Overlay Zoning Districts

2201 FLOOD HAZARD OVERLAY DISTRICT

This section is largely mandated by federal and state requirements. Vermont DEC published a new model bylaw this summer and the proposed changes are consistent with that language. For ease of administration, the flood hazard and river corridor areas have been separated into two overlay districts.

2201.A Purpose. The Flood Hazard Overlay District is intended to:

- (1) 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;
- (2) Ensure that the selection, design, creation, and use of development in this overlay district is reasonably safe and is accomplished in a manner that minimizes or eliminates the potential for loss and damage to life and property due to flooding;
- (3) Manage special flood hazard areas in accordance with state and federal law;
- (4) Make the Town of East Montpelier, its property owners, residents and businesses eligible for federal flood insurance, federal disaster recovery funds, and hazard mitigation funds, as may be available;
- (5) Allow for the wise use of floodplain lands in a way that minimizes potential damage to existing structures and development located within this overlay district;
- (6) Provide an adequate means of protecting the beneficial functions of undeveloped floodplains and development that is already located within floodplains;
- (7) Avoid encroachments that may result in cumulative degradation of natural floodplain function leading to increased flood elevations, velocities, and river instability;
- (8) Protect infill and redevelopment from inundation hazards; and
- (9) Discourage new encroachments on undeveloped property that provides for floodwater and sediment storage.

Equivalent to Section 9.2 of adopted LUDRs. Includes additional purpose statements from state's 2018 model bylaw.

2201.B Precedence. The provisions of this section will take precedence where they impose a greater restriction than another provision of these regulations. Where there is a conflict between the provisions of this section, the most restrictive provision will apply. Proposed development within this overlay district may also be subject to the provisions of Section 2202.

- Warning. The provisions of this section do not imply that lands outside of this overlay district will be free from flooding.
- District Boundaries. The provisions of this section apply to all flood hazard areas identified on the most current flood insurance studies and maps published by the U.S.

 Department of Homeland Security, Federal Emergency Management Agency (FEMA), National Flood Insurance Program (NFIP), which are adopted by reference into these regulations. The flood hazard area consists of the floodway and flood fringe. Applicants may provide a FEMA Letter of Map Amendment (LOMA) or Letter of Map Revision (LOMR), which will constitute proof of the location of the flood hazard area boundary. A Letter of Map Revision based on Fill (LOMR-F) issued after May 2, 1983 may not be used to remove lands from the jurisdiction of this section.
- Applicability. A property owner must obtain a zoning permit for all development (as defined in Paragraph 2201.T(8)) located within this overlay district not exempted in Subsection 2202.H. The Zoning Administrator must condition all permits for development within this overlay district on the applicant obtaining all necessary state and federal permits prior to the start of construction.
- Application Requirements. In addition to all other requirements of these regulations, an application for development within this overlay district must include:
 - (1) A Project Review Sheet completed by a Vermont Agency of Natural Resources Permit Specialist;
 - (2) Base flood elevation (BFE) for:
 - (a) Replacement, substantially improved, or substantially damaged structures;
 - (b) Projects requiring elevation or dry-floodproofing above BFE; and
 - (c) Additions to existing historic structures.
 - (3) Floodway data certified by a registered professional engineer, including electronic input/output files and mapping showing cross-section locations, for any development located in the floodway that includes:
 - (a) Hydraulic calculations demonstrating no rise in BFE or velocity for proposed new or expanded encroachments within the floodway; and
 - (b) If FEMA has provided BFE data but not designated floodway areas, a floodway delineation that demonstrates that the proposed development, when combined with all existing and anticipated future development, will not increase the water surface elevation of the base flood by more than 1 foot at any point within the town.
 - (4) A No Adverse Impact (NAI) volumetric analysis and supporting data certified by a registered professional engineer for development that requires compensatory flood storage under Paragraph 2201.M(1).
- Referrals. The Zoning Administrator must send a copy of any complete application for development within this overlay district to the State National Flood Insurance Program (NFIP) Coordinator at the Vermont Agency of Natural Resources in accordance with the provisions of Paragraph 4202.A(2).

- 2201.H Exempt Development. The following development is exempt from the provisions of this section (a zoning permit or development approval may still be required under other provisions of these regulations):
 - (1) Agriculture and silviculture in accordance with Section 1103;
 - (2) Normal maintenance and repair that will not result in a change in the footprint or use of any structure;
 - (3) Demolition of a structure or portion of a structure provided that there is no change in elevation under or adjacent to the removed structure or portion of a structure (for damaged structures where owners may be using FEMA mitigation funds, FEMA may require a damaged structure to remain in place until finds are granted);
 - (4) Interior improvements to existing buildings that cost less than \$500;
 - (5) Subdivision of land;
 - (6) Public water access, paths or trails that do not require active management or alteration of the river or stream;
 - (7) Planting projects to restore natural and beneficial floodplain functions that do not involve grading or construction of structures;
 - (8) Development over or in a river or stream, or the alteration or relocation of a river or stream, permitted under a Stream Alteration Permit from the Vermont Agency of Natural Resources;
 - (9) Development permitted under a Certificate of Public Good from the Vermont Public Utilities Commission: and
 - (10) State owned and operated facilities or institutions.

This is an expanded list of exemptions from current LUDRs as provided for in the 2018 model.

2201. Prohibited Development. The following development is prohibited within this overlay district:

- (1) Fully enclosed areas below grade on all sides (including below grade crawlspaces and basements) for new, replacement or substantially improved structures, or for structures that have incurred substantial damage.
- (2) Storage of materials or junk yards.
- (3) New critical facilities.
- (4) Within the floodway:
 - (a) New encroachments, except for minor improvements to existing structures or relating to bridges, culverts, roads, stabilization projects, public utilities, river and/or floodplain restoration projects, or health and safety measures; and
 - (b) Changes to existing structures where the footprint of the structure is proposed to expand laterally into the floodway more than 500 square feet.

- (5) Within the flood fringe outside of a designated center unless the applicant demonstrates that the proposed development cannot be reasonably accommodated on a portion of the lot outside this overlay district:
 - (a) New encroachments, except for minor improvements to existing structures or relating to bridges, culverts, roads, stabilization projects, public utilities, river and/or floodplain restoration projects, or health and safety measures.
- (6) Any development within Zones AE and A1-A30 where FEMA has not determined floodway limits unless the applicant demonstrates that the cumulative impact of the proposed development, when combined with all other existing and anticipated encroachment, will not increase the base flood elevation more than 1 foot at any point within the town by submitting technical data that conforms to standard hydraulic engineering principles prepared and certified by a qualified engineer.

This is a slight change from adopted LUDRs, which allow structures in the flood fringe in the village center but prohibit them outside the village center. Proposed language opens the possibility of placing a structure in the flood fringe outside the village center if no other reasonable location exists on the lot. Due to the compensatory storage provisions, fill is no longer prohibited in the 2018 model.

2201.J Nonconforming Development. Within this overlay district, a property owner may only:

- (1) Reconstruct a nonconforming structure that has been substantially damaged or destroyed in its original location if it is rebuilt to comply with all requirements of the National Flood Insurance Program and this section;
- (2) Resume use of a nonconforming structure that has been unused or uninhabited for more than 12 months if it is brought into compliance with all requirements of the National Flood Insurance Program and this section; and
- (3) Resume a nonconforming use that has been discontinued for more than 12 months if it is brought into compliance with all requirements of the National Flood Insurance Program and this section.
- 2201.K District Standards. Except as prohibited in Subsection 2201.H, development is allowed within this overlay district to the same extent as in the underlying district provided that the applicant demonstrates compliance with Subsection 2201.L or Subsection 2201.M as applicable.

This is a change from adopted LUDRs, which has a use table and lists of permitted/conditional uses. Under this draft, being in the flood overlay would not trigger conditional use approval for development that would not otherwise require it.

2201.L Floodway Standards. Within the floodway:

- (1) New encroachments are prohibited except for the following, which must meet the requirements of Paragraph (2) below:
 - (a) Changes to existing structures where the footprint is 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; and
- (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) For new encroachments or development that will result in a change of grade allowed under Paragraph (1) above, applicants must provide either a:
 - (a) FEMA Conditional Letter of Map Revision (CLOMR) to demonstrate that the proposed development will not have an adverse impact; or
 - (b) Hydraulic analysis performed by a registered professional engineer in accordance with standard engineering practice certifying that the proposed development will:
 - (i) Not result in any increase in flood levels during the occurrence of the base flood;
 - (ii) Not increase base flood velocities; and
 - (iii) Not increase any risk to surrounding properties, facilities, or structures from erosion or flooding.
- (3) The applicant must demonstrate that any new encroachments or development allowed under Paragraph (1) above has been designed in accordance with the standards of Subsection 2201.M but not including the requirement for compensatory flood storage.

2201.M Flood Fringe Standards. Within the flood fringe:

- (1) Compensatory Flood Storage. Development that displaces floodwater storage must provide compensatory storage in accordance with the following unless exempted in Paragraph (c) below:
 - (a) Applicants must provide either:
 - (i) Volumetric analyses and supporting data prepared and certified by a qualified engineer; or
 - (ii) A hydraulic analysis that demonstrates that a project will not increase flood elevations and velocities on floodwaters prepared and certified by a qualified engineer.
 - (b) Applicants must provide a statement from a qualified engineer certifying that the compensatory flood storage design will not materially impact adjacent properties by increasing base flood elevations or velocities.
 - (c) Upon the applicant obtaining a written statement of concurrence from the Vermont Agency of Natural Resources Regional Floodplain Manager, the Zoning Administrator or Development Review Board may waive the compensatory flood storage requirement for:
 - (i) Designs that have no more than a minimal effect on floodwater storage and will not divert floodwaters onto adjacent property;

- (ii) Remediation of brownfield sites provided the applicant submits a hydraulic analysis that demonstrates that the remediation will not increase flood elevations and velocities on floodwaters prepared and certified by a qualified engineer;
- (iii) A replacement structure provided there is no increase in the structure's footprint or an open foundation design is used; and
- (iv) Roads, driveways, utilities and replacement on-site septic systems upon the applicant demonstrating that the placement of fill cannot be mitigated.

This is new language as per the 2018 model.

- (2) General Standards. Applicants must demonstrate that the proposed development will 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; and
 - (f) Adequately drained to reduce exposure to flood hazards.
- (3) Structural Standards. Applicants must demonstrate that:
 - (a) New structures, existing structures to be substantially improved or replaced, or that have incurred substantial damage will be located such that the lowest floor is at least 2 feet above base flood elevation (BFE) as documented in the proposed and as-built condition with a FEMA Elevation Certificate.
 - (b) New non-residential structures, and non-residential structures to be substantially improved, replaced, or that have incurred substantial damage will:
 - (i) Meet the standards of Subparagraph (a) above; or
 - (ii) Have the lowest floor, including basement, together with attendant utility and sanitary facilities, designed so that 2 feet above the BFE the structure is dry floodproofed in accordance with accepted standards of practice for meeting NFIP requirements as certified by a registered professional engineer or architect.
 - (c) New structures, or existing structures to be substantially improved or replaced, or that have incurred substantial damage in Zone AO will have the lowest floor, including basement, elevated above the highest adjacent grade, at least 2 feet above the depth number specified on the town's FIRM, or at least 3 feet if no depth number is specified.

- (d) Critical facilities that are to be replaced, substantially improved, or meet the definition of substantial damage will:
 - (i) Be constructed so that the lowest floor, including basement, will be elevated or dry-floodproofed at least 1 foot above the elevation of the 0.2% annual flood height (500-year floodplain), or 3 feet above BFE, whichever is higher; and
 - (ii) Have at least one access road connected to land outside the 0.2% annual chance floodplain that is capable of accommodating emergency services vehicles, and the top of the access road will be no lower than 6 inches below the elevation of the 0.2% annual chance flood event.
- (e) For historic structures that would meet the definition of substantial improvement or substantial damage if not for their historic structure designation, the improved or repaired building will meet the following mitigation performance standards for areas below the base flood elevation:
 - (i) Any future damage to enclosures below the lowest floor must not result in damage to the foundation, utility connections, or elevated portions of the building or nearby structures;
 - (ii) Utility connections (e.g., electricity, water, sewer, natural gas) must be protected from inundation and scour or be easily repaired;
 - (iii) The building foundation must be structurally sound and reinforced to withstand a base flood event;
 - (iv) The structure's historic designation must not be precluded;
 - (v) The likelihood of flood waters entering the structure during the base flood must be reduced; and
 - (vi) There must be no expansion of uses below BFE except for parking, storage, building access, or, in the case of non-residential buildings, where the space is dry floodproofed.
- (f) Fully enclosed areas that are above grade, below the lowest floor, below BFE, and subject to flooding, will:
 - (i) Be solely used for parking of vehicles, storage, or building access, and such a condition will clearly be stated on any permits;
 - (ii) Be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters in accordance with accepted standards of practice for meeting NFIP requirements as certified by a registered professional engineer or architect; and
 - (iii) Include a signed agreement from the owner of the structure with the permit application stating that the enclosed area below the BFE will not be converted to another use not listed in Subparagraph (i) above and that the Zoning Administrator will be allowed to inspect the exterior and interior of the enclosed area as necessary to ensure compliance.

- (4) Small Accessory Structures. Applicants will not be required to elevate an accessory structure with a footprint of 500 square feet or less to the base flood elevation provided that the applicant locates the structure on the building site so as to offer the minimum resistance to the flow of floodwaters and shall meet the criteria in Subparagraph 2201.M(3)(f).
- (5) Standards for Fuel Storage Tanks. Applicants must demonstrate that fuel storage tanks will be:
 - (a) Securely anchored to prevent flotation;
 - (b) Located the tank on the landward or downstream side of the building;
 - (c) Only placed on a structure or platform that is designed to withstand anticipated flood loads and forces; and
 - (d) Elevated so that all inlets, fill openings, line connections and vents will be elevated at least 2 feet above BFE. If elevating the tank is not possible due to the location of existing fuel lines or hook-up serving an existing building:
 - (i) The tank vent pipe/valve must be located at least 2 feet above BFE; or
 - (ii) The tank may be located underground provided it will be securely anchored and protected from flood forces as certified by a qualified professional.
- (6) Utilities and Service Facilities. For any new structure, replacement structure, substantially improved structure, or structure that has experienced substantial damage, applicants must demonstrate that outdoor utilities (electrical, heating, ventilation, plumbing, and air conditioning equipment) and other service facilities (such as sewer, gas, and water systems) will be located on the landward or downstream side of the building and/or behind structural elements, and will be located and constructed to minimize or eliminate flood damage.
- (7) Water and Wastewater Facilities Water supply systems must be designed to minimize or eliminate infiltration of flood waters into the system. Sanitary sewage systems must be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.
- (8) Recreational Vehicles and Temporary Structures. Recreational vehicles, equipment and boat trailers, portable toilets, construction trailers, travel trailers or other temporary or portable structures must either:
 - (a) Be currently registered, licensed and ready for highway use, if a motor vehicle or trailer;
 - (b) Be located within this overlay district for less than 180 consecutive days: or
 - (c) Conform to all applicable provisions of this section for permanent structures.

- (9) Subdivisions and Planned Unit Developments (PUDs). Applicants must design any subdivision or PUD that includes land within this overlay district so that all lots have a building envelope located outside the flood hazard area and so that all lots will be accessible over land located outside the flood hazard area.
- Variances. The Development Review Board may grant variances within this overlay district as established in Section 4405. Any variance granted for development within the flood hazard area must include the following statement, "The issuance of a variance to construct a structure below the base flood elevation increases risk to life and property and will result in increased flood insurance premiums up to amounts as high as \$25 for \$100 in coverage."
- 2201.0 Substantial Improvement and Substantial Damage Determinations. The Zoning Administrator will make a determination of substantial improvement or substantial damage in accordance with current FEMA guidelines, which will establish the appropriate standards for repair and rebuilding under this section. The applicant may provide additional documentation including, but not limited to:
 - (1) A recent building appraisal completed by a qualified professional that documents the structure's market value, excluding land value, prior to the damage or improvement;
 - (2) A cost estimate provided by a qualified professional that includes material and labor costs and a detailed accounting of the proposed project; or
 - (3) In the case of substantial damage, an estimate of structure damage prepared by a state or local official using FEMA's Substantial Damage Estimator software.
- 2201.P Certificate of Compliance. The applicant must obtain a Certificate of Compliance for all development subject to the provisions of this overlay district in accordance with the provisions of Section 4207. The Zoning Administrator must not issue a Certificate of Compliance for development within this overlay district until the applicant has submitted all required as-built documentation.
- Administrative Records. In addition to all other applicable requirements of these regulations, the Zoning Administrator must file and maintain a record of:
 - (1) FEMA Elevation Certificates with the as-built elevation of the lowest floor, including basement, of all new, replacement, substantially improved, substantially damaged or flood-proofed principal buildings; and
 - (2) All floodproofing and other certifications required under this section.
- 2201.R Violations. In addition to all other applicable provisions of these regulations, the Zoning Administrator must:
 - (1) Send a copy of any notice of violation issued for development within this overlay district to the State National Flood Insurance Program Coordinator; and
 - (2) Submit a declaration of any unresolved violation to the Administrator of the National Flood Insurance Program requesting a denial of flood insurance to the property in accordance with federal law.

- 2201.S Appeals. The applicant or other interested person may appeal any action or decision taken under this section in accordance with the provisions of Section 4402 or Section 4403, as applicable.
- Definitions. The definitions below apply to terms used within this section. Any term not defined below will be as defined in Chapter 5.
 - (1) Base Flood means the flood having a 1% chance of being equaled or exceeded in any given year (commonly referred to as the "100-year flood").
 - (2) Base Flood Elevation (BFE) means the elevation of the water surface elevation resulting from the base flood. On the Flood Insurance Rate Maps, 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 average depth of the base flood, usually in feet, above the ground surface.
 - (3) Basement means any area of the building having its floor elevation sub-grade (below ground level) on all sides.
 - (4) Compensatory Storage means a volume not previously used for flood storage that must be incrementally equal to the theoretical volume of flood water at each elevation, up to and including the base flood elevation, that would be displaced by the proposed project. Such compensatory volume must:
 - (a) Have an unrestricted hydraulic connection to the same waterway or water body; and
 - (b) Be provided within the same reach of the river, stream, or creek.
 - (5) Construction Trailer means a vehicle which is:
 - (a) Built on a single chassis;
 - (b) 500 square feet or less when measured at the largest horizontal projection;
 - (c) Designed to be self-propelled or permanently towable; and
 - (d) Designed for use as a temporary office facility used to support management of a construction project, and not as a permanent structure.
 - (6) Critical Facilities mean 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.
 - (7) Designated Center means a state designated downtown, village center, new town center, growth center, or neighborhood development area.
 - (8) Development means 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.
 - (9) Encroachment means activities or construction including fill, substantial improvements, structures and other development that may cause an increase in flood levels.

- (10) Fill means 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.
- (11) Flood means:
 - (a) A general and temporary condition of partial or complete inundation of normally dry land areas from:
 - (i) The overflow of inland or tidal waters.
 - (ii) The unusual and rapid accumulation or runoff of surface waters from any source, and
 - (iii) Mudslides which are proximately caused by flooding and are akin to a river of liquid and flowing mud on the surfaces of normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current; or
 - (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:
 - (i) Caused by waves or currents of water exceeding anticipated cyclical levels, or
 - (ii) 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 flash flood or abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding.
- (12) Flood Fringe means the portion of the flood hazard area that is outside of the floodway but still inundated by the base flood (the flood having a 1% chance of being equaled or exceeded in any given year).
- (13) Flood Hazard means those hazards related to damage from flood-related inundation or erosion.
- (14) Flood Insurance Rate Map (FIRM) means an official map of a community, on which the Federal Insurance Administrator has delineated both the special hazard areas and the risk premium zones applicable to the community. The hazard boundaries are available in paper, PDF, or Geographic Information System formats as a Digital Flood Insurance Rate Map (DFIRM).
- (15) Flood Insurance Study (FIS) means an examination, evaluation and determination of flood hazards and, if appropriate, corresponding water surface elevations or an examination, evaluation and determination of mudslide (i.e., mudflow) and/or flood-related erosion hazards.
- (16) Floodplain or Flood-Prone Area means any land area susceptible to being inundated by water from any source (see definition of "flood").
- (17) Floodproofing means any combination of structural and non-structural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

- (18) Floodway means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot at any point. Please note that flood hazard areas and floodways may be shown on a separate map panels.
- (19) Grading means 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 will be considered "fill" and will not be considered grading.
- (20) Historic Structure means 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 the Vermont State Register of Historic Places; 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.
- (21) Infill means construction, installation, modification, renovation, or rehabilitation of land, interests in land, buildings, structures, facilities, or other development in an area that was not previously developed but is surrounded by existing development.
- (22) Letter of Map Change (LOMC) means a letter issued by FEMA officially removing a structure or lot from the flood hazard area based on information provided by a certified engineer or surveyor. This is used where structures or lots are located above the base flood elevation and have been inadvertently included in the mapped special flood hazard area. A LOMC can include a Letter of Map Amendment (LOMA), Letter of Map Revision (LOMR), Letter of Map Revision based on Fill (LOMR-F), or a Letter of Map Revision for a Floodway (LOMR-FW).
- (23) Lowest Floor means 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 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 CFR § 60.3.

- (24) National Flood Insurance Program means the National Flood Insurance Program under 42 U.S.C. Chapter 50 and implementing federal regulations in 44 C.F.R. Parts 59 and 60. The National Flood Insurance Program aims to reduce the impact of flooding on private and public structures. It does so by providing affordable insurance to property owners in communities that adopt and enforce floodplain management regulations. These efforts help mitigate the effects of flooding on new and improved structures.
- (25) Natural and Beneficial Floodplain Functions mean the functions associated with the natural or relatively undisturbed floodplain that includes moderating flooding, retaining flood waters, and reducing erosion, sedimentation and flood-related damage. Ancillary beneficial functions include support of ecosystem services such as wildlife habitat, water quality, and groundwater recharge.
- (26) New Construction means structures for which the "start of construction" commenced on or after May 2, 1983 and includes any subsequent improvements to such structures.
- (27) Person means an individual, a corporation, a partnership, an association, and any other incorporated or unincorporated organization or group.
- (28) Public Water Access means a public access to a water of the state and, except for toilet facilities, will not include structures as defined in this section.
- (29) Recreational Vehicle means a vehicle that 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.
- (30) Redevelopment means construction, installation, modification, renovation, or rehabilitation of land, interests in land, buildings, structures, facilities, or other development in a previously developed area. The term includes substantial improvements and repairs to substantially damaged buildings.
- (31) Replacement Structure means a new building placed in the same footprint as the pre-existing building and does not include a change in use.
- (32) Special Flood Hazard Area means the land in the floodplain subject to a 1% or greater chance of flooding in any given year. This area is usually labeled Zone A, AO, AH, AE, or A1-30 in the most current FIS and on the FIRM. Maps of this area are available for viewing in the town office or online from the FEMA Map Service Center (msc.fema.gov). FEMA has not determined base flood elevations 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. Where floodways have been determined they may be shown on separate map panels from the FIRM.

- (33) Start of Construction means the date the town issued a permit authorizing development, 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 any of the following:
 - (a) The first placement of permanent construction of a structure on a site, which includes the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation, but does not include:
 - (i) Land preparation, such as clearing, grading and filling
 - (ii) Installation of streets and/or walkways;
 - (iii) Excavation for a basement, footing, piers, or foundations or the erection of temporary forms; or
 - (iv) Installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure.
 - (b) The placement of a manufactured home on a foundation.
 - (c) The first alteration of any wall, ceiling, floor, or other structural part of a building, regardless whether that alteration affects the external dimensions of the building.
- (34) Storage means the aggregation of materials, items, or objects whether natural or human-made:
 - (a) That is kept as a stockpile, collection, or inventory;
 - (b) 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;
 - (c) Whether set upon the land or within a container, structure, or facility; and
 - (d) That would not otherwise comply with the provisions of this section.
- (35) Structure means a walled and roofed building, as well as a manufactured home, including gas or liquid storage tanks.
- (36) Substantial Damage means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would equal or exceed 50% of the market value of the structure before the damage occurred.
- (37) Substantial Improvement means any repair, reconstruction, rehabilitation, addition, or other improvement of a structure after [the effective date of Norwich's flood regulations], the cost of which over 3 years, or over the period of a common plan of development, cumulatively equals or exceeds 50% 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 specification which have been previously identified by the code enforcement official and which are the minimum necessary to assure safe living conditions or
- (b) Any alteration of a "historic structure" provided that the alteration will not preclude the structure's continued designation as a "historic structure."
- (38) Violation means the failure of a structure or other development to be fully compliant with the provisions of this section. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in 44 CFR § 60.3 is presumed to be in violation until such time as that documentation is provided.

2202 RIVER CORRIDOR OVERLAY DISTRICT

Compare to Article 9 of adopted LUDRs. PC needs to consider whether to integrate riparian buffer language from Section 3018 with this overlay district and whether to include land within 50' from small streams in the overlay district (the 50' buffer required under Section 3018 is more restrictive of development and also has the benefit of requiring the buffer to have woody vegetation that provides areater protection against erosion).

Proposed language is based on 2018 state model language but simplifies review and administration of the standards. Being in the overlay would not trigger conditional use review unless already required for the use in the underlying district.

2202.A Purpose. The River Corridor Overlay District is intended to:

- (1) 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 fluvial erosion;
- (2) Ensure that the selection, design, creation, and use of development in this overlay district is reasonably safe and is accomplished in a manner that minimizes or eliminates the potential for loss and damage to life and property due to fluvial erosion;
- (3) Provide rivers and streams with the lateral space necessary to maintain or establish floodplain access and minimize erosion hazards through natural physical processes;
- (4) Minimize potential damage to structures and development from fluvial erosion; and
- (5) Limit encroachments in undeveloped river corridors.
- Precedence. The provisions of this section will take precedence where they impose a greater restriction than another provision of these regulations. Where there is a conflict between the provisions of this section, the most restrictive provision will apply. Proposed development within this overlay district may also be subject to the provisions of Section 2201.
- 2202.C Warning. The provisions of this section do not imply that lands outside of this overlay district will be free from fluvial erosion.
- District Boundaries. The provisions of this section apply to all land identified as a river corridor on the most current Statewide River Corridor Maps published by the Vermont Agency of Natural Resources (ANR), which are adopted by reference into these regulations, including refinements to that data based on field-based assessments. They also apply to all land within 50 feet of a mapped surface water as measured from the top of bank or top of slope. Applicants may request:
 - (1) That ANR update the river corridor map as provided for in the most current *Flood Hazard Area and River Corridor Protection Procedure*.
 - (2) A letter of determination from ANR, which will constitute proof of the location of the river corridor boundary.

- Applicability. A property owner must obtain a zoning permit for all development located within this overlay district not exempted in Subsection 2202.H. The Zoning Administrator must condition all permits for development within this overlay district on the applicant obtaining all necessary state and federal permits prior to the start of construction.
- 2202.F Application Requirements. In addition to all other requirements of these regulations, an application for development within this overlay district must include a Project Review Sheet completed by a Vermont Agency of Natural Resources Permit Specialist.
- 2202.G Referrals. The Zoning Administrator must send a copy of any complete application for development within this overlay district to the Regional Floodplain Manager at the Vermont Agency of Natural Resources in accordance with the provisions of Paragraph 4202.A(2).
- 2202.H Exempt Development. The following development is exempt from the provisions of this section (a zoning permit or development approval may still be required under other provisions of these regulations):
 - (1) Agriculture and silviculture in accordance with Section 1103;
 - (2) Septic systems and wells permitted under a state Wastewater System and Potable Water Supply Permit from the Vermont Agency of Natural Resources;
 - (3) Normal maintenance and repair that will not result in a change in the footprint or use of any structure;
 - (4) Demolition of a structure or portion of a structure provided that there is no change in elevation under or adjacent to the removed structure or portion of a structure;
 - (5) Subdivision of land;
 - (6) Public water access, paths or trails that do not require active management or alteration of the river or stream;
 - (7) Planting projects to restore natural and beneficial floodplain functions that do not involve grading or construction of structures;
 - (8) Development over or in a river or stream, or the alteration or relocation of a river or stream, permitted under a Stream Alteration Permit from the Vermont Agency of Natural Resources;
 - (9) Development permitted under a Certificate of Public Good from the Vermont Public Utilities Commission; and
 - (10) State owned and operated facilities and institutions.
- District Standards. Development is allowed within this overlay district to the same extent as in the underlying district provided:
 - (1) The applicant demonstrates that the proposed development cannot be reasonably accommodated on the portion of the lot outside this overlay district.

- (2) For land within a designated center or within 50 feet of a natural pond, the applicant must demonstrate that the proposed development will not be any closer to the surface water than pre-existing adjacent development.
- (3) For land outside a designated center and within the river corridor or 50 feet of a stream, the applicant must demonstrate that the proposed development will meet either Subparagraph (a), (b) or (c) below:
 - (a) Development must be located no closer to the channel than the adjacent existing primary structures with a gap that is no more than 300 feet.
 - (b) An addition to an existing structure or an accessory structure to an existing structure, including underground utilities, must be located:
 - (i) In the shadow area directly behind and further from the channel than the existing structure; or
 - (ii) Within 50 feet to the downstream side and no closer to the top of bank than the existing structure.
 - (c) A qualified engineer must certify that the proposed development will:
 - (i) Not be placed on land with a history of fluvial erosion damage or be imminently threatened by fluvial erosion;
 - (ii) Not cause the river or stream reach to depart or further depart from the channel width, depth, meander pattern and slope associated with natural river or stream processes and equilibrium conditions; and
 - (iii) Not result in an immediate need or anticipated future need for stream channelization solely as a result of the proposed development.
- (4) For land outside a designated center, the applicant demonstrates that natural woody vegetation will be maintained or established within the river corridor and surface water setback except that:
 - (a) Land within 15 feet of a structure may be maintained as mowed lawn (this will not be interpreted to require establishment of woody vegetation to replace existing areas of mowed lawn on single- or two-family residential properties that are more than 15 feet from a structure).
 - (b) Water-dependent structures or uses, public recreation facilities and public trails or walkways will be allowed to the extent allowed in the applicable zoning district.
 - (c) Private water access, outdoor recreation, or outdoor seating may occupy not more than 500 square feet within the riparian buffer. That area may be covered with mowed lawn, decks, patios, walkways or other impervious surfaces.
 - (d) The vegetation within the riparian buffer may be used in conjunction with green stormwater infrastructure (GSI) practices provided that such practices will not significantly compromise the existing functions of naturally vegetated riparian buffers.

- 2202.J Certificate of Compliance. The applicant must obtain a Certificate of Compliance for all development subject to the provisions of this overlay district in accordance with the provisions of Section 4207.
- Violations. In addition to all other applicable provisions of these regulations, the Zoning Administrator must send a copy of any notice of violation issued for development within this overlay district to the Regional Floodplain Manager at the Vermont Agency of Natural Resources.
- Definitions. The definitions below apply to terms used within this section. Any term not defined below will be as defined in Chapter 5.
 - (1) Channel means an area that contains continuously or periodic flowing water that is confined by banks and a streambed.
 - (2) Designated Center means a state designated downtown, village center, new town center, growth center, or neighborhood development area.
 - (3) Equilibrium Condition means 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.
 - (4) Fluvial Erosion means 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.
 - (5) Natural and Beneficial Floodplain Functions mean the functions associated with the natural or relatively undisturbed floodplain that includes moderating flooding, retaining flood waters, and reducing erosion, sedimentation and flood-related damage. Ancillary beneficial functions include support of ecosystem services such as wildlife habitat, water quality, and groundwater recharge.
 - (6) River means the full length and width, including the bed and banks, of any watercourse, including rivers, streams, creeks, brooks, and branches which experience perennial flow. It does not mean constructed drainageways, including water bars, swales, and roadside ditches.
 - (7) River Corridor means 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 VSA § 1422).
 - (8) Top of Bank means 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.
 - (9) Top of Slope means 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.

(10) Watercourse means any perennial stream and shall not include ditches or other constructed channels primarily associated with land drainage or water conveyance through or around private or public infrastructure.