

**Article III. General Regulations**Adopted 3-1-11, Amended 3-6-18; ~~3-4-14; 3-6-12~~

1 6. Above ground storage tanks for oil, gasoline or other petroleum products shall be placed  
2 in a building or other impervious containment area to prevent spills and leaks from  
3 reaching groundwater (also see Section 3.12).

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5 7. The use of sodium chloride for ice control shall be minimized.

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7 C. The DRB, as a condition of approval, may required groundwater monitoring on-site or in  
8 the immediate vicinity of the project.

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10 D. The following uses and activities are specifically prohibited within designated source  
11 protection areas:

12  
13 1. Operations, including home based businesses, which manufacture, use, process, store or  
14 dispose of hazardous materials or wastes in amounts that could threaten public water  
15 supplies, including but not limited to metal plating, chemical manufacturing, wood  
16 preserving, photographic processing, motor vehicle service, auto body repair, furniture  
17 stripping, and dry cleaning materials.

18  
19 2. Solid and hazardous waste landfills, storage and transfer facilities, dumps, and salvage  
20 yards.

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22 3. Outdoor storage of salt, de-icing materials, snow dumps, pesticides or herbicides.

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24 4. The storage or spreading of sludge from wastewater treatment facilities.

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26 5. Cemeteries.

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28 6. The storage of unregistered vehicles, unless stored in an enclosed structure and parked  
29 on an impervious surface or drained of all fluids.

30  
31 7. Installation of floor drains or sumps that discharge directly to the ground.

32  
33 8. Underground storage tanks, and above ground storage tanks that lack an adequate  
34 impervious containment area.

35  
36 **Section 3.18 Steep Slopes**

37  
38 A. **Purpose.** The purpose of this section is to regulate land subdivision and development to  
39 minimize site disturbance and construction on steep slopes (15% to 25%), and to avoid site  
40 disturbance on very steep slopes (> 25%) in order to:

41  
42 1. Maintain existing topography, including natural (pre-development) elevations, grades  
43 and drainage patterns.

44 2. Minimize impervious surfaces, stormwater runoff, channeling, flooding and soil erosion,  
45 on steep slopes.

- 1 3. Prevent hazards to life and property resulting from slope instability or failure, including  
2 rock falls, slides, slumps and other downslope movements of materials or structures.
- 3 4. Avoid stream sedimentation and adverse impacts to surface and ground water quality,  
4 and aquatic habitat.
- 5 5. Maintain and re-establish vegetation on steep slopes to stabilize soils, and to maintain  
6 riparian buffers.
- 7 6. Minimize the adverse visual impacts of steep slope development, as viewed from public  
8 vantage points.
- 9 7. Avoid the need for permanent and costly engineered slope stabilization and stormwater  
10 management practices on very steep slopes, including excessive long-term management  
11 and maintenance costs.
- 12 8. Ensure that development on steep slopes is constructed and maintained in conformance  
13 with best management practices for construction, stormwater management and erosion  
14 control.

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16 **B. Applicability.** The requirements of this section apply to all land subdivision and  
17 development including, within the context of this section, site clearing and preparation,  
18 grading and excavation, construction, and the installation of driveways, roads, utilities and  
19 other infrastructure, on steep or very steep slopes as defined under Section 11.2

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21 1. **Exemptions.** The following are specifically exempt from the requirements of this  
22 section:

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24 a. Agriculture conducted in conformance with Accepted Agricultural Practices (AAPs)  
25 as defined by the Secretary of Agriculture, Food and Markets (see Section 10.2).

26

27 b. Forestry (silviculture), conducted in conformance with Accepted Management  
28 Practices (AMPs) as defined by the Commissioner of Forests, Parks and Recreation,  
29 including logging roads which conform to "Acceptable Management Practices for  
30 Maintaining Water Quality on Logging Jobs in Vermont" as most recently amended  
31 (see Section 10.2).

32

33 c. Utilities, including telecommunications facilities, power generation facilities, and  
34 transmission lines regulated by the Vermont Public Service Board (see Sections  
35 4.16, 10.2).

36

37 d. Extraction and quarrying operations which are separately regulated under Section  
38 4.8.

39

40 e. The construction of additions or new accessory structures that, in total, do not  
41 increase the pre-existing building coverage of the lot within a steep or very steep  
42 slope area, as of March 2, 2011, by more than 500 square feet.

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44 f. Site disturbance and clearing that is customary and incidental to residential  
45 gardening and landscaping activities (see Section 10.2).

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- g. Emergency remedial action to stabilize an unstable or failing slope which poses an imminent threat to public health, safety or welfare, provided that the action involves the least necessary disruption of natural features of the site.
- h. Unpaved paths or trails incidental a residential use that are maintained for use only by residents of the property and guests (see Section 10.2).
- i. Isolated, noncontiguous areas of steep or very slope with a total area of 1,000 square feet or less.

2. All other development on steep and very steep slopes is subject to conditional use review under Section 5.4 or, for the subdivision of land, applicable subdivision standards under Article VII, and the requirements of this section.

3. The DRB may waive one or more standards under this section, and associated application requirements, if it finds that:

- a. such requirements and standards are not applicable to a particular project; or
- b. it is evident, based on submitted information and a site inspection, that the proposed development involves minimal site disturbance and poses a negligible threat to water quality, public roads and facilities, and to adjoining properties.

**C. Application Requirements.** In addition to application requirements under Section 5.2, applications for development on steep or very steep slopes shall include the following:

- 1. A copy of the USGS topographic map showing the location of the property in relation to general site topography and drainage.
- 2. A slope map of the property generally showing areas of steep (15% to 25%) and very steep (>25%) slope, as determined from one or more of the following:
  - a. USGS topographic maps,
  - b. Digital elevation data available from the Vermont Center for Geographic Information, or
  - c. Vermont Soil Survey map units, available from the USDA Natural Resource Conservation Service.
- 3. A site plan for the property prepared by a licensed professional engineer or surveyor showing:
  - a. The location of all surface waters, wetlands, and required setback and buffer areas (see Section 3.19).

- 1        b. The general location and density of existing vegetation and a tabulation of the type,  
2        area and location of vegetation to be removed.
- 3        c. The location of rock outcrops and ledges larger than 200 square feet in area.
- 4        d. The location of all existing and proposed improvements, including building  
5        envelopes or footprints, driveways, roads and other impervious surfaces, and trail  
6        and utility corridors.
- 7
- 8        4. A grading plan for the property prepared by a licensed professional engineer or surveyor  
9        showing:
  - 10
  - 11        a. The limits of proposed site disturbance on steep and very steep slopes.
  - 12        b. Existing elevation contours at 2-foot intervals (National Geodetic Vertical Datum)  
13        within and extending 100 feet beyond all areas of proposed site disturbance.
  - 14        c. For linear development (e.g., driveway, road, trail) attached elevation cross-sections  
15        (profiles) and slope calculations for each segment identified on the grading plan.
  - 16        d. Elevation contours for finished grades within all proposed areas of site disturbance.
  - 17        e. The location of existing and proposed erosion control and stormwater management  
18        facilities or measures.
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- 20        5. A stormwater management, erosion prevention and sediment control plan, prepared or  
21        certified by a professional engineer, that includes:
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  - 23        a. A construction narrative and schedule.
  - 24        b. Calculations of the volume and velocity of surface runoff from the lot pre- and post-  
25        development.
  - 26        c. A description of soils within and extending 100 feet beyond all proposed areas of  
27        disturbance, including information regarding soil slope, erodability, construction  
28        stability, and depth to bedrock.
  - 29        d. Temporary and permanent measures to control stormwater runoff and prevent soil  
30        erosion during all phases of development, and associated construction details.
  - 31        e. Temporary and permanent slope stabilization measures, and associated  
32        construction details.
  - 33        f. Specifications for site re-vegetation following final construction and grading.
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- 35        6. For development that involves the construction of structures on steep slopes, an  
36        architectural or engineering plan, prepared by a licensed professional, that includes  
37        structural elevations and sections, and identifies building construction methods and  
38        details.
- 39
- 40        7. The following also shall be submitted as applicable for development that directs or  
41        channels stormwater runoff off-site to adjoining surface waters, properties or public  
42        rights-of-way:
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  - 44        a. Approval from the Underhill Selectboard or Vermont Agency of Transportation for  
45        drainage into public road rights-of-way.

- 1        b. Drainage easements for drainage onto adjoining properties.
- 2        c. A hydrologic study prepared by a qualified professional, to be paid for by the
- 3            applicant, if required by the DRB to determine the effects of proposed development
- 4            on surface waters, wetlands, special flood hazard areas and downstream facilities in
- 5            the vicinity of the project, and recommended mitigation measures.
- 6
- 7        **D. Steep Slopes (15% to 25%).** Development, including building envelopes or footprints,
- 8        driveways, parking areas, septic systems, and road and utility corridors shall be sited to
- 9        minimize site disturbance on steep slopes (15% to 25%), in conformance with the following
- 10       standards:
- 11
- 12       1. Existing vegetation and drainage patterns shall be maintained to the maximum extent
- 13            physically feasible to avoid stream alterations and relocations, and increased
- 14            stormwater runoff due to vegetation removal, slope disturbance, re-contouring or site
- 15            compaction. No new drainageways shall be created or additional runoff directed to
- 16            surface waters, wetlands, public rights-of-way, or adjacent properties unless all
- 17            necessary state and municipal approvals and drainage easements are obtained.
- 18
- 19       2. The area(s) of site disturbance shall be limited in extent to that necessary to
- 20            accommodate proposed development, including access and supporting infrastructure,
- 21            and shall be stabilized and re-vegetated at the completion of construction and final
- 22            grading.
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- 24            a. Areas of site disturbance shall exclude ridgelines and, to the extent physically
- 25            feasible, rock outcrops greater than 200 square feet in area.
- 26
- 27            b. Areas of site disturbance shall be located outside of required setback areas,
- 28            including property line and surface water and wetland setbacks. Setback distances
- 29            shall be increased as necessary to avoid slope instability or surface runoff that could
- 30            damage surface waters, wetlands or adjoining properties.
- 31
- 32            c. Areas of site disturbance and construction, as approved by the DRB, shall be clearly
- 33            marked (staked or fenced) on the ground during all phases of construction.
- 34
- 35            d. Site disturbance and construction shall be phased so that only those areas under
- 36            active construction are exposed.
- 37
- 38            e. Topsoil removed from disturbed areas shall be stockpiled and stabilized for
- 39            replacement on the site following final construction and grading. Topsoil shall not
- 40            be stockpiled on slopes greater than 10%.
- 41
- 42            f. Temporary measures shall be used to stabilize slopes and soils until final grades are
- 43            established, in conformance with a DRB-approved construction or phasing
- 44            schedule.
- 45

- 1 g. All disturbed areas shall be stabilized during winter months. Site stabilization  
2 measures shall be installed by October 15th. No site disturbance or construction  
3 shall occur between October 15th and April 15th unless specific measures for  
4 winter construction, stormwater management and erosion control are approved.  
5
- 6 h. Finished grades shall not exceed 3:1 (three-foot horizontal to one-foot vertical) and  
7 shall be rounded to eliminate sharp angles and blend into natural land contours,  
8 except where retaining walls or other engineered slope-stabilization measures are  
9 proposed.  
10
- 11 i. Permanent vegetation shall be re-established and maintained following final  
12 construction and grading as necessary to stabilize disturbed and graded slopes, to  
13 minimize stormwater runoff and erosion, and to screen development as viewed  
14 from public vantage points to avoid undue adverse visual impacts.  
15

- 16 3. Driveways, roads and utility corridors, to the maximum extent physically feasible, shall  
17 be shared and designed and constructed to:  
18
- 19 a. Follow natural elevation contours to minimize the amount of cut and fill and slope  
20 stabilization required, and the adverse visual impacts of road and utility cuts.
- 21 b. Avoid rock outcrops and ledges larger than 200 square feet in area.
- 22 c. Minimize the number and extent of stream crossings and buffer area disturbance  
23 within steep slope areas.
- 24 d. Avoid channeling or directing stormwater runoff to adjoining properties, public  
25 rights-of-way, and surface waters and wetlands.
- 26 e. Not exceed an average finished grade of 12% as measured over any 50-foot section,  
27 in accordance with Sections 3.2 and 8.6.  
28

29 An existing farm or logging road with a gradient of 25% or less may be converted and  
30 upgraded for recreational use or to access development if it meets all applicable  
31 requirements of these regulations. However, if an alternative route exists that results  
32 in less slope or site disturbance, the DRB may require the installation of a new driveway  
33 or access road and the stabilization, re-vegetation and abandonment of the farm or  
34 logging road.  
35

- 36 4. Structures shall be designed, to the maximum extent physically feasible, to conform to  
37 rather than alter steep slope areas.  
38
- 39 a. Reduced building footprints, stilts, step-down and similar construction methods  
40 shall be used to minimize the need for slope terracing and retaining walls.
- 41 b. Excavation for foundations and footings shall be limited to the extent physically  
42 feasible to minimize site disturbance and ensure compatibility with surrounding  
43 terrain. Footings shall extend to stable rock or soil.
- 44 c. Site excavation for building pads is prohibited for detached accessory structures  
45 other than garages.

- 1 d. Compacted clean fill shall be used as necessary to support proposed structures.
- 2 e. Structures shall be set back from the top and bottom of cut and fill slopes an
- 3 adequate distance (generally six feet plus one-half the height of the cut or fill)
- 4 necessary to ensure structural safety.
- 5 f. Structures on steep slopes shall be screened and constructed of materials that
- 6 minimize their visibility from public vantage points.
- 7

8 5. Stormwater runoff and erosion shall be managed on-site in conformance with  
9 management plans approved by the DRB, through the use of best management  
10 practices (BMPs) approved by state which are appropriate for the type of development  
11 and site-specific slope, drainage and soil conditions. For the purpose of these  
12 regulations, the following publications, as most recently revised, shall serve as official  
13 guides and specifications for stormwater management and erosion control. Practices  
14 designed and constructed in accordance with these technical documents shall be  
15 presumed to meet this standard:

- 16
- 17 a. Vermont Stormwater Management Manual, Volumes I and II.
- 18 b. Vermont Standards & Specifications for Erosion Prevention and Sediment Control.
- 19 c. Vermont Erosion Prevention and Sediment Control Field Guide.
- 20

21 State stormwater management and construction permits may serve as documentation  
22 that this standard has been met.

23

24 E. **Very Steep Slopes (>25%).** Site disturbance and development, not limited to grading,  
25 building construction and the installation of driveways, roads, utilities or other  
26 infrastructure, is prohibited on very steep slopes (>25%) except for activities that are exempt  
27 under Subsection B, and the following, which must otherwise meet all relevant steep slopes  
28 standards under Subsection D.

- 29
- 30 a. Hiking, rock climbing, snowmobile and mountain-biking trails that are open to the
- 31 public and are regularly maintained by a public, nonprofit or commercial entity.
- 32
- 33 b. Ski lifts and trails associated with an existing or permitted alpine or Nordic ski
- 34 facility, including permitted year-round recreational uses of such facilities.
- 35
- 36 c. Development on a lot legally in existence as of March 2, 2011 for which the DRB
- 37 determines that no portion of the lot has a slope of 25% or less and, as such,
- 38 prohibiting development on very steep slopes would preclude any reasonable use
- 39 of the property.
- 40
- 41 d. A driveway or road required to serve proposed development which extends no
- 42 more than 100 feet into an area of very steep slope, if it is clearly documented that
- 43 no other means of access can be provided.
- 44

1 F. **Considerations.** Conditions of approval under the standards of this section, as required  
2 to meet the intent and purpose of these regulations, may include but are not limited to:

- 3 a. Limitations on the total portion of any steep or very steep slope area that may be  
4 cleared, regraded, filled, drained, excavated or otherwise modified.
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- 6 b. Performance bonds or other sureties acceptable to the Underhill Selectboard to  
7 ensure that construction, stormwater management and erosion control systems,  
8 and slope stabilization and revegetation are completed as approved.
- 9
- 10 c. Easements or deed restrictions on the future use and subdivision of land as  
11 necessary to protect remaining undeveloped steep and very steep slope areas.
- 12
- 13 d. Maintenance agreements that ensure permanent slope stabilization and  
14 stormwater management facilities are properly maintained.
- 15
- 16 e. Increased setbacks from slopes, property lines, surface waters and wetlands for site  
17 disturbance and construction activities, as necessary to maintain slope stability.
- 18
- 19 f. The submission of monitoring and site inspections reports and professional  
20 certifications during and after the completion of construction.
- 21
- 22 g. Construction materials that minimize the visibility of development on steep slopes.
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- 24 h. Re-vegetation and screening requirements.
- 25
- 26 i. Documentation that all required state and federal permits have been obtained prior  
27 to the start of site work.
- 28

29 G. **Liability Waiver.** The applicant and subsequent property owners shall assume all liability  
30 in the event that changes in topography and drainage result in damage to neighboring or  
31 downstream properties. The Town of Underhill shall be held harmless from any claims for  
32 damage for approved development on steep and very steep slopes under these regulations.  
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### 34 **Section 3.19 Surface Waters & Wetlands**

35

36 A. **Purpose.** The town's rural character is enhanced by the presence of many streams,  
37 rivers, and wetlands. In addition to recreational opportunities and aesthetic benefits, these  
38 natural features provide important functions for residents and wildlife. The purpose of this  
39 section is to:

- 40
- 41 1. Protect the beneficial functions of wetlands including retaining stormwater runoff, soil  
42 stabilization, pollutant filtering, flood reduction, and protecting groundwater quality and  
43 quantity.
- 44 2. Prevent soil erosion and river/stream channel instability.
- 45 3. Protect and maintain water quality.