



## MEMORANDUM

TO: City of Burlington Planning Commission Chair  
Town of Shelburne Planning Commission Chair  
Town of Colchester Planning Commission Chair  
Town of Williston Planning Commission Chair  
City of Winooski Planning Commission Chair  
Town of Essex Planning Commission Chair  
Village of Essex Junction Planning Commission Chair  
Charlie Baker, Chittenden County Regional Planning Commission  
VT Department of Housing and Community Development

FROM: Paul Conner, Director of Planning & Zoning

SUBJECT: Proposed Land Development Regulation Amendments LDR-22-09; Public Hearing

DATE: January 9, 2023

---

Enclosed please find a pair of proposed amendments to the City of South Burlington's Land Development Regulations, as well as a report from the Planning Commission, as required under Chapter 117. **The Planning Commission will hold a public hearing on these amendments beginning on Tuesday, January 10, 2023 at 7:00 pm, and to be continued on Tuesday, January 24, 2023 at 7 pm. The meetings will be held in person and via Zoom.**

### Participation options:

#### Tuesday, January 10, 2023:

- In Person: City Hall Auditorium, 180 Market Street
- Interactive Online: <https://us06web.zoom.us/j/86726932852>
- Telephone: 929 205 6099, Meeting ID: 867 2693 2852

#### Tuesday, January 24, 2023:

- In Person: City Hall Auditorium, 180 Market Street
- Interactive Online: <https://us06web.zoom.us/j/87367396807>
- Telephone: 929 205 6099, Meeting ID: 873 6739 6807

The proposed amendments are posted on the City's website, [www.sbvt.gov](http://www.sbvt.gov) .

Feedback on the draft amendments is welcome, either at the hearing, or in writing in advance of the hearing date. Should you have any questions, feel free contact the Department of Planning & Zoning.



**South Burlington Planning Commission  
Proposed Land Development Regulations  
Amendment & Adoption Report  
Planning Commission Public Hearing Tuesday, January 10, 2022, 7:00 PM**

In accordance with 24 V.S.A. §4441, the South Burlington Planning Commission has prepared the following report regarding the proposed amendments and adoption of the City's Land Development Regulations.

**Outline of the Proposed Overall Amendments**

The South Burlington Planning Commission will hold a public hearing on Tuesday, January 10, 2022 at 7:00 pm, in person and via electronic platform, to consider the following amendments to the South Burlington Land Development Regulations:

- A. LDR-22-09: Updates to Article 12 Environmental Standards, including, but not limited to:
- 1) Modification of the Class II wetlands buffer boundary in some residential areas
  - 2) Streamline administrative permitting process
  - 3) Remove permitted, human-made steep slopes from regulation as steep slopes

**Brief Description and Findings Concerning the Proposed Amendments**

The proposed amendments have been considered by the Planning Commission for their consistency with the text, goals, and objectives of the City of South Burlington's Comprehensive Plan, adopted February 1, 2016. For each of the amendments, the Commission has addressed the following as enumerated under 24 VSA 4441(c):

*"...The report shall provide a brief explanation of the proposed bylaw, amendment, or repeal and shall include a statement of purpose as required for notice under section 4444 of this title, and shall include findings regarding how the proposal:*

- (1) *Conforms with or furthers the goals and policies contained in the municipal plan, including the effect of the proposal on the availability of safe and affordable housing.*
- (2) *Is compatible with the proposed future land uses and densities of the municipal plan.*
- (3) *Carries out, as applicable, any specific proposals for any planned community facilities."*

LDR-22-09: Updates to Article 12 Environmental Standards, including, but not limited to:

- 1) Modification of the Class II wetlands buffer boundary in some residential areas
- 2) Streamline administrative permitting process
- 3) Remove permitted, human-made steep slopes from regulation as steep slopes

*Brief explanation of the proposed amendment:*

This amendment applies a modified buffer from Class II wetlands for lots existing as of November 10, 2021 that were approved for single-family and/or two-family dwellings. In effect, this applies the same standard as before the most recent update to the environmental standards in the LDRs to relatively small, residential properties. It recognizes that many residential neighborhoods in South Burlington were designed and constructed taking the previous 50-foot buffer into account and aligns with expectations of homeowners.

Administratively, it clarifies when Site Plan review is required, when administrative Site Plan Review is required, and when zoning permit review is required. It clarifies conflict between Article 13 and Article 12 regarding when administrative Site Plan review is available for stormwater management projects. It also requires administrative Site Plan review for certain wetland impacts in the City Center Form Based Code district.

This amendment also excludes permitted human-made slopes from the definitions of Steep Slopes and Very Steep Slopes and allows the DRB or Administrative Officer to waive review under Steep Slopes standards if the area of steep slopes are determined to be de minimis. It also exempts Environmental Restoration Projects, Shoreline Restoration Projects, and retaining walls in certain districts from steep slope review.

Findings Concerning the Proposed Amendments

- (1) Conforms with or furthers the goals and policies contained in the municipal plan, including the effect of the proposal on the availability of safe and affordable housing.*

These amendments are technical updates that correct issues that have become apparent after the adoption of new regulations in 2021. Generally, they correct unanticipated inconsistencies and administrative issues.

In addition, exempting Environmental Restoration Projects and Shoreline Restoration Projects from steep slopes review advances the environmental protection goals in our Comprehensive Plan.

Comprehensive Plan Goals, Objectives & Strategies:

- Goal: Green & Clean. Emphasizing sustainability for long-term vitality of a clean and green South Burlington.
- Sub-Goal. Keep unique features, and maintain or enhance the quality of life of existing neighborhoods.

- Objective 3. Foster the creation and retention of a housing stock that is balanced in size and target income level, is representative of the needs of households of central Chittenden County, and maintains an efficient use of land for use by future generations.
- Objective 9. Be a good partner with business in helping them locate in South Burlington or continue to grow here.
- Strategy 6. Promote the preservation of existing housing stock in residential neighborhoods, particularly the supply of affordable and moderately-priced homes.

*(2) Is compatible with the proposed future land uses and densities of the municipal plan.*

The proposed amendments do not affect future land uses and densities in the municipal plan.

*(3) Carries out, as applicable, any specific proposals for any planned community facilities.*

This proposed amendment does not relate directly to any planned community facilities.

## 12 ENVIRONMENTAL PROTECTION STANDARDS

12.01 General Protection Standards and Review Procedures

12.02 Restricted Infrastructure Encroachment

12.03 Steep Slopes

12.04 Habitat Block Overlay District

12.05 Habitat Connector Overlay District

12.06 Wetland Protection Standards and Review Procedures

12.07 River Corridor Overlay District

12.08 ~~Flood Hazard Area~~Floodplain Overlay District

### 12.01 General Protection Standards, Classifications and Review Procedures

**A. Purpose.** It is the purpose of this Article to implement, from a regulatory perspective, the Comprehensive Plan's goal of "emphasizing sustainability for long-term viability of a clean and green South Burlington" and objective to "promote conservation of identified important natural areas, open spaces, aquatic resources, air quality, arable land and other agricultural resources, historic sites and structures, and recreational assets" in balance with the overall goals and objectives of the Comprehensive Plan.

This Article establishes application requirements and development standards designed to avoid or minimize undue adverse effects on these natural resources. The natural resources regulated in this article may also be subject to specific subdivision or planned unit development standards. Where there is conflict between subdivision or planned unit development standards, and the standards in this article, the standard that imposes the greater restriction shall apply.

**B. Classification.** For the purposes of these Regulations, resources are grouped into Hazards, Level I and Level II Resources.

**Table 12-01 – Classification of Natural Resources**

	Location in Regulations	Initial Identification	Field Verification / HDA
<b>Hazards</b>			
Floodplain (1% and 0.2% B2), Floodway	12.08	FEMA FIRM	If Requested
River Corridor except intermittent streams	12.07	ANR Atlas	If requested
Class I, II Wetlands, Buffers	12.06	ANR Atlas	Required
Very Steep Slopes (25+%)	12.03	ANR Atlas	If impacted
<b>Level I Resources</b>			
Habitat Block Overlay District	12.04	Habitat Block and Connectors Overlay District Map	N/A unless seeking exchange per Section 12.04
Habitat Connector Overlay District	12.05	Habitat Blocks and Connectors Overlay District Map	N/A unless seeking modification per 12.05
<b>Level II Resources</b>			
Floodplain (0.2% Zone B1)	12.08	FEMA FIRM	If Impacted
Class III Wetlands, Buffers	12.06	ANR Atlas	If impacted
Steep Slopes (15 to 25%)	12.03	ANR Atlas	If impacted
River Corridor - Intermittent Streams	12.07	Site Mapping	If impacted

**C. Applicability of Standards.** All development must comply with the provisions of this Article, unless otherwise exempted, in order to prevent undue adverse effects on ecological resources, water quality and working lands, unless explicitly waived or amended in this section. ~~Exemptions include~~The following development is exempt from review under this section:

**(1) Construction of fences**

- a. (i) that enclose cleared areas, such as lawn areas surrounding a residence, provided the clearing occurred prior to November 10, 2021 or was approved by the DRB in accordance with this Article; or
- b. (ii) that are erected for standard agricultural purposes or,
- c. (iii) that are lower than 4 feet and that have at least 16 inches of clearance between the lowest horizontal part of the fence and the ground.

~~(1)d.~~ \_\_\_\_\_ In all cases, proposed fences must comply with section 13.17 (Fences) of these Regulations.

**(2) Exemptions ~~as~~ specified elsewhere in these Regulations.**

**D. Development Review Process.** All development that may encroach upon a natural resource regulated in Article 12 shall be subject to Site Plan Review by the Development Review Board (see Article 14). ~~However, if the encroachment is proposed as a part of a subdivision or Planned Unit Development application, the proposed encroachment shall be reviewed under those procedures and standards instead of Site Plan Review. Other exceptions include~~, except:

~~Applications involving development~~ (1) Subdivision or PUD. All applications also involving subdivision or Planned Unit Development application shall have any encroachment on an Article 12 natural resource reviewed under subdivision and/or Planned Unit Development review procedures and standards instead of Site Plan Review.

~~(1)~~ (2) Steep Slopes (Only. When alteration of Steep Slopes and/or Very Steep Slopes (regulated under Section 12.03) is the only encroachment on an Article 12 natural resource, the application shall be subject to administrative Site Plan Review (Section 14.04), unless the application is except applications for a single-household dwelling or a two-household dwelling, or associated an accessory structures, in which case the application structure to a single-household or two-household dwelling. Such applications shall be subject to zoning permit review by the Administrative Officer.

(3) City Center FBC. All applications involving development in the City Center Form Based Code District that may impact a Class II, or Class III wetland or wetland buffer regulated in Section 12.06 shall be subject to administrative Site Plan Review (Section 14.04).

(4) Stormwater. All applications that solely include development related to stormwater management (Section 13.05) shall be subject to administrative Site Plan Review (Section 14.04).

## 12.02 Restricted Infrastructure Encroachment

**A. Purpose.** The purpose of this section is to define specific types of “restricted infrastructure” that may be allowed to encroach upon a natural resource regulated in Article 12 and to define the standards that shall be met in order for an encroachment to be allowed.

**B. Types of Development.** Restricted Infrastructure Encroachments are limited to the types of development listed in this subsection:

- (1) Underground public utilities systems (e.g., water, wastewater, stormwater, electric, broadband, telephone).
- (2) Public sidewalks and recreation paths (including bridges and boardwalks) intended to connect parcels and neighborhoods, or provide recreational opportunities within areas containing Hazards, Level I Resources, or Level II Resources.
- (3) Public and Private Street crossings designed to cross Hazards, Level I Resources, and Level II Resources (e.g., designed to minimize disturbance of the subject natural resources).
- (4) Public and Private Driveway crossings designed to cross Hazards, Level I Resources, and Level II Resources (e.g., designed to minimize disturbance of the subject natural resources).
- (5) Stormwater Facilities specifically identified as a part of an Environmental Restoration Project.

**C. Qualifying Criteria.** Encroachment into a natural resource may only be allowed if there is a finding that the proposed Restricted Infrastructure Encroachment meets one or more of the following qualifying criteria:

- (1) Is necessary to repair impacts from a Federally declared disaster, mitigate the future impacts of hazards, and/or necessary for the protection of the public health, safety and welfare;
- (2) Is for a functionally dependent purpose or use;
- (3) Is a part of an Environmental Restoration Project;
- (4) Is on the Official Map;
- (5) Is for purposes of crossing a natural resource area to gain access to land on the opposite side of the area;  
or
- (6) For purposes of providing safe access in accordance with City roadway and connectivity standards to an approved use.

**D. Development Review Process.** Applications involving Restricted Infrastructure Encroachments shall be subject to the development review process outlined in Section 12.01(D).

**E. Standards.** All Restricted Infrastructure Encroachments shall meet the following standards:

- (1) The encroachment shall not have an undue adverse effect on the subject natural resource and shall meet all specific, applicable standards for Restricted Infrastructure Encroachments into River Corridors (Section 12.07), Wetlands Buffers (Section 12.06), and Habitat Blocks (Section 12.04).
- (2) **Street and Driveway Crossings Not On Official Map.** Restricted Infrastructure Encroachment projects involving streets and/or driveways not shown on the City Official Map that cross River Corridors (Section 12.07), Wetlands Buffers (Section 12.06), and/or Habitat Blocks (Section 12.04) may be allowed only upon a determination by the Development Review Board that all resource-specific standards and the following standards have been met:
  - (a) There is no feasible alternative for providing safe access to the developable portion of the property;
  - (b) Alternative accesses through adjacent properties have been considered and, where fewer or no constraints exist, property owners have been contacted to discuss locating the street or driveway on the adjacent property;
  - (c) The requirements of the applicable restriction will cause unnecessary or extraordinary economic hardship;
  - (d) The area served by the encroachment represents more than thirty (30) percent of the total developable land on the parcel; and,
  - (e) The encroachment represents the least possible impact to the specific resource (e.g., location with least adverse impact, designed to minimize disturbance of the resource).

### 12.03 Steep Slopes

**A. Purpose.** It is the purpose of this Section to protect the City's areas of steep and very steep slopes, as mapped and delineated for this purpose, in order to:

- (1) Prevent erosion and avoid stream sedimentation that may cause undue adverse effects on water quality.
- (2) Prevent hazards to life and property resulting from slope instability or failure, including rock falls, slides, slumps and other downslope movements of materials or structures.
- (3) Maintain and re-establish vegetation on steep slopes to stabilize soils.
- (4) Ensure that development on steep slopes is constructed and maintained in conformance with best management practices for construction, stormwater management and erosion control.

**B. Applicability.** All development is subject to the standards below in this section where steep slopes or very steep slopes are present. Human-made steep slopes or very steep slopes previously permitted by the City of South Burlington, as shown on an approved site plan, or other permit documentation are excepted from the definition of "steep slope" or "very steep slope" under 12.03E.

**C. Application Submittal Requirements.** Submittal of a preliminary and/or complete Site Conditions Map (as applicable to the stage of application) pursuant to Appendix E. An analysis of slope stability prepared by a licensed engineer shall also be submitted to ensure that no erosion hazards are created that would have an



undue adverse effect on surface waters, wetlands, areas of special flood hazards, or downstream facilities, and any recommended mitigation measures

**D. Review Process.** Per Section 12.01(D), ~~applications involving development on when alteration of Steep Slopes or Very Steep Slopes or Steep Slopes (regulated under Section 12.03) is the only encroachment on an Article 12 natural resource, the application~~ shall be reviewed via administrative Site Plan Review (Section 14.09), unless the application is for a single-household dwelling or two-household dwelling, in which case the application may be approved via a zoning permit reviewed by the Administrative Officer. ~~The DRB or Administrative Officer, as applicable, shall have discretion to waive review under Subsection 12.03 if it determines an area of Very Steep Slopes or Steep Slopes to be de minimis due to being small in size and isolated from other Very Steep Slopes or Steep Slopes.~~

**E. Standards.**

**(1) Very Steep Slope Standards.**

a. ~~A “very steep slope” is a slope greater than 25%, excepting human-made slopes previously permitted by the City of South Burlington, as shown on an approved site plan, or other approved permit documentation.~~

~~(1)b.~~ Development other than Restricted Infrastructure Encroachment is prohibited on very steep slopes ~~greater than 25%.~~

**(2) Steep Slope Standards.**

a. ~~A “steep slope” is greater than or equal to 15% and less than 25%, excepting human-made slopes previously permitted by the City of South Burlington, as shown on an approved site plan, or other approved permit documentation.~~

b. ~~All development must be designed to avoid undue adverse effects on slopes between 15% and 25%. Clearing steep slopes which may include, but are not limited to, undue clearing of vegetation, excavation, and/or filling on steep slopes shall be minimized.~~

~~(2)c.~~ All recommendations of the slope stability analysis submitted with the application shall be required by the DRB or Administrative Officer.

**F. Exemptions.**

~~(1) Removal of Earth Products. Slopes exceeding 15 percent that are Steep slopes and very steep slopes created by an approved earth products removal use shall be exempt from the regulations of this subsection.~~

~~(2) Environmental Restoration Projects. Environmental Restoration Projects are exempt from the regulations of Article 12.~~

~~(3) Shoreline Restoration Projects. Projects with the primary purpose of restoring the shoreline of a lake, river, or stream through installation of vegetation and other methods that do not include the installation of structures (e.g. retaining walls), are exempt from the regulations of Article 12.~~

~~(1)(4) Retaining Walls. Projects that include the installation of new retaining walls, or replacement of existing retaining walls, located within the Residential 1-L District, Lakeshore Neighborhood, or Queen City Park are exempt from Section 12.03. All other regulations shall still apply.~~

**12.04 Habitat Block Overlay District**

**A. Purpose.** With the main goals of identifying habitat resources that meet the needs of a wide variety of wildlife species and provide opportunities for some species to access several habitat areas, the City engaged

a consultant to conduct a City-wide habitat assessment. The “City of South Burlington Habitat Block Assessment & Ranking 2020” prepared by Arrowwood Environmental, LLC, locates and ranks certain contiguous forested areas and adjacent unmanaged shrubby areas of old field, young forest and unmanaged wetlands. Based on the information in that report, the City has designated certain areas permanently as Habitat Blocks. It is the purpose of the Habitat Block Overlay District standards to avoid undue adverse effects from development on these resources, promote the natural succession of vegetated areas of native vegetation in order to support wildlife habitat and movement, promote carbon sequestration, filter air, and increase infiltration and base flows in the City’s streams and Lake Champlain.

**B. Applicability.** The requirements of this Section apply to all areas indicated as “Habitat Blocks” on the Habitat Block and Habitat Connector Overlay Districts Map, except as follows:

- (1) On lots less than one (1) acre in size existing as of November 10, 2021;
- (2) On land located within a 50-foot horizontal distance of a principal building existing on the same parcel as of the effective date of these regulations;
- (3) On land authorized by the Development Review Board to be removed from or added to a Habitat Block pursuant to the modification options of this section or as part of a Conservation Planned Unit Development.

**C. Application Submittal Requirements.** Submittal of a preliminary and/or complete Site Conditions Map (as applicable to the stage of application) pursuant to Appendix E. Where an applicant elects to perform a Habitat Disturbance Assessment, the submittal requirements of Section 12.04J shall apply.

**D. Modification of Habitat Block.** An applicant may request approval from the Development Review Board to modify a Habitat Block in any of the following manners. An applicant may select any one of the three modification options below. A development application may not include more than one option for any application.

Land located within the SEQ-NRP zoning sub-district, Hazards, or Level I Resources, previously approved as open space or conserved land, subject to a deed restriction prohibiting development, subject to a conservation or density reduction easement, or owned by the City of South Burlington or the Winooski Valley Parks District and designated as a park or conservation parcel shall not be eligible for any of the three options to modify a Habitat Block.

- (1) **Minor Habitat Block Boundary Adjustment.** An applicant may apply to modify the boundary of a Habitat Block by up to fifty (50) feet in any direction to account for site-specific conditions, upon written request by the applicant as part of the requisite application. Any proposed reduction in Habitat Block area must be offset with an equal addition elsewhere within the same subject parcel or Planned Unit Development. The land to be protected through the modification of the Habitat Block boundary must be contiguous to the Habitat Block. In no case shall the Development Review Board approve a net reduction of the area of a Habitat Block.
- (2) **Small On-Site Habitat Block Exchange.** An applicant may apply to exchange a portion of a Habitat Block not to exceed two (2) acres or ten (10) percent of the application’s total land area, whichever is less, for an equal amount of land within the same Planned Unit Development or Site Plan upon written request, without requiring a Habitat and Disturbance Assessment. Such land exchange must not include Core Habitat Block Areas and shall not eliminate existing Habitat Connectors. The land to be protected through the exchange may be located separate from the Habitat Block. To approve a small on-site habitat block exchange, the Development Review Board shall require the applicant to:

- (a) Retain a similar or greater quality and maturity of vegetation within the proposed areas for exchange; and
- (b) Prioritize the retention of forest stands that include trees measuring 9 inches diameter at breast height (dbh) within the exchange area.

**(3) Larger Area Habitat Block Exchange.** An applicant may apply to exchange a portion of a Habitat Block for the addition of an equal amount of contiguous land within the same Habitat Block upon written request, and pursuant to the standards of this Section. The exchange of land within the same Habitat Block may occur within one parcel or on separate parcels.

**(a) Supplemental submittal requirements.**

- (i) Indicate, on the Master Plan and all subsequent plans, all proposed alterations to the Habitat Block.
- (ii) Submit, as part of the preliminary plat application, a Habitat and Disturbance Assessment (HDA) pursuant to Section 12.04(J) and a written assessment of compliance with the standards contained within this subsection.

**(b) Supplemental Standards of Review.** The Development Review Board may approve a re-designation of a portion of a Habitat Block if it finds that all of the criteria below are met:

- (i) The HDA demonstrates that the alteration will not result in a reduction in the Habitat Block's function as a Significant Wildlife Habitat;
- (ii) Wildlife movement and connectivity between Habitat Blocks will be retained; and,
- (iii) Development and infrastructure proposed to be located adjacent to the Habitat Block must be designed to have no undue adverse effects on habitat functions; and
- (iv) The land that will be added to the Habitat Block is contiguous to the land that will not be removed from the Habitat Block, such that the modified Habitat Block is a continuous whole that is not interrupted or separated by roadways, railways, or other impeding infrastructure.

**(c) Exchanged Land.** Land to be added to the Habitat Block pursuant to this subsection must be identified on the subdivision plat that is recorded, and in associated legal documents, for the purposes of subsection 12.04(I), below.

- (i) Any land proposed to be added shall be accompanied by a restoration plan, prepared by a landscape architect, professional wildlife biologist, or equivalent, that will result in the land functioning as a Significant Wildlife Habitat within a period of ten (10) years and being classified as transitional forest / forest by a land use / land cover assessment at that time.

**E. Substantially-Habitat Block-covered lots.** A lot containing a combination of Hazards and Level I Resources exceeding seventy (70) percent of the total lot area is eligible for relief from Habitat Block standards in the following manners:

- (1)** As a Conservation Planned Unit Development, subject to the standards of Section 15.C.05; and,
- (2)** The applicant is entitled to re-designate a portion of the Habitat Block, to allow for thirty (30) percent of the total parcel area as Buildable Area. The applicant shall provide a proposed redesignation to the Development Review Board with land designated as, and added to, the parcel's Buildable Area in the following order:
  - First: Land not a Hazard or Level I Resource;

- Second: Land that is not characterized by a preponderance of mature trees;
  - Third: Land within Habitat Blocks, excluding Core Habitat Block Areas or areas which would sever a Habitat Connector.
  - Fourth: Land within Habitat Blocks, avoiding Core Habitat Block Areas to the greatest extent possible;
- (a) **Calculation:** Land shall be selected from first to fourth. If all applicable land on the lot from one category is designated as Buildable Area, and the allotment of thirty (30) percent of the total parcel area has not been reached, then land from the next category shall be selected.
- (b) **Special Circumstances:** Where the DRB finds that designation of land as Buildable Area pursuant to the priority order above is in conflict with the purposes of this section, or where it finds that strict adherence to the priority order does not allow for a unified PUD consistent with the purposes or intent of these regulations, it may approve modifications to the land selected. Any such modifications shall be minimized in terms of land area and changes to, or reordering, the priority order.
- (c) Any land excluded from Habitat Blocks regulated under this subsection and redesignated as Buildable Area shall remain subject to all other provisions of these Regulations.

**F. Standards for Habitat Block Protection.**

- 1) General standards.** Except as specifically exempted pursuant to Subsections 12.04(G)(1) and (2) below, approved by the DRB pursuant to subsection 12.04(G)(3) below, or modified in accordance with Section 12.04(D) above, all lands within a Habitat Block must be left in an undisturbed, naturally vegetated condition. Specifically:
- a) The clearing of trees and understory vegetation is prohibited except as specified in this section.
  - b) The creation of new lawn areas is prohibited.
  - c) Snow storage areas are prohibited.
  - d) Habitat Blocks must be clearly indicated on all plans and demarked as such. Any building envelopes shall not contain any land located within Habitat Blocks.
  - e) Supplemental planting and landscaping with appropriate species of vegetation to achieve the objectives of this Section is permitted.

**G. Exempted Uses and Activities.** The following uses and activities are exempt from review under this section:

- (1)** Establishment and maintenance of unpaved, non-motorized trails not to exceed ten (10) feet in width, or their width prior to adoption of these regulations, whichever is greater;
- (2)** Removal of invasive species, removal of diseased vegetation, and removal of dead or dying trees posing an imminent threat to buildings or infrastructure; and,
- (3)** Uses and activities enumerated in Section 12.01(C).

Nothing in this subsection shall be construed to modify the boundary of a Habitat Block as shown on the Habitat Block and Habitat Connector Overlay Districts Map.

**H. Development within Habitat Blocks.** The encroachment of new development activities into, and the clearing of vegetation, establishment of lawn, or other similar activities in Habitat Blocks is prohibited.

However, the DRB may allow the following types of development within a Habitat Block pursuant to the standards contained herein:

- (1) Restricted Infrastructure Encroachment**, pursuant to Section 12.02 and the following supplemental standards:
  - a) The facility shall be strictly limited to the minimum width necessary to function for its intended purposes;
  - b) The clearing of vegetation adjacent to the facility shall be strictly limited to the minimum width necessary for the facility to function for its intended purposes (street tree requirements shall not apply in these areas). Street lighting shall be prohibited in these areas except as necessary to meet State or Federal law; and,
  - c) Appropriate measures shall be taken to promote safe wildlife passage, including the reduction or elimination of curbs, reduced speed limits, and/or signage altering users, and underpasses or culverts.
- (2) Outdoor recreation uses**, provided any building, parking and/or driveways appurtenant to such use are located outside the Habitat Block.
  - a) Within a public park, structures not exceeding 500 square feet gross floor area are permitted. All such structures must be consistent with the adopted management plan for the park, if one exists.
- (3) Research and educational activities**, provided any building or structure (including parking and driveways) appurtenant to such use is located outside the Habitat Block.
  - a) Research and educational structures not exceeding 500 square feet gross floor area, such as seating areas made of natural materials, storage sheds, or climbing structures, may be allowed within a Habitat Block.

**I. Habitat Block and Habitat Connector Overlay Districts Map.** The approval of a modification of a Habitat Block pursuant to Section 12.04D, above, or of the exclusion of an area of land from a Habitat Block pursuant to Section 12.04E, above, shall, without further action, revise the Habitat Block and Habitat Connector Overlay Districts Map accordingly. After the effective date of these regulations, the Habitat Block and Habitat Connector Overlay Districts Map may be revised only once for each Substantially-Habitat Block-Covered lot from which a portion of the land within the Habitat Block has been excluded.

**J. Habitat and Disturbance Assessment (HDA)**

- (1) Purpose.** The Habitat and Disturbance Assessment (HDA) is a tool to inventory and quantify significant wildlife habitat, and the existence of rare, threatened and endangered species (RTEs), within subject properties with Habitat Blocks and Habitat Connectors (Section 12.04 and Section 12.05) where an applicant is seeking to relocate and/or redesignate a portion of the Habitat Block or Habitat Connector.
- (2) HDA Content Requirements.** Where an HDA is required by these regulations, the applicant shall contract with a qualified wildlife biologist or ecologist to prepare the HDA. The HDA prepared for the Development Review Board shall include the following information:
  - (a) Site Conditions Map including all Habitat Blocks and Habitat Connectors on or within 200 feet of the project site.
  - (b) An inventory of existing (pre-development) wildlife habitat found on the site, including the presence of rare, threatened, and/or endangered species and significant wildlife habitat, and an inventory of the specific habitat types found on the parcel and their relative importance to the various wildlife species that rely on that habitat for one or more life-cycle function;

- (c) An assessment of the relationship of the habitat found on the site relative to other significant wildlife habitat present in the City (e.g., does habitat found on the parcel provide for connectivity between mapped habitat blocks; is the parcel located contiguous to other significant wildlife habitat, or part of a habitat block);
- (d) Identification of the distance of all proposed development activities (as permitted), including clearing, driveways and infrastructure, and areas of disturbance, from the significant wildlife habitat and, if significant wildlife habitat is proposed to be disturbed, the total area of disturbance and the total area of the remaining (undisturbed) habitat;
- (e) An assessment of the likely impact of the proposed development, including associated activities (e.g., introduction of domestic pets, operation of vehicles and equipment, exterior lighting, introduction of non-native species for landscaping) on the ecological function of the significant wildlife habitat found on the site. This shall include an assessment of whether travel between Core Habitat Block Areas will be disrupted; and
- (f) An assessment of the anticipated functionality of the Habitat Block with proposed mitigation measures and a statement identifying specific mitigation measures taken to avoid or minimize the proposed development's impact on the habitat, including buffers of or from habitat for specific identified species, possible replacement or provisions for substitute habitats that serve a comparable ecological function to the impacted habitat, and/or physical design elements to incorporate into the project.

### **12.05 Habitat Connector Overlay District**

**A. Purpose.** It is the purpose of this Section to maintain the functionality of identified Habitat Connectors, allowing species to travel between identified Habitat Blocks, wetland areas, water bodies, and other natural resources within and adjacent to the City.

**B. Applicability.** The requirements of this Section apply to all areas indicated as "Habitat Connectors" on the Habitat Block and Habitat Connector Overlay Districts Map, except as follows:

- (1) Lots of less than one (1) acre existing as of the effective date of these Regulations.
- (2) Land located within 50 feet horizontal distance of a principal building existing on the same parcel as of the effective date of these regulations.

**C. Standards for Protection of Habitat Connectors.**

- (1) In the locations where a Habitat Connector is indicated on the Habitat Block and Habitat Connector Overlay Districts Map, all lands within a 150-foot-wide area shall be left in an undisturbed, naturally vegetated condition.
- (2) Hazards or other protected natural resources regulated in Article 12 contiguous to a Habitat Connector may be used to count towards the required 150-foot width of the Habitat Connector.
- (3) Habitat Connectors shall be subject to the provisions of 12.04(F) Habitat Blocks Standards.
- (4) Relocation of Mapped Habitat Connector. An applicant may apply to relocate a Habitat Connector from its mapped location on the Habitat Block and Habitat Connector Overlay Districts Map but must connect to Habitat Connectors or Habitat Blocks on adjacent parcels. Any relocated portion shall be

accompanied by a restoration plan, prepared by a qualified consultant (e.g., landscape architect, professional wildlife biologist or equivalent). The restoration plan must include a robust planting plan of native tree and shrub species, specific actions to minimize disturbance to any existing vegetation supporting a habitat function, and a maintenance plan to ensure its growth. The restoration plan must design the relocated Habitat Connector to support the movement of mammal species such as fisher, bobcat, river otter, mink and coyote within a period of ten (10) years.

- (5) Restoration of Habitat Connector. The DRB shall require restoration of a Habitat Connector on parcels where development is proposed and pre-existing conditions consist of Habitat Connectors that are less than 150 feet in width along the entire length of the Habitat Connector. Restoration must include a robust planting plan of native tree and shrub species and specific actions to minimize disturbance to any existing vegetation supporting a habitat function within areas of the Habitat Connector less than 150 feet wide. The applicant may request, in writing, to waive this requirement. The DRB may grant a waiver only if restoration of the Habitat Connector is not possible due the placement of pre-existing structures on the subject parcel.

## 12.06 Wetland Protection Standards

**A. Purpose.** It is the purpose of this Section to protect the City's wetland resources in order to protect wetland functions and values related to surface and ground water protection, stormwater treatment, wildlife habitat, and flood control. The City intends to strictly protect Class I wetlands, Class II wetlands, and their respective buffers via the standards of this section. The City also intends to provide protection that offers limited flexibility for larger class III wetlands (over 5,000 square feet in size) and their respective buffers, and for Class II wetlands and their respective buffers in specific identified areas of the City.

**B. Applicability.** All development in the City of South Burlington shall comply with the requirements of this section. The requirements of this Section will apply to all lands described as follows, collectively referred to as Wetlands Areas and Related Buffers:

### (1) Class I Wetlands and Related Buffers.

~~(a) In all zoning districts, Class I wetlands and their buffer areas are subject to the provisions of this section.~~

~~(a)(b) In all City Center Form-Based Code, Commercial, Industrial and Airport, and Other (Municipal only) zoning districts, as established (defined in Section 3.01 of these Regulations, all), a Class I wetlands, and their related buffer areas, area is measured one hundred (100) feet in horizontal distance from the boundary of the wetland, are subject to the provisions of this section Class I wetland.~~

~~(b)(c) Residential Districts and the Park and Recreation Districts. In all Residential and Other (except Municipal, as enumerated in Subsection B(1)(a)) zoning districts, as established in Section 3.01, all a Class I wetlands, and their related buffer areas, is measured two hundred (200) feet in horizontal distance from the boundary of the wetland, are subject to the provisions of this section Class I wetland.~~

### (2) Class II Wetlands and Related Buffers.

~~(a) In all zoning districts, Class II wetlands and their buffer areas are subject to the provisions of this section.~~

~~(a)(b) In all City Center Form-Based Code, Commercial, Industrial and Airport, and Other (Municipal only) zoning districts, as established (defined in Section 3.01 of these Regulations, all), a Class II~~

wetlands, ~~and their related~~ buffer areas, area is measured fifty (50) feet in horizontal distance from the boundary of the Class II wetland, ~~are subject to the provisions of this section.~~

(c) In all Residential and Other (except Municipal, ~~as enumerated in Subsection B(2)(a))~~ zoning districts, as established in Section 3.01, all Class II wetlands, ~~and their related~~ buffer areas, area is measured one hundred (100) feet in horizontal distance from the boundary of the Class II wetland, ~~are subject to~~ except as under (d) below.

~~(b)~~(d) For lots less than 0.5 acres existing as of November 10, 2021 approved for or containing a single-family or two-family dwelling with a lot line that encroaches into the provisions of this section one hundred (100) foot buffer under (c) above, the lot line shall be considered the edge of the Class II wetlands buffer area.

**(3) Class III Wetlands.** All Class III wetland areas 5,000 square feet or larger in size, and their related buffer areas, measured fifty (50) feet in horizontal distance from the boundary of the wetland, are subject to the provisions of this section. Class III wetlands less than 5,000 square feet in size are not regulated by the City.

**C. Application Submittal Requirements.** Submittal of a preliminary and/or complete Site Conditions Map (as applicable to the stage of application) pursuant to Appendix E.

- (1)** Per Section 17.08, the DRB may require independent technical review of any field delineation and wetlands report.
- (2)** The applicant's application may include a wetlands delineation approved by the Vermont Agency of Natural Resources as a part of the State Wetlands Permit. The DRB may defer to this delineation in their review of the application instead of requiring an additional or separate delineation.

**D. Standards for Wetlands Protection.**

**(1) Class I and Class II Wetlands.** Development is generally prohibited within Class I wetlands, Class II wetlands, and their associated buffers. All lands within a Class I wetlands, Class II wetlands, and their associated buffers, shall be left in an undisturbed, naturally vegetated condition. However, an applicant may seek approval for a Restricted Infrastructure Encroachment under this section or to modify this standard per the regulations in Section 12.06(F).

**(2) Class III Wetlands.** Development in a Class III wetland (meeting 5,000 square foot threshold), and associated buffer within all zoning districts, is generally prohibited and shall be left in an undisturbed, naturally vegetated condition. The following activities are permissible, however:

(a) An applicant may seek approval for a Restricted Infrastructure Encroachment under this section or to modify this standard where allowable per the regulations in Section 12.06(F).

(i) Approved stormwater management systems that do not meet the definition of a Restricted Infrastructure Encroachment may incorporate a Class III wetland and its related buffer.

(b) Incidental Impacts. Temporary impacts to a Class III wetland buffer (for wetlands that meeting the 5,000 s.f. threshold) that are incidental to an approved development project are allowed. They are not required to meet the standards in this Section but must be shown on the applicant's plans. Temporarily impacted Class III wetland buffers shall be returned to their pre-impact state prior to completion of the project.

(c) Underground Utilities. Temporary impacts to a Class III wetland (meeting the 5,000 s.f. threshold) or its buffer for the purpose of installing underground utilities are not required to meet the standards



in this Section but must be shown on the applicant's plans. Temporarily impacted Class III wetland and their related buffers shall be returned to their pre-impact state prior to completion of the project.

**(3) Landscaping and Fencing.** Landscaping and/or fencing shall be installed along the outside perimeter of the wetlands buffer to clearly identify and protect wetlands buffer. The DRB may waive this requirement, if petitioned by the applicant, if there is existing forest and/or landscaping along the border of wetland buffer or other clear, existing demarcation. The design and installation of any such landscaping or fencing must accommodate wildlife passage.

**(4) Pre-existing gardens, landscaped areas/lawns, structures and impervious surfaces.**

(a) Gardens, landscaped areas/lawns, structures, and impervious surfaces located within a wetlands buffer that were legally in existence as of the effective date of these regulations shall be considered non-conforming development. Non-conforming development within a wetlands buffer, may not be expanded.

**(5) Restricted Infrastructure Encroachment.** Restricted Infrastructure Encroachment may be allowed within Class I, Class II, or Class III wetlands, and their associated buffers, without a waiver or modification provided that the applicant demonstrates the project's compliance with Section 12.02 and the following supplemental standards:

(a) Roadway paved surfaces shall be no wider than necessary for the intended functional road classification for the roadway and in no case shall the roadway paved surfaces be wider than 24 feet; and,

(b) Roads that bifurcate a wetland or wetland buffer shall propose appropriate mitigation, such as reduction or elimination of curbing and installation of cross culverts, to enable wildlife passage.

**E. Exemptions.** The following activities are not required to meet the standards in this section and do not require a local permit:

**(1) Maintenance of pre-existing gardens, landscaped areas/lawns, structures and impervious surfaces.** Maintenance of pre-existing gardens, landscaped areas/lawns, structures and impervious surfaces located within a wetlands buffer, and that were legally in existence as of the effective date of these regulations, does not require a permit.

**(2) Invasive Species, Nuisance Plants, and Noxious Weeds Removal.** Hand removal (e.g. non-motorized or non-mechanized) of invasive species, nuisance plants, and noxious weeds, as identified by the Vermont Agency of Agriculture, Food & Markets, within Class I, Class II, and Class III wetlands, and their associated buffers, is exempt from these regulations.

**(3) Trails.** Establishment and maintenance of unpaved, non-motorized trails, and associate puncheons and boardwalks, not to exceed ten (10) feet in width located within the buffer area of a Class I, Class II or Class III wetland. All trails located within this buffer area should be constructed to meet the best practices outlined in the Recreational Trail Building Guidance document developed by the Vermont Agency of Natural Resources.

**F. Modifications.**

**(1) Types of Development.** An applicant may request a modification, in writing, from the rules of this section for any development in the following areas only:

- (a) Development in a Class II wetland and associated buffer within the Form-Based Code Zoning Districts.
- (b) Re-development of a pre-existing garden, landscaped area/lawn, public infrastructure, structure, and impervious surface within a Class II wetland buffer in any zoning district, provided the ~~relocated~~re-developed area is of equal or smaller size.
- (c) Installation of low-impact development stormwater practices consistent with wetland functions and plantings with a Class II or Class III wetland buffer.
- (d) Development in a Class III wetland exceeding 5,000 square feet in area and associated buffer within all zoning districts.

**(2) Modification Review Process.** Modification requests shall be reviewed as follows:

- (a) In the City Center Form-Based Code District, the Zoning Administrator shall have the authority to review and approve all modification applications as a part of an administrative Site Plan application.
- (b) In all other zoning districts, the Development Review Board shall have the authority to review and approve all modification applications.

**(2)(3) Modification Standards.** The Development Review Board or Zoning Administrator, as applicable, may grant a modification from the rules of this Section only if a modification application meets all of the following standards:

- (a) The modification shall be the minimum required to accommodate the proposed development;
- (b) The proposed development will not have an undue adverse effect on the planned character of the area, as defined by the purpose statement of the zoning district within which the project is located, or on public health and safety;
- (c) The proposed development will not have an undue adverse effect on the ability of the property to adequately treat stormwater from the site; and,
- (d) The proposed development will not have an undue adverse effect upon specific wetland functions and values identified in the field delineation.

### **12.07 River Corridor Overlay District (RCO)**

**A. Purpose.** It is the purpose of the River Corridor Overlay District to:

- (1)** Establish protection of the river corridor to provide rivers and streams with the lateral space necessary to maintain or reestablish floodplain access and minimize erosion hazards through natural, physical processes;
- (2)** Allow for wise use of property within river corridors that minimizes potential damage to existing structures and development from flood-related erosion;
- (3)** Discourage encroachments in undeveloped river corridors;
- (4)** Protect and improve the quality of surface waters and streams within the City of South Burlington;
- (5)** Provide sufficient space for wildlife habitat along rivers and streams; and,
- (6)** Provide allowances for infill and redevelopment of designated centers that are within river corridors.

**B. Authority.** In accordance with 24 V.S.A. Chapter 117, §4424, and §4414, there is hereby established a bylaw for areas at risk of erosion damage in the City of South Burlington Vermont. These regulations shall apply to development in all areas in the City of South Burlington identified as within the River Corridor Overlay District designated in Section 3.01(B).

**C. Comprehensive Plan.** These regulations hereby implement the relevant portions of the City of South Burlington's adopted Comprehensive Plan and are in accord with the policies set forth therein.

**D. Warning of Disclaimer of Liability.** This bylaw does not imply that land outside of the areas covered by this overlay district will be free from erosion damages. This regulation shall not create liability on the part of the City of South Burlington, or any municipal official or employee thereof, for any erosion damages that result from reliance on this regulation, or any administrative decision lawfully made hereunder.

**E. Precedence of Bylaw.** The provisions of this River Corridor Overlay District shall not in any way impair or remove the necessity of compliance with any other local, state, or federal laws or regulations. Where this regulation imposes a greater restriction, the provisions in these regulations shall take precedence.

**F. District General Provisions.**

**(1) Establishment of RCO District.** The RCO is an overlay district. All other requirements of the underlying district, or another overlay district such as the Flood Hazard Overlay District, shall apply in addition to the provisions herein, unless it is otherwise so indicated. If there is a conflict with another such district, the stricter provision shall apply.

**(2) RCO District Boundaries.** The boundaries of the RCO District are as follows:

- (a) All River Corridors as published by the Vermont Agency of Natural Resources (including the Statewide River Corridors and refinements to that data based on field-based assessments which are hereby adopted by reference).
- (b) All land within one hundred (100) feet horizontal of the top of bank or top of slope, whichever is applicable given the stream's fluvial geomorphology, along the reaches of the main stem of Potash

Brook where a mapped River Corridor has not been developed by the Vermont Agency of Natural Resources.

(c) All land within fifty (50) feet horizontal distance from the top of bank or top of slope, whichever is applicable given the stream's fluvial geomorphology, of all other perennial rivers and streams.

(d) All land within ten (10) feet horizontal distance from the top of the bank or top of slope of a natural intermittent stream, whichever is applicable given the stream's fluvial geomorphology.

(e) Requests to update a River Corridor map shall be in accordance with the procedure laid out in the ANR Flood Hazard Area and River Corridor Protection Procedure.

**(3) RCO District – Classification.** River Corridors shall be classified in the following manner per Section 12.01:

a. **River Corridors on Intermittent Streams.** River Corridors on intermittent streams are Level II Resources.

b. **All Other River Corridors.** River Corridors on all other streams are Hazards.

**(4) Jurisdictional Determination and Interpretation.** The information presented on any maps, or contained in any studies, adopted by reference, is presumed accurate. If uncertainty exists with respect to the boundaries of the RCO the location of the boundary on the property shall be determined by the Administrative Officer (AO). If the applicant disagrees with the determination made by the AO or the river corridor as mapped, the applicant has the option to either:

(a) Hire a licensed land surveyor or registered professional engineer to stake out the RCO boundary on the property; or

(b) Request a letter of determination from ANR which shall constitute proof of the location of the river corridor boundary. In support of a letter of determination request, applicants must provide ANR a description of the physical characteristics that bring the river corridor delineation into question (e.g. the presence of bedrock or other features that may confine lateral river channel adjustment. When ANR receives a request for a letter of determination, ANR evaluates the site and existing data to see if a change to the river corridor delineation is justified, necessitating a river corridor map update. An ANR letter of determination will either confirm the existing river corridor delineation or will result in an update to the river corridor delineation for the area in question. If a map update is justified, an updated map will be provided with the letter of determination.

#### **G. Prohibited, Exempted, and Permitted Development in River Corridors**

**(1) Prohibited Development in the RCO District.** The following types of development are prohibited in the RCO District:

(a) All development, including new structures, structure additions, fill, accessory dwelling units, and any other development that is not expressly listed as at least one of the Exempted Activities or Permitted Development as described below;

(b) Creation of new lawn or landscaped areas; and

(c) Snow storage areas.

**(2) Exempted Activities.** The following activities do not require a permit under this section of the bylaw:

- (a) The removal of a building or other improvement in whole or in part, so long as the ground elevations under and adjacent to the removed structure remain unchanged.
  - (b) Any changes, maintenance, repairs, or renovations to a structure that will not result in a change to the footprint of the structure or a change in use.
  - (c) Maintenance of existing sidewalks, roads, parking areas, or stormwater drainage; this does not include expansions.
  - (d) Maintenance of existing bridges, culverts, and channel stabilization activities; this does not include expansions.
  - (e) Construction or repair of stream crossing structures (bridges and culverts), associated transportation and utility networks (new transportation or utility development that runs parallel to the river is not exempt and shall meet the Development Standards in Section 12.07(l) below), dams, dry hydrants, and other functionally dependent uses that must be placed in or over rivers and streams that are not located in a flood hazard area and that have coverage under a Stream Alteration Permit, if required, under 10 V.S.A. Chapter 41 and the rules adopted thereunder.
  - (f) Activities exempt from municipal regulation and requiring 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 or 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.
    - (iv) Public utility power generating plants and transmission facilities regulated under 30 V.S.A. § 248.
    - (v) Telecommunications facilities regulated under 30 V.S.A. § 248a.
  - (g) Planting projects which do not include any construction or grading activities in accordance with 24 V.S.A. § 4424(c).
  - (h) Subdivision of land that does not involve or authorize development.
  - (i) Establishment and maintenance of unpaved, non-motorized trails and puncheons not to exceed ten (10) feet in width.
  - (j) **Maintenance of Existing Gardens, Lawns, Driveways, and other public infrastructure.** Maintenance of existing gardens, landscaped areas/lawns, driveways and other public infrastructure within the River Corridor in existence as of the effective date of these regulations.
  - (k) **Invasive Species, Nuisance Plants, and Noxious Weeds Removal.** The removal of invasive species, nuisance plants, and noxious weeds, as identified by the Vermont Agency of Agriculture, Food & Markets, within the River Corridor is an exempt from these regulations.
- (3) Permitted Development.** The following development activities in the RCO District are permissible upon approval, provided they meet all other requirements of the LDRs and the standards of this section.

- (a) Encroachments necessary to repair damage from a Federally-declared disaster and necessary for the protection of the public health, safety and welfare.
- (b) Restricted Infrastructure Encroachment, upon demonstration of compliance with Section 12.02 and the standards of this section.
- (c) Replacement of on-site septic systems.

#### **H. Development Review Classification & Referral to Outside Agencies**

(1) All land development proposed in the River Corridor is subject to review standards outlined in Section 12.01(D).

(2) Referrals to outside agencies

(a) Upon receipt of a complete application for development in the River Corridor, the Administrative Officer shall submit a copy of the application and supporting information to the State National Flood Insurance Program (NFIP) Coordinator at the Vermont Agency of Natural Resources, in accordance with 24 V.S.A. § 4424. A permit may be issued only 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. The AO and DRB shall consider all comments from ANR.

(b) If the applicant is seeking a permit for the alteration or relocation of a watercourse, copies of the application shall also be provided to the following entities: affected adjacent communities, the River Management Engineer at the Vermont Agency of Natural Resources, the Army Corps of Engineers, and the State National Flood Insurance Program (NFIP) Coordinator at the Vermont Agency of Natural Resources, Department of Environmental Conservation. A permit may be issued only following receipt of comments from the Vermont Agency of Natural Resources, or the expiration of 30 days from the date the application was mailed to the Vermont Agency of Natural Resources, whichever is sooner.

#### **I. Development Standards.** The criteria below are the minimum standards for development in the RCO District.

(1) **New development in the River Corridor, including the creation of new lawn areas, is generally prohibited.**

(2) **Natural Vegetation Requirement.** All lands within the River Corridor must be left in an undisturbed, naturally vegetated condition. The clearing of trees and other vegetation is generally prohibited. This standard also does not apply to forestry operations or silvicultural (forestry) activities exempt from local zoning regulation or the removal of trees that are dead, diseased, heavily damaged by ice storms or other natural events, or identified as an invasive species. The placing or storing of cut or cleared trees and other vegetation is also prohibited.

(a) **Pre-existing Non-conforming Lawn Areas.** The following section pertains the applications for new development on lots with pre-existing non-conforming lawn areas located within the River Corridor.

(i) **Single-Household Dwelling and Two-Household Dwelling Land Uses.** Development on lots with existing single or two-household dwelling uses, and pre-existing non-conforming lawn areas in the River Corridor, shall not be required to brought into conformance with the natural vegetation requirement in these regulations.

- (ii) **All Other Land Uses.** Development on lots with any other land use (beside a single or two-household dwelling), and that also includes pre-existing non-conforming lawn areas in the River Corridor, shall only be approved if the applicant removes at least 50% of the pre-existing non-conforming lawn area within the River Corridor and completes site remediation. Site remediation shall include re-seeding the subject area with a naturalized mix of grasses rather than standard lawn grass and returning the area to a natural state (no mowing).
  
- (3) **Restricted Infrastructure Encroachment.** Restricted Infrastructure Encroachment may be allowed in the River Corridor provided the proposed land development conforms with the following standards:
  - (a) The facility shall comply with the standards in Section 12.02;
  - (b) The facility must be located at least twenty five (25) feet from the edge of the channel of the surface water for all water bodies listed in Section 12.07(F)(2)(b) above and ten (10) feet from the edge of channel of the surface water of all other streams. This standard shall not apply to the intake of municipal or community water system, or the outfall of a municipal wastewater treatment or stormwater treatment projects, all of which are functionally dependent upon access to surface waters. This standard shall also not apply to road crossings, driveway crossings, public sidewalks and recreation paths (including bridges and boardwalks) intended to connect parcels and neighborhoods, or provide recreational opportunities, approved under Section 12.02;
  - (c) Stream crossings shall provide sufficient space for the passage of small amphibian and mammalian wildlife typical to the environment in water and on land beneath the structure; and,
  - (d) The facility shall comply with Section 12.07(I)(5).
  
- (4) **Landscaping and Fencing.** Landscaping and/or fencing shall be installed along the perimeter of the outside of the River Corridor to clearly identify and protect the River Corridor. The DRB may waive this requirement, if petitioned by the applicant, if there is existing forest and/or landscaping along the border of the River Corridor. The design and installation of any such landscaping or fencing must accommodate wildlife passage.
  
- (5) All land development in the River Corridor shall also comply with the following standards:
  - (a) **Within Designated Centers.** Development within Vermont designated centers shall be only allowed within the River Corridor if the applicant can demonstrate that the proposed development will not be any closer to the river than existing adjacent development.
  - (b) **Outside Designated Centers.** Development outside of designated centers shall meet the following criteria:
    - i. **Infill Development.** Infill development must be located no closer to the channel than the adjacent existing principal buildings, within a gap that is no more than 300 feet (see Figure 1); or,

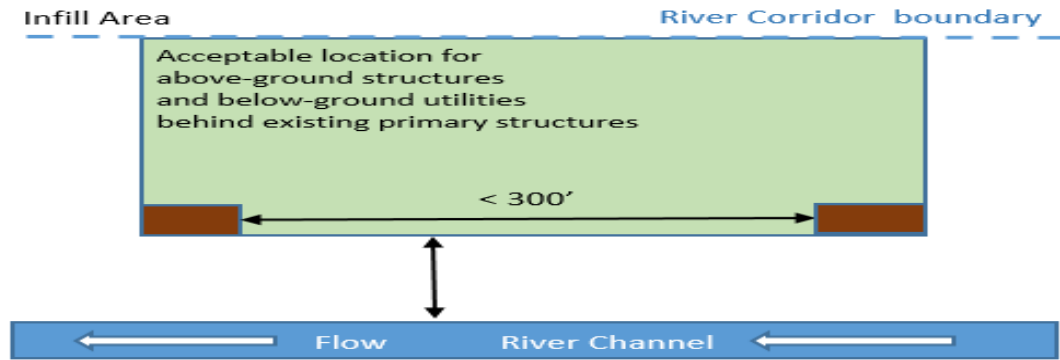


Figure 1: In-fill Development Standard

- ii. **Down River Shadow.** Development shall be located in the shadow area directly behind and further from the channel than the existing structure, or within 50 feet of the downstream side of the existing habitable structure and no closer to the top of bank or slope, as applicable. Below-ground utilities may also be placed within the same shadow dimensions of an existing below-ground system (see Figure 2); or,

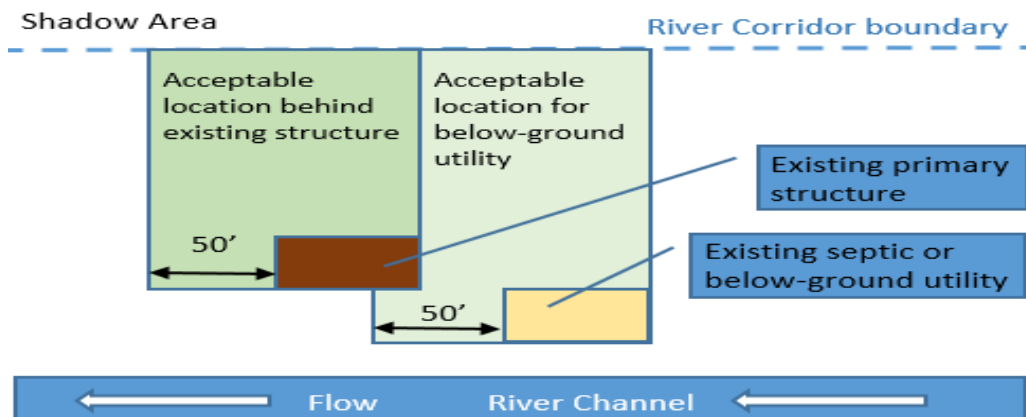


Figure 2: Shadow Area Development Standard

- iii. **River Corridor Performance Standard.** The proposed development shall:

- not be placed on land with a history of fluvial erosion damage or that is imminently threatened by fluvial erosion; and,
- not cause the river reach to depart from, or further depart from, the channel width, depth, meander pattern or slope associated with natural stream processes and equilibrium conditions; and,
- not result in an immediate need or anticipated future need for stream channelization that would increase flood elevations and velocities or alter the sediment regime, triggering channel adjustments and erosion in adjacent and downstream locations.
- In making its determination, the DRB may request or consider additional information to determine if the proposal meets the River Corridor Performance Standard, including a description of why the criteria for infill development above cannot be met, data and analysis



from a consultant qualified in the evaluation of river dynamics and erosion hazards, and comments provided by the DEC Regional Floodplain Manager on whether the proposal meets the River Corridor Performance Standard.

**J. Submission Requirements.** In addition to all information required for permitted development, the application shall include:

**(1) Plan.** A plan that depicts the proposed development, all water bodies, all River Corridor Overlay District boundaries, the shortest horizontal distance from the proposed development to the top of bank (and/or top of slope, if applicable) of any river, 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) Supplemental Application Requirements.**

(a) Information clearly demonstrating how the proposed development meets the requirements for infill development and certain non-habitable and accessory structures in subsection 12.07(I) Development Standards above; or

(b) A narrative and supporting technical information from a qualified consultant that demonstrates how the proposal meets the River Corridor Performance Standard in subsection 12.07(I) Development Standards above, or

(c) Evidence of an approved major or minor map update issued by ANR in accordance with the process outlined in the DEC Flood Hazard Area & River Corridor Protection Procedure, finding the proposed development is not located within the river corridor.

**(3) Waivers.** Upon written request from the applicant, the Administrative Officer or DRB may waive specific application requirements when the data or information is not needed to comply with Section 12.07 of this bylaw.

**K. Permit Conditions**

**(1)** Permits for public water accesses and unimproved paths that provide access to the water for the general public and promote the public trust uses of the water shall include a condition prohibiting the permittee from actively managing the applicable section of river solely to protect the public water access from lateral river channel adjustment.

**(2)** The DRB may require mitigation, such as reduction or elimination of curbing to promote wildlife passage for any Restricted Infrastructure Encroachment projects approved within the River Corridor.

### **12.08 Floodplain Overlay District (FP)**

**A. Purpose.** It is the purpose of the Floodplain Overlay District to:

**(1)** Avoid and minimize 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 is reasonably safe and accomplished in a manner that is consistent with public wellbeing, does not impair flood plain services or the stream corridor;

**(3)** Manage the flood hazard area designated pursuant to 10 V.S.A. Chapter 32 § 753, the municipal hazard mitigation plan; and make the City of South Burlington, its citizens, and businesses eligible for federal flood insurance, federal disaster recovery funds, and hazard mitigation funds as may be available.

**B. Authority.** In accordance with 10 V.S.A. Chapter 32, and 24 V.S.A. Chapter 117 §4424, §4411 and §4414, there is hereby established a bylaw for areas at risk of flood damage in the City of South Burlington Vermont. These regulations shall apply to development in all areas in the City of South Burlington identified as within the Floodplain Overlay District designated in Section 3.01(B).

**C. [reserved]**

**D. Administration**

**(1) Floodplain Review.** All development in the City of South Burlington located within the Floodplain Overlay District shall be subject to Floodplain Review. The Floodplain Overlay District overlays other existing zoning districts. All other requirements of the underlying district shall apply in addition to the provisions herein, unless otherwise indicated. The Floodplain Overlay District is composed of two areas:

(a) Floodplain Overlay District Zones A, AE, and A1-30. The boundaries of these Zones include those areas of special flood hazard designated in and on the most current flood insurance studies and maps published by the Department of Homeland Security, Federal Emergency Management Agency, National Flood Insurance Program and mapped as Zones A, AE, or A1-30.

(b) Floodplain Overlay District Zones 0.2% B1 and B2. The boundaries of these Zones include those areas of special flood hazard designated in and on the most current flood insurance studies and maps published by the Department of Homeland Security, Federal Emergency Management Agency, National Flood Insurance Program, and as depicted on the Natural Resources Map as Zone 0.2% B1 and Zone 0.2% B2. Floodplain Overlay District Zone 0.2% B1 is composed of areas of the 500-year floodplain that are already substantially developed and where additional opportunities for infill development is appropriate. Floodplain Overlay District Zone 0.2% B2 is composed of areas of the 500-year floodplain that are not developed and where future development is not appropriate.

**(2) Interpretation.** The information presented on any maps, or contained in any studies, adopted by reference, is presumed accurate. However, if uncertainty exists regarding the Floodplain Overlay District boundary, the following procedure shall be followed:

a. If uncertainty exists with respect to the boundaries of the Floodplain Overlay District Zones A, AE, and A1-30 the location of the boundary shall be determined by the Administrative Officer. If the applicant disagrees with the determination made by the Administrative Officer, a Letter of Map Amendment from FEMA shall constitute proof that the property is not located within the Special Flood Hazard Area.

b. If uncertainty exists with respect to the boundaries of the Floodplain Overlay District Zones 0.2% B1 and B2 the location of the boundary shall be determined by the Administrative Officer. If the applicant disagrees with the determination made by the Administrative Officer, the applicant may appeal the determination in accordance with Article 17.

**(3) Base Flood Elevations and Floodway Limits.**

- a. Where available (i.e. zones A1-A30, AE, AH, and 0.2% B1 within the floodplain of the Winooski River), the base flood elevations and floodway limits (or data from which a community can designate regulatory floodway limits) provided by the National Flood Insurance Program in the Flood Insurance Study and accompanying maps shall be used to administer and enforce the provisions of these regulations.
- b. In Zone A of the Floodplain Overlay District where base flood elevations and floodway limits have not been provided by the National Flood Insurance Program in the Flood Insurance Study and accompanying maps, it shall be the responsibility of the applicant to develop the base flood elevation at the site using data available from state or federal agencies or other sources.

**(4) Warning of Disclaimer of Liability.** This bylaw does not imply that land outside of the areas covered by this overlay district will be free from flood damages. These regulations shall not create liability on the part of the City of South Burlington, or any municipal official or employee thereof, for any flood damages that result from reliance on these regulations, or any administrative decision lawfully made hereunder.

**(5) Precedence of Bylaw.** The provisions of this Floodplain Overlay District shall not in any way impair or remove the necessity of compliance with any other local, state, or federal laws or regulations. Where these regulations imposes a greater restriction the provisions here shall take precedence.

**(6) Exempted Development.** The following types of development are exempt from Floodplain Review. The following types of development may also still be subject to other standards in the South Burlington Land Development Regulations including Section 12.07:

- (a) The removal of a building or other improvement in whole or in part, so long as the ground elevations under and adjacent to the removed structure remain unchanged. Please be aware that for damaged structures where FEMA mitigation funds may be used, the damaged structure may be required to remain in place until funds are granted.
- (b) Routine maintenance of existing buildings in the usual course of business required or undertaken to conserve the original condition, while compensating for normal wear and tear.
- (c) Routine maintenance includes actions necessary for retaining or restoring a piece of equipment, machine, or system to the specified operable condition to achieve its maximum useful life and does not include expansions or improvements to development.
- (d) Interior improvements to existing buildings that cost less than five-hundred (500) dollars.
- (e) Maintenance of existing sidewalks, roads, parking areas, or stormwater drainage; this does not include expansions.
- (f) Maintenance of existing bridges, culverts, and channel stabilization activities; this does not include expansions.
- (g) Streambank armoring and stabilization, retaining walls, 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, under 10 V.S.A. Chapter 41 and the rules adopted thereunder.
- (h) The following activities are exempt from Floodplain Review, 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).
  - iv. Public utility power generating plants and transmission facilities regulated under 30 V.S.A. § 248.
- (i) Telecommunications facilities regulated under 30 V.S.A. § 248a. Planting projects which do not include any construction or grading activities in accordance with 24 V.S.A. § 4424(c).

#### **E. Floodplain Review Application Requirements**

**(1) Application Submission Requirements.** All applications for Floodplain Review shall include:

- (a) Floodplain Development Plan. A Floodplain Development Plan that depicts the proposed development, property boundaries, all water bodies, all boundaries (Floodplain Overlay District boundaries – all zones), the shortest horizontal distance from the proposed development to the top of bank of any river, 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; and
- (b) Project Review Sheet. A completed Vermont Agency of Natural Resources Project Review Sheet. The Project Review Sheet shall identify all State and Federal agencies from which permit approval is required for the proposal, and shall be filed as a required attachment to the municipal permit application. The identified permits, or letters indicating that such permits are not required, shall be submitted to the Administrative Officer and attached to the permit before work can begin.

**(2) Supplemental Application Requirements.** Some applications may require additional information based on the location and type of the development. The following information shall be developed and provided with an application, as required below:

- (a) Base Flood Elevation (BFE). BFE information is required for applications that include the following development located in Zones A, A1-A30, AE, AH, and 0.2% B1 within the floodplain of the Winooski River:
  - i. New, substantially improved, or substantially damaged structures;
  - ii. Projects requiring elevation or dry-floodproofing above BFE;
  - iii. Additions to existing historic structures; and
  - iv. Any accessory structure proposed to have building utility systems that will need to be protected from flood waters through elevation above the BFE.
- (b) Floodway Data. The following information is required for development proposed to be located in the floodway. All floodway data shall be certified by a registered professional engineer. All submitted proposals shall include electronic input/output files mapping showing cross-section locations and the following information:
  - i. Hydraulic calculations demonstrating no rise in BFE or velocity for proposed new or expanded encroachments within the floodway.
  - ii. In accordance with 44 C.F.R. § 60.3(c)(10), where BFE data has been provided by FEMA, but no floodway areas have been designated, the applicant shall provide 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 one foot at any point within the community.

- (c) Average Grade Level. Information about average grade level is required for development involving all structures proposed to be located in Zone 0.2% B1 and Zone 0.2% B2.
- (d) Erosion Control Projects. For projects involving erosion control measures within the floodplain on Lake Champlain, the applicant shall submit:
  - i. Renderings or other additional information relevant and necessary to evaluating the aesthetic or visual impact of the proposed improvement.
  - ii. A landscaping plan.

**(3) Waivers.** Upon written request from the applicant, the Development Review Board may waive specific application requirements when the data or information is not needed to comply with these regulations.

**F. Floodplain Review - Development Review Process.** All applications for development in the Floodplain Overlay District shall be reviewed according to the following procedures:

**(1) Referrals.**

- (a) **NFIP Coordinator.** Upon receipt of a complete Floodplain Review application for a substantial improvement or new construction the Administrative Officer shall forward a copy of the application and supporting information to the State National Flood Insurance Program Coordinator at the Vermont Agency of Natural Resources, in accordance with 24 V.S.A. 4424. A permit may be issued only 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. The Administrative Officer, and/or Development Review Board shall consider all comments from ANR.
- (b) **Stream Alteration Engineer.** If the applicant is seeking a permit for the alteration or relocation of a watercourse, copies of the application shall also be submitted to the adjacent communities, the Stream Alteration Engineer at the Vermont Agency of Natural Resources, and the Army Corps of Engineers. Copies of such notice shall be provided to the State National Flood Insurance Program (NFIP) Coordinator at the Vermont Agency of Natural Resources, Department of Environmental Conservation. A permit may be issued only following receipt of comments from the Vermont Agency of Natural Resources, or the expiration of 30 days from the date the application was mailed to the Vermont Agency of Natural Resources, whichever is sooner.

**(2) Review Process.**

- (a) **Administrative Review.** Floodplain Review may be completed administratively by the Administrative Officer for the following types of development in the Floodplain Overlay District provided that the application is complete and the proposed development can be approved administratively under all other sections of the South Burlington Land Development Regulations:
  - i. Changes from a permitted land use to another permitted land use provided that any other changes to the site may also be administratively reviewed.
  - ii. Above grade development, which has not been elevated by the placement of fill, that is two feet above base flood elevation and documented with field-surveyed topographic information certified by a registered professional engineer or licensed land surveyor (Elevation Certificate).

- iii. Open fencing and signs elevated on poles or posts that create minimal resistance to the movement of floodwater.
- iv. Municipal transportation infrastructure improvements designed and constructed by the Vermont Agency of Transportation that have written confirmation from the ANR Regional Floodplain Manager that the project is designed to meet or exceed the applicable standards in these regulations.
- v. 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 these regulations.
- vi. Improvements or repairs of damage to structures that do not expand the existing footprint and do not meet the definition of “substantial improvement” or “substantial damage.”
- vii. Accessory structures less than 500 square feet in size in the Floodplain Overlay District Zones 0.2% B1.
- viii. Building utilities.
- ix. Recreational vehicles. See Section 3.08 Temporary Structures and Uses for additional applicable standards.

(b) **Development Review.** All development in the Floodplain Overlay District that cannot be approved through administrative Floodplain Review shall require Floodplain Review by the Development Review Board.

**(3) Permits.** A permit is required from the Administrative Officer for all development, as defined in Section 2.03 (Floodplain Definitions), in the Floodplain Overlay District. A permit shall only be issued for development meeting the standards in Section 12.08(G) and the following the review process outlined in Section 12.08(F) and Article 17.

- (a) Within 30 days of receipt of a complete application per Section 12.08(E), including all application materials and fees, the Administrative Officer shall act to either issue or deny a permit in writing, or to refer the application to the Development Review Board. If the Administrative Officer fails to act with regard to a complete application for a permit within the 30-day period, a permit shall be deemed issued on the 31st day, unless the permit is for new construction or substantial improvement, in which case a permit shall not be issued until the Administrative Officer has complied with the requirements of Section 12.08(F)(1)).
- (b) No zoning permit shall be issued by the Administrative Officer for any use or structure which requires the approval of the Development Review Board until such approval has been obtained. For permit applications that must be referred to a state agency for review, no permit shall be issued until a response has been received from the State, or the expiration of 30 days following the submission of the application to the State, whichever is sooner.

**G. Floodplain Review Standards.** Development in the Floodplain Overlay District shall be reviewed to ensure that it complies with the following standards:

**(1) Prohibited Development.** In addition to any uses not specifically listed in this section, the following types of development are specifically prohibited in the Floodplain Overlay District:

- (a) New principal structures, both residential or non-residential (including the placement of manufactured homes), except within Zone 0.2% B1 of the Floodway Overlay District;

- (b) New accessory structures except within the Zone 0.2% B1 of the Floodplain Overlay District.
- (c) New critical facilities;
- (d) Excavation of earth products shall be prohibited in such cases where it is anticipated that such excavation will lower the level of the water table, interfere with natural flow patterns, or reduce flood storage capacity;
- (e) Storage or junk yards;
- (f) New fill except as necessary to elevate structures above the base flood elevation.
- (g) Within the floodway: 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. Minor improvements are those that would not affect base flood elevations, consistent with the provisions of FEMA P-480; Desk Reference for Local Officials.

**(2) Development in the Floodway.** Within the floodway, the following standards apply to all development:

- (a) New encroachments are prohibited within the floodway, except for the following, which also shall comply with subsection (b) below:
  - i. New encroachments relating to bridges, culverts, roads, stabilization projects, public utilities, functionally dependent uses, and river or floodplain restoration projects; and
  - ii. New encroachments relating to health and safety measures, such as replacement of preexisting on-site septic and water supply systems, if no other practicable alternative is available.
- (b) For all proposed new encroachments and above-grade development, a hydraulic analysis is required to be provided for review. The analysis should be performed in accordance with standard engineering practice, by a registered professional engineer, and shall certify 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.
- (c) For development that is either below grade or will not result in 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.
- (d) For any new encroachment that is proposed within the Floodway where a hydraulic analysis is required, the applicant may provide a FEMA Conditional Letter of Map Revision (CLOMR) in lieu of a hydraulic analysis, to demonstrate that the proposed activity will not have an adverse impact.

**(3) Development in the Floodplain Overlay District.** All development in the Floodplain Overlay District shall comply with the following standards:

- (a) All development shall be reasonably safe from flooding, as determined by compliance with the specific standards of this subsection.

- (b) All development shall be designed (I) to minimize flood damage to the proposed development and to public facilities and utilities, and (II) to provide adequate drainage to reduce exposure to flood hazards.
- (c) All development shall be (I) designed (or modified) and adequately anchored to prevent flotation, collapse, or lateral movement of the structure during the occurrence of the base flood, (II) be constructed with materials resistant to flood damage, (III) be constructed by methods and practices that minimize flood damage, and (IV) be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.
- (d) **Water Supply and Wastewater.** New and replacement water supply and 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. On site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.
- (e) **Stream Alteration.** The flood carrying capacity within any portion of an altered or relocated watercourse shall be maintained.
- (f) **Manufactured Homes.** Replacement manufactured homes shall be elevated on properly compacted fill such that the top of the fill (pad) under the entire manufactured home is above the base flood elevation.
- (g) **Structures.**
  - i. Residential Structures
    - a) Residential structures to be substantially improved in Floodplain Overlay District Zones A, A1-30, AE, and AH shall be located such that the lowest floor is at least two (2) feet above base flood elevation; this must be documented, in the proposed and as-built condition, with a FEMA Elevation Certificate.
    - b) Residential structures to be substantially improved in Floodplain Overlay District 0.2% Zones B1 & B2, and new structures in Floodplain Overlay District Zone 0.2% B1, shall be located such that the lowest floor is at least two (2) feet above the average grade level on-site; this must be documented, in the proposed and as-built condition, with a FEMA Elevation Certificate. Average grade level means the average of the natural or exiting topography at center of all exterior walls of a building or structure to be placed on site.
  - ii. Non-residential Structures. Non-residential structures to be substantially improved, and new non-residential structures in the Floodplain Overlay District 0.2% Zone B1, shall meet the following standards:
    - a) Meet the standards in Section 12.08(G)(3)(g)(i) Residential Structures; or,
    - b) Have the lowest floor, including basement, together with attendant utility and sanitary facilities be designed so that two (2) feet above the base flood elevation (for structures in Zones A, A1-30, AE, and AH), or two (2) feet above the average grade level on-site (for structures in Zones 0.2% B1 and B2), the structure is 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. A permit for flood proofing shall not be issued until a licensed 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. An occupancy permit for the structure shall not be issued until an "as-built" plan has been submitted and a licensed professional engineer or architect has certified that the



structure has been constructed in accordance with accepted standards of practice for meeting the provisions of this subsection.

- (h) **Basements.** For all new construction and substantial improvements, fully enclosed areas below grade on all sides (including below grade crawlspaces and basements) shall be prohibited. Substantial improvements to existing buildings requires compliance with this section.
- (i) **Areas Below Base Flood Elevation.** For all new construction and substantial improvements, fully enclosed areas that are above grade, below the lowest floor, below Base Flood Elevation and subject to flooding, shall be (i) solely used for parking of vehicles, storage, or access, and such a condition shall clearly be stated on any permits; and, (ii) designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Such designs must be certified by a licensed professional engineer or architect, or 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 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.
- (j) **Impact to Base Flood Elevation.** In the AE Zone, where base flood elevations and/or floodway limits have not been determined, development shall not be permitted unless 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 more than one (1) foot at any point within the community. The demonstration must be supported by technical data that conforms to standard hydraulic engineering principles and certified by a licensed professional engineer.
- (k) **Recreational Vehicle.** All recreational vehicles shall be fully licensed and ready for highway use.
- (l) **Accessory Structures.** In Floodplain Overlay District 0.2% Zone B1, a small accessory structure of 500 square feet or less in gross floor area that represents a minimal investment need not be elevated to the base flood elevation in this area, provided the structure is placed on a site so as to offer the minimum resistance to the flow of floodwaters and shall meet the criteria of 12.08(G)(3)(i). Accessory structures are prohibited in all other parts of the Floodplain Overlay District.
- (m) **Critical Facilities.** Critical facilities that are to be replaced, substantially improved, or meet the definition of substantial damage shall be constructed so that the lowest floor, including basement, shall be elevated or dry-floodproofed at least two (2) feet above the average grade level in Floodplain Overlay District 0.2% Zone B1 and Floodplain Overlay District 0.2% Zone B2, or three (3) feet above base flood elevation in Floodplain Overlay District Zones A, AE, and A1-30. A critical facility shall have at least one access road connected to land outside the 0.2% annual chance floodplain that is capable of accommodating emergency services vehicles. The top of the access road shall be no lower than the elevation of the 0.2% annual chance flood event.
- (n) **Historic Structures.** 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 shall meet the following mitigation performance standards for areas below the base flood elevation:

- i. Utility connections (e.g., electricity, water, sewer, natural gas) shall be protected from inundation and scour or be easily repaired;
- ii. The building foundation shall be structurally sound and reinforced to withstand a base flood event;
- iii. The structure's historic designation shall not be precluded;
- iv. The likelihood of flood waters entering the structure during the base flood is reduced; and
- v. There shall be no expansion of uses below base flood elevation except for parking, storage, building access, or, in the case of non-residential buildings, where the space is dry floodproofed.

(o) **No Rise Requirement.** No encroachment, including fill, new construction, substantial improvement, or other development, that would result in any increase in flood levels within the regulatory floodway during the occurrence of the base flood discharge, shall be permitted unless hydrologic and hydraulic analyses are performed in accordance with standard engineering practice, by a licensed professional engineer, certifying that the proposed development will: a) Not result in any increase in flood levels (0.00 feet) during the occurrence of the base flood; and b) Not increase any risk to surrounding properties, facilities, or structures from erosion or flooding.

(p) **Erosion Control Measures on Lake Champlain.** The installation of erosion control measures within may be approved by the DRB provided the following standards are met:

- i. The improvement involves, to the greatest extent possible, the use of natural materials such as wood and stone.
- ii. The improvement will not increase the potential for erosion.
- iii. The project will not have an undue adverse effect on the aesthetic integrity of the lakeshore.
- iv. The project shall preserve, maintain and supplement existing trees and ground cover vegetation to the greatest extent possible.

**(4) Other Applicable Standards.** Development in the Floodplain Overlay District may be subject to these additional standards:

- a. All land lying within a River Corridor as defined in these regulations is subject to the standards of Section 12.07 in addition to the standards of this section.

#### **H. Nonconforming Structures.**

- (1)** A nonconforming structure in the Floodplain Overlay District that has been substantially damaged or destroyed may be reconstructed in its original location only if it is rebuilt to comply with all requirements of the National Flood Insurance Program and these regulations;
- (2)** Nonconforming structures and uses shall be considered abandoned where the structures or uses are discontinued for more than 6 months. An abandoned structure shall not be permitted for re-occupancy unless brought into compliance with these regulations and Section 3.11(G). An abandoned use shall not be permitted unless brought into compliance with these regulations.

#### **I. Variances.**

- (1) A variance for development in the Floodplain Overlay District may be granted by the Development Review Board only in accordance with Title 24, Vermont Statutes Annotated and 44 CFR Section 60.6.
- (2) Any variance issued in the Special 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 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 of coverage. Such notification shall be maintained with a record of all variance actions.

**J. Certificate of Occupancy.** A Certificate of Occupancy shall be required for all new structures or substantial improvements to structures in the Floodplain Overlay District.

- (1) Upon receipt of the application for a certificate of occupancy, the Administrative Officer shall review the permit conditions and inspect the premises to ensure that:
  - ii. All required state and federal permits that have been obtained by the applicant;
  - iii. All work has been completed in conformance with the zoning permit and associated approvals; and
  - iv. All required as-built documentation has been submitted to the Administrative Officer (e.g. updated FEMA Elevation Certificate, dry floodproofing certificate, as-built volumetric analysis, or as-built floodway encroachment analysis).

**K. Enforcement.** Enforcement shall be conducted by the Administrative Officer. All enforcement action related to property in the Floodplain Overlay District shall be performed in compliance with Article 17 and the following procedures:

- (1) The State NFIP Coordinator shall be provided a copy of all notices of violation issued by the Administrative Officer for development that is not in conformance with this section.
- (2) If any appeals have been resolved, but the violation remains, the Administrative Officer 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.