurance to the property pursuant to Section 1316 of the National Flood Insurance Act of 1968, as amended. New and renewal flood insurance shall be denied to a structure upon a finding by the Federal Insurance Administrator of a valid declaration of a violation.

K. Nonconforming Structures and Uses

The DRB may, after public notice and hearing, approve the repair, relocation, replacement, or enlargement of a nonconforming structure within a hazard area provided that:

1. The proposed development is in compliance with all the Development Standards in Section IV E of this bylaw;
2. A nonconforming structure that is substantially damaged or destroyed (intentionally or unintentionally) may be reconstructed in its previous location only in circumstances when the structure cannot be relocated to a less hazardous location on the parcel. The lowest floor of the reconstructed structure must be rebuilt to the base flood elevation, and the structure must otherwise comply with all requirements of the National Flood Insurance Program;
3. Nonconforming structures shall be considered abandoned where such structures are vacant and lack basic building components that make them habitable for more than 12 months; and
4. An individual manufactured home lot in an existing manufactured home park that is vacated shall not be considered a discontinuance or abandonment of nonconformity. Replacement manufactured homes must be placed so as to meet the development standards in this bylaw.

VII. Definitions

Accessory dwelling: An efficiency or one-bedroom apartment that is clearly subordinate to a single-family dwelling, and has facilities and provisions for independent living, including sleeping, food preparation, and sanitation. Accessory dwellings are residential structures.

Accessory structure: A structure which is: 1) detached from and clearly incidental and subordinate to the principal use or structure on a lot, 2) located on the same lot as the principal structure or use, 3) clearly and customarily related to the principal structure or use, and 4) only used for vehicle parking, storage, or primarily building access. Examples include, garages, garden and tool sheds, and playhouses, but do not include “accessory dwellings.”

Area of special flood hazard: Is synonymous in meaning with the term “special flood hazard area” for the purposes of this bylaw.

Associated transportation and utility networks: Transportation and utility networks connected to a bridge, culvert, or utility for the purpose of crossing a river or stream and do not include transportation or utility networks within the river corridor that merely run parallel to a river or stream.

Base flood: The flood having a one percent chance of being equaled or exceeded in any given year (commonly referred to as the “100-year flood”).

Base Flood Elevation (BFE): The elevation of the water surface elevation resulting from a flood that has a one percent chance of equaling or exceeding that level in any given year. On the Flood Insurance Rate Map the elevation is usually in feet, in relation to the National Geodetic Vertical Datum of 1929, the North American Vertical Datum of 1988, or other datum referenced in the Flood Insurance Study report, or the average depth of the base flood, usually in feet, above the ground surface.

Basement: Any area of a building having its floor elevation below ground level on all sides, including crawlspaces.

CBES: Vermont's Commercial Building Energy Standards.

Channel: An area that contains continuously or periodic flowing water that is confined by banks and a streambed.

Compensatory storage: A volume not previously used for flood storage and which shall be incrementally equal to or exceed the theoretical volume of flood water at each elevation, up to and including the base flood elevation, which would be displaced by the proposed project. Such compensatory volume shall have an unrestricted hydraulic connection to the same waterway or water body. Further, with respect to waterways, such compensatory volume shall be provided within the same reach of the river, stream, or creek.

Common plan of development: Where a structure will be refurbished or constructed under one approved plan or permit, but in separate stages, phases, or in combination with other construction activities. Such work may be planned unit by unit and may take place at different times, on different schedules.

Construction trailer: A vehicle which is: (1) built on a single chassis; (2) 500 square feet or less when measured at the largest horizontal projection; (3) designed to be self-propelled or permanently towable; and (4) designed for use as a temporary office facility used to support management of a construction project, and not as a permanent structure.

Critical facilities: Facilities that are vital to public health and safety, including police stations, fire and rescue facilities, hospitals, shelters, schools, nursing homes, water supply and waste treatment facilities.

Designated center: A downtown, village center, new town center, growth center, or neighborhood development area designated pursuant to 24 V.S.A. chapter 76A.

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

Encroachment: Fill or development that reduces the functional river corridor (impairs the equilibrium condition) or increases flood levels.

Equilibrium condition: The width, depth, meander pattern, and longitudinal slope of a stream channel that occurs when water flow, sediment, and woody debris are transported by the stream in such a manner that it generally maintains dimensions, pattern, and slope without unnaturally aggrading or degrading the channel bed elevation.

Fill: Any placed material that changes the natural grade, increases the elevation, redirects the movement of flood water, or diminishes the flood storage capacity at the site. Temporary storage of material for less than 180 days is not considered fill.

Flood hazard: Those hazards related to damage from flood-related inundation or erosion.

Flood Insurance Rate Map (FIRM): An official map of a community, on which the Federal Insurance Administrator has delineated both the special flood hazard areas and the risk premium zones applicable to the community.

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

Floodproofing: Any combination of structural and non-structural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

Floodway: The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot at any point. Please note that flood hazard areas and floodways may be shown on a separate map panels.

Fluvial erosion: The erosion or scouring of riverbeds and banks during high flow conditions of a river. Fluvial erosion is most likely to occur within the river corridor.

Grading: The movement or replacement of topsoil or other material originating on the site and within the hazard area. Grading results in minor or no changes in topographic elevations. If new material is brought from outside the hazard area and such new material is not offset with an equal or greater removal of material from the portion of the site within the hazard area, the new material shall be considered “fill” and shall not be considered grading.

Historic structure: Any structure that is: (a) listed individually in the National Register of Historic Places (a listing maintained by the Department of the Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register; (b) certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district; (c) individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or (d) individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either: (i) by an approved state program as determined by the Secretary of the Interior or (ii) directly by the Secretary of the Interior in states without approved programs.

Lowest floor: The lowest floor of the lowest enclosed area, including basement. An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access, or storage in an area other than a basement area is not considered a building’s lowest floor provided that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of 44 C.F.R. § 60.3.

Maintenance: Periodic actions required to keep up a condition and that do not significantly change the materials or extent of an existing condition in the hazard area.

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

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

Nonconforming structure: A structure or part of a structure that does not conform to the present bylaws but was in conformance with all applicable laws, ordinances, and regulations prior to the enactment of the present bylaws, including a structure improperly authorized as a result of error by the administrative officer. Structures that were in violation of the regulations in effect at the time of their creation, and remain so, remain violations and are not nonconforming structures.

Nonconforming use: Use of land that does not conform to the present bylaws but did conform to all applicable laws, ordinances, and regulations prior to the enactment of the present bylaws, including a use improperly authorized as a result of error by the administrative officer.

Non-residential: Includes: businesses, churches, schools, nursing homes, pool houses, clubhouses, recreational buildings, government buildings, mercantile structures, industrial structures, and warehouses.

RBES: Vermont's Residential Building Energy Standards.

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

Replacement structure: A new building placed in the same footprint as the pre-existing building and does not include a change in use.

River: The full length and width, including the bed and banks, of any watercourse, including rivers, streams, creeks, brooks, and branches which experience perennial flow. "River" does not mean constructed drainageways, including water bars, swales, and roadside ditches.

River corridor: The land area adjacent to a river that is required to accommodate the dimensions, slope, planform, and buffer of the naturally stable channel and that is necessary for the natural maintenance or natural restoration of a dynamic equilibrium condition and for minimization of fluvial erosion hazards, as delineated by the Vermont Agency of Natural Resources in accordance with river corridor protection procedures. (10 V.S.A. § 1422).

Special flood hazard area (SFHA): The land in the floodplain within a community subject to a one percent or greater chance of flooding in any given year. For purposes of this bylaw, the term "area of

special flood hazard” is synonymous in meaning with the phrase “special flood hazard area.” This area is usually labeled Zone A, AE, AO, AH, or A1-30 in the most current flood insurance studies and on the maps published by FEMA. Maps of this area are available for viewing in the municipal office or online from the FEMA Map Service Center: msc.fema.gov. Base flood elevations have not been determined in Zone A where the flood risk has been mapped by approximate methods. Base flood elevations are shown at selected intervals on maps of special flood hazard areas that are determined by detailed methods. Please note, where floodways have been determined they may be shown on separate map panels from the Flood Insurance Rate Maps.

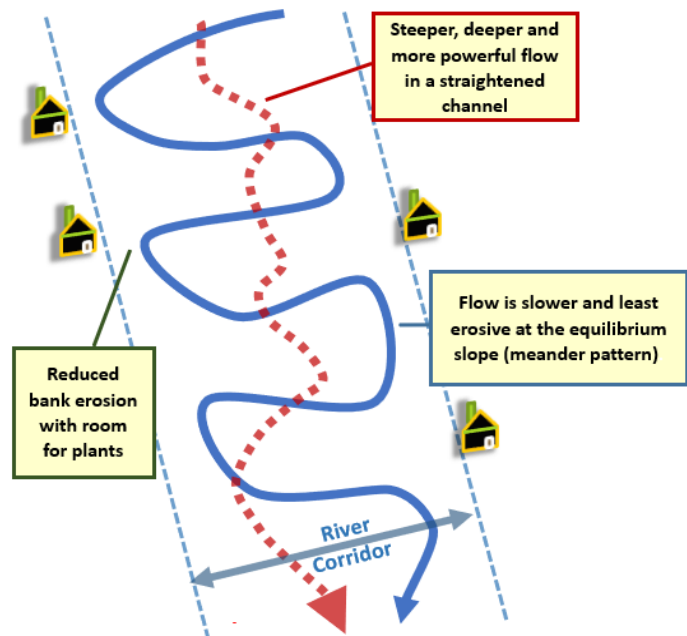


Figure 2 River Corridor Diagram showing room for river channel adjustments to minimize slope and erosive power.

Start of construction: For purposes of floodplain management, determines the effective map or bylaw that regulated development in the special flood hazard area. The “start of construction” includes substantial improvement and means the date the building permit was issued provided the actual start of construction, repair, reconstruction, rehabilitation, addition placement, or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading, and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footing, piers, or foundations, or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

Storage: The aggregation of materials, items, or objects whether natural or human-made; that is kept as a stockpile, collection, or inventory; where individual materials from the stockpile, collection or inventory may change, but where the general footprint of the stored materials continues to be used for the same purpose; whether set upon the land or within a container, structure, or facility; and that would not otherwise be in compliance with these development standards.

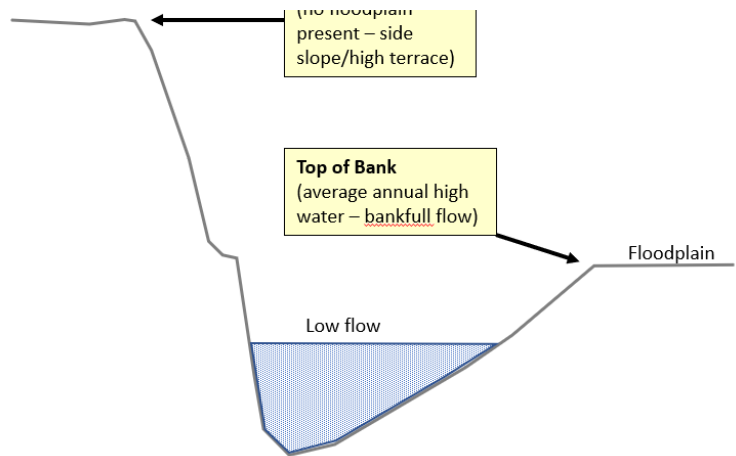
Structure: A walled and roofed building, as well as a manufactured home, including gas or liquid storage tanks.

Substantial damage: Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before-damaged conditions would equal or exceed 50 percent of the market value of the structure before the damage occurred.

Substantial improvement: Any repair, reconstruction, rehabilitation, addition, or other improvement of a structure after the date of adoption of this bylaw, the cost of which, over three years or over the period of a common plan of development, cumulatively equals or exceeds 50 percent of the market value of the structure before the “start of construction” of the improvement. This term includes structures which have incurred “substantial damage,” regardless of the actual repair work performed. The term does not, however, include either:

- (a) Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been previously identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions or
- (b) Any alteration of an “historic structure,” provided that the alteration will not preclude the structure’s continued designation as an “historic structure.”

Figure 3 Diagram showing the Top of Bank where stream flows onto a floodplain and Top of Slope where floodplain access is not present.



Top of bank: The point along a streambank where an abrupt change in slope is evident, and where the stream is generally able to overflow the banks and enter the adjacent floodplain during flows at or exceeding the average annual high water stage.

Top of slope: A break in slopes adjacent to steep-banked streams that have little or no floodplain; or a break in slope where the side slopes adjacent to an incised, or deeply cut, channel meet floodplains that have been abandoned or are undergoing abandonment.

Violation: The failure of a structure or other development to be fully compliant with this bylaw. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in 44 C.F.R. § 60.3 is presumed to be in violation until such time as that documentation is provided.