

STORMWATER MANAGEMENT AND EROSION CONTROL REGULATION

Adopted May 17th, 2001

1. GENERAL

- 1.1 The purpose of this regulation is to control runoff and soil erosion and sedimentation resulting from site construction and development. Subdivision and site plans shall include plans for managing stormwater and controlling erosion and sedimentation as provided below.

2. DEFINITIONS

- 2.1 **Best Management Practice (BMP):** A proven or accepted structural, non-structural, or vegetative measure the application of which reduces erosion, sediment, or peak storm discharge, or improves the quality of stormwater runoff.
- 2.2 **Critical Areas:** Disturbed areas of any size within 50 feet of a stream, bog, waterbody, or poorly or very poorly drained soils; disturbed areas exceeding 2,000 square feet in highly erodible soils; or, disturbed areas containing slope lengths exceeding 25 feet on slopes greater than 15 percent.
- 2.3 **Development:** Any construction or land construction or grading activities other than for agricultural and silvicultural practices.
- 2.4 **Disturbed Area:** An area where the natural vegetation has been removed exposing the underlying soil, or vegetation has been covered.
- 2.5 **Erosion:** The detachment and movement of soil or rock fragments by water, wind, ice, or gravity.
- 2.6 **Highly Erodible Soils:** Any soil with an erodibility class (K factor) greater than or equal to 0.43 in any layer as found in Table 3-1 of the "Stormwater Management and Erosion and Sediment Control Handbook for Urban and Developing Areas in New Hampshire."
- 2.7 **Project Area:** The area within the subdivision or site plan boundaries.

- 2.8 **Sediment:** Solid material, either mineral or organic, that is in suspension, is transported, or has been moved from its site of origin by erosion.
- 2.9 **Stabilized:** When the soil erosion rate approaches that of undisturbed soils. Soils, which are disturbed, will be considered protected when covered with a healthy, mature growth of grass or a good covering of hay or straw mulch (2 tons/acre). Mulch is only a temporary measure; ultimately, the site needs vegetation.
- 2.10 **Stormwater Runoff:** The water from precipitation that is not absorbed, evaporated, or otherwise stored within the contributing drainage area.
- 2.11 **Stream:** Areas of flowing water occurring for sufficient time to develop and maintain defined channels but may not flow during dry portions of the year. Includes but is not limited to all perennial and intermittent streams located on U.S. Geological Survey Maps.

3. APPLICABILITY

- 3.1 The applicant shall submit a stormwater management and erosion control plan to the Planning Board for any tract of land being developed or subdivided, where one or more of the following conditions are proposed:
 - 3.1.1 A cumulative disturbed area exceeding 20,000 square feet.
 - 3.1.2 Construction or reconstruction of a street or road.
 - 3.1.3 A subdivision of more than three building lots.
 - 3.1.4 Disturbed critical areas.

4. MINIMUM REQUIREMENTS

The Planning Board may waive the requirement for all or part of a stormwater management and erosion control plan if it determines that a plan is unnecessary because of the size, character, or natural conditions of a site.

- 4.1 All requests for waivers and action thereon shall be made in writing by the applicant with supporting technical documentation to demonstrate minimal environmental impact.
- 4.2 The following minimum requirements apply to all projects, regardless of size:
 - 4.2.1 Site drawing of existing and proposed conditions:

- (a) Locus map showing property boundaries
 - (b) North arrow, scale, date
 - (c) Property lines surveyed by a NH Licensed Land Surveyor
 - (d) Easements
 - (e) Structures, utilities, roads and other paved areas
 - (f) Topographic contours
 - (g) Critical areas
 - (h) Surface water and wetlands, drainage patterns, and watershed boundaries
 - (i) Vegetation
 - (j) Soils information for design purposes from a National Cooperative Soil Survey (NCSS) soil series map or a High Intensity Soil (HISS) map of the site, prepared in accordance with SSSNNE (Soil Science Society of Northern New England) Special Publication No. 1. Highly erodible soils shall be determined by soils series.
 - (k) Temporary and permanent stormwater management and erosion and sediment control BMPs
 - (l) Areas and timing of soil disturbance
 - (m) A schedule for the inspection and maintenance of all BMPs
- 4.2.2 Narrative section including discussion of each measure, its purpose, construction sequence, and installation timing as they apply to the site.

5. DESIGN STANDARDS

The following standards shall be applied in planning for stormwater management and erosion control:

- 5.1. All measures in the plan shall meet as a minimum the Best Management Practices set forth in the "Stormwater Management and Erosion and Sediment Control Handbook for Urban and Developing Areas in New Hampshire," Rockingham County Conservation District, NH Department of Environmental Services, Soil Conservation Service (now the Natural Resources Conservation Service), August 1992, as amended, a copy of which is available in the planning board office.

- 5.2. Whenever practical, natural vegetation shall be retained, protected or supplemented. The stripping of vegetation shall be done in a manner that minimizes soil erosion.
- 5.3. Appropriate erosion and sediment control measures shall be installed prior to soil disturbance.
- 5.4. The area of disturbance shall be kept to a minimum. Disturbed areas remaining idle for more than 30 days shall be stabilized.
- 5.5. Measures shall be taken to control erosion within the project area. Sediment in runoff water shall be trapped and retained within the project area using approved measures. Wetland areas and surface waters shall be protected from sediment.
- 5.6. Off-site surface water and runoff from undisturbed areas shall be diverted away from disturbed areas where feasible or carried non-erosively through the project area. Integrity of downstream drainage systems shall be maintained.
- 5.7. Measures shall be taken to control the post-development peak rate of runoff so that it does not exceed pre-development runoff for the 2-year, 24-hour storm event and for additional storm event frequencies as specified in the design criteria of the "Stormwater Management and Erosion and Sediment Control Handbook for Urban and Developing Areas in New Hampshire."
- 5.8. Priority should be given to preserving natural drainage systems including perennial and intermittent streams, wetlands, swales, and drainage ditches for conveyance of runoff leaving the project area.
- 5.9. All temporary erosion and sediment control measures shall be removed after final site stabilization. Trapped sediment and other disturbed soil areas resulting from the removal of temporary measures shall be permanently stabilized within 30 days unless conditions dictate otherwise.

6. COMPLETED APPLICATION REQUIREMENTS

- 6.1 The Planning Board shall require each of the following in the final plan unless the project is deemed of sufficiently minimal impact to qualify for the minimum requirements specified in Section 4 of this regulation.
 - 6.1.1 Construction drawings
 - (a) Existing and proposed conditions:

1. Locus map showing property boundaries
2. North arrow, scale, date
3. Property lines surveyed by a NH Licensed Land Surveyor
4. Structures, roads, utilities, earth stockpiles, equipment storage, and stump disposal
5. Topographic contours at two-foot intervals
6. Critical areas, stockpile and staging areas
7. Within the project area and within 400 feet of project boundary surface waters, wetlands, and drainage patterns and watershed boundaries
8. Vegetation
9. Extent of 100-year flood plain boundaries if published or determined
10. Soils information for design purposes from a National Cooperative Soil Survey (NCSS) soil series map or a High Intensity Soil Map of the site, prepared in accordance with SSSNNE Special Publication No. 1. Highly erodible soils shall be determined by soil series.
11. Easements
12. Areas of soil disturbance
13. Areas of cut and fill
14. Areas of poorly or very poorly drained soils including any portion to be disturbed or filled
15. Location of all structural, non-structural, and vegetative stormwater management and erosion control BMPs
16. Identification of all permanent control BMPs
17. Tabulated sequence of construction

(b) Other plan requirements:

1. Construction schedule and sequence
2. Earth movement schedule
3. A proposed schedule for the inspection and maintenance of all BMPs
4. Description of temporary and permanent vegetative BMPs including seeding specifications
5. Description of all structural and non-structural BMPs with detailed drawings of each as appropriate

6.1.2 Report section including:

- a) Design calculations for all temporary and permanent structural control BMP measures
- b) A proposed schedule for the inspection and maintenance of all BMPs
- c) Identification of all permanent control measures and responsibility for continued maintenance
- d) Drainage report with calculations showing volume, peak discharge, and velocity of present and future runoff
- e) When detention structures are planned to reduce future conditions peak discharge the soil cover complex method shall be used to compute the runoff volume and peak discharge for designing the structure. The design will conform to the criteria outlined for those types of structures given in the "Stormwater Management and Erosion and Sediment Control Handbook for Urban and Developing Areas in New Hampshire".

7. RESPONSIBILITY FOR INSTALLATION/CONSTRUCTION

- 7.1 The applicant shall bear final responsibility for the installation, construction, inspection and disposition of all stormwater management and erosion control measures required by the provisions of this regulation.
- 7.2 The Planning Board may require a bond or other security in an amount and with surety conditions satisfactory to the Board, providing for the actual construction and installation of such measures within a period specified by the Planning Board and expressed in the bond or the surety.
- 7.3 Site development shall not begin before the stormwater management and erosion control plan receives conditional approval. Best Management Practices shall be installed as designed and scheduled as a condition of final approval of the plan.

8. PLAN APPROVAL AND REVIEW

- 8.1 The Planning Board shall indicate approval of the stormwater management and erosion control plan, as filed, if it complies with the requirements and objectives of this regulation. Such approval shall be a component of subdivision or site plan approval. If disapproved, a list of plan deficiencies and the procedure for filing a revised plan will be given to the applicant.

- 8.2 Technical review of any stormwater management and erosion control plan prepared under this regulation shall be reviewed by the Rockingham County Conservation District or other qualified professional consultant, as determined to be appropriate by the planning board, at the expense of the applicant.
- 8.2.1 A copy of a review completed on any site, which has been determined to require NH DES site-specific review, shall be forwarded to NH DES.

9. MAINTENANCE AND INSPECTION

- 9.1 A narrative description of on-going maintenance requirements for water quality measures required by stormwater management and erosion and sediment control plans after final planning board approval shall be recorded on the deed to the property on which such measures are located. The description so prepared shall comply with the requirements of RSA 478:4-a.
- 9.2 The purpose of this article is to enact locally the administrative and enforcement procedures set forth in RSA 676 of the existing planning and land use statutes.
- 9.3 RSA 676 authorizes the following penalties and remedies for enforcement of the provisions of this regulation:
- 9.3.1 Injunctive relief in accordance with RSA 676:15;
 - 9.3.2 Fines and penalties in accordance with RSA 676:17;
 - 9.3.3 Issuance of a cease and desist order in accordance with RSA 676:17-a;
 - 9.3.4 Pleas by mail for local land use citations in accordance with RSA 676:17-b.
- 9.4 The Raymond Planning Board may contract with the Rockingham County Conservation District or other qualified professional consultant, to be the town's designated inspection agent, as determined to be appropriate by the planning board, at the expense of the applicant, to provide inspection services, testing services and other such services as the Board at its discretion may require to insure compliance with these regulations.
- 9.5 The planning board may require routine inspections to verify on-going maintenance of water quality protection measures. Such inspections shall be performed by the designated inspection agent, at reasonable times to the landowner.
- 9.6 If permission to inspect is denied by the landowner, the Code Enforcement Officer shall secure an administrative inspection warrant from the district or superior court under RSA 595-B.

- 9.7 The selectmen may require a fee for routine inspections of water quality protection measures. The fee shall be paid by the owner of the property. A fee schedule shall be established by the board of selectmen which represents the cost of performing an inspection on various types of water quality protection measures. The procedure for adoption of the fee schedule shall be as provided for in RSA 41- 9:a.

10. ENFORCEMENT

- 10.1 Any violation of the requirements of this regulation shall be subject to the enforcement procedures detailed in RSA 676. The Code Enforcement Officer shall be responsible for enforcement of the provisions of this regulation.
- 10.2 Written Notice of Violation. A written notice of violation shall be issued to the property owner by registered mail from the Code Enforcement Officer if they determines that conditions at the site are in violation of any of the requirements of this regulation or plans approved under this regulation and that the violation is not an immediate threat to public health and safety. The notice of violation shall:
- 10.2.1 Specify the actions or conditions which violate the requirements of this regulation or plans approved under this regulation;
- 10.2.2 Identify what needs to be done to correct the violation(s);
- 10.2.3 Specify a reasonable time frame within which the violation will be corrected;
- 10.2.4 Be provided to the property owner with a copy to be kept in the official records of the Raymond Code Enforcement Officer and Planning Board.
- 10.3 Cease and Desist Order. A cease and desist order may be issued to the property owner by the Code Enforcement Officer if they determines that conditions at the site are in violation of any of the requirements of this regulation and the violation is either:
- 10.3.1 An immediate threat to public health and safety; or

10.3.2 The property owner has failed to take corrective action(s) identified in a written notice of violation issued under Section 10.2 of this regulation within the time frame specified therein.

11. ADOPTION:

These regulations have been adopted by the Raymond Planning Board on May 17th, 2001.