

Town of Derry, NH

Stormwater System Design Regulations

Section 1. General provisions.

- A. Purpose. The purpose of these Regulations is to extend and support the Storm Water Ordinance.
- B. Administration The Director of the Department of Public Works (or his/her designee) shall administer the provisions of these Regulations.
- C. Interpretations of Provisions. The provisions of these Regulations with respect to the meaning of the technical terms and phrases, the regulations with respect to erosion and sediment control, and other technical matters shall be interpreted and administered by the Public Works Director, or his designee, acting in and for the town.
- D. Definitions For the purpose of these Regulations, the following definitions shall apply unless the context clearly indicates or requires a different meaning. Words used in the singular shall include the plural, and the plural shall include the singular; words used in the present tense shall include the future tense. The word "shall" is mandatory and not discretionary. The word "may" is permissive. Words not defined in this section shall be construed to have the meaning given by common and ordinary use as defined in the latest edition of Webster's Third New International Dictionary.
1. **Best Management Practices or BMPs** – A proven or accepted physical, structural, vegetative, and/or managerial practices that, when used singularly or in combination, prevent or reduce erosion, sediment, peak storm discharge, and pollution of water, that have been approved by the Town of Derry, and that have been incorporated by reference into these Regulations as if fully set out therein. (See Section 4 of the Stormwater Regulations for recommended Best Management Practices manuals).
 2. **Channel** - A natural or artificial watercourse with a definite bed and banks that conducts flowing water continuously or periodically.
 3. **Clean Water Act** - The Federal Water Pollution Control Act (33 U.S.C. § 1251 et seq.), and any subsequent amendments thereto.
 4. **Construction Activity** - Activities subject to the EPA Phase II Storm Water Program and the NPDES General Construction Permits. These include construction projects resulting in land disturbance. Such activities include but are not limited to clearing and grubbing, grading, excavating, and demolition.

5. **Contaminant** - Any physical, chemical, biological, or radiological substance or matter in water.
6. **Department of Public Works (DPW)** - The Town of Derry Department of Publics Works and associated divisions including, but not limited to, Code Enforcement.
7. **Director of Public Works** - The chief administrator of DPW who is authorized to assign DPW staff to oversee the implementation of these Regulations and the Town of Derry's Storm Water Ordinance.
8. **Disconnected Impervious Cover** - Impervious cover that does not contribute directly to stormwater runoff from a site, but directs stormwater runoff to on-site pervious cover to infiltrate into the soil or be filtered by overland flow so that the net rate and volume of stormwater runoff from the disconnected impervious cover is not greater than the rate and volume from undisturbed cover of equal area
9. **Disturbed Area** – An area where the existing or natural soil cover (both vegetative and non-vegetative) and/or the existing soil topography has been changed or removed exposing the underlying soil, or vegetation has been covered. Activities resulting in disturbed areas include, but are not limited to development, redevelopment, demolition, construction, reconstruction, clearing, grading, filling, and excavation.
10. **Discharge** - To dispose, deposit, spill, pour, inject, seep, dump, leak or place by any means, or that which is disposed, deposited, spilled, poured, injected, seeped, dumped, leaked, or placed by any means including any direct or indirect entry of any solid or liquid matter into the municipal separate storm sewer system.
11. **Effective Impervious Cover** – Impervious cover that is not disconnected impervious cover.
12. **Erosion** - The detachment, movement, or removal of soil particles or rock fragments by the action of water, wind, ice or other geological or meteorological agents, whether naturally occurring or acting in conjunction with or promoted by anthropogenic activities or effects.
13. **Infiltration** – The process by which water enters the soil profile (seeps into the soil)
14. **Impervious Surface** – Land surface with a low capacity for soil infiltration, including but not limited to pavement, roofs, roadways, or other human structures, paved parking lots, sidewalks, driveways (gravel or paved), and patios.

15. **Industrial Activity** - Activities subject to NPDES Industrial Permits as defined in 40 CFR, Section 122.26 (b)(14).
16. **Land Disturbing Activity** - Any activity on property that results in a change in the existing soil cover (both vegetative and non-vegetative) and/or the existing soil topography. Land-disturbing activities include, but are not limited to, development, re-development, demolition, construction, reconstruction, clearing, grading, filling, and excavation.
17. **Maintenance** - Any activity that is necessary to keep a stormwater facility in good working order so as to function as designed. Maintenance shall include complete reconstruction of a stormwater facility if reconstruction is needed in order to restore the facility to its original operational design parameters. Maintenance shall also include the correction of any problem on the site property that may directly impair the functions of the stormwater facility.
18. **Maintenance Agreement** - A document duly executed and recorded in the Registry of Deeds that acts as a property deed restriction, and which provides for long-term maintenance of storm water management practices.
19. **Municipal separate storm sewer system (MS4)** - The conveyances owned or operated by the municipality for the collection and transportation of stormwater, including the roads and streets and their drainage systems, catch basins, curbs, gutters, ditches, man-made channels, pump-stations and storm drains.
20. **National Pollutant Discharge Elimination System Permit (NPDES permit)** - A permit issued pursuant to 33 USC § 1342(b) that authorizes the discharge of pollutants to waters of the United States, whether the permit is applicable on an individual, group, or general area-wide basis.
21. **Notice of Intent (NOI)** – Application to apply for coverage under the EPA’s General Permit for Construction Activities.
22. **Notice of Termination (NOT)** – Notice to end coverage under an NOI documenting completion of construction activities and final stabilization of the site identified under the NOI.
23. **Off-site Facility** - A structural BMP located outside the subject property boundary described in the permit application for land development activity.
24. **Peak flow** - The maximum instantaneous rate of flow of water at a particular point resulting from a storm event.

25. **Person** - Any and all persons, natural or artificial, including any individual, firm or association and any municipal or private corporation organized or existing under the laws of this or any other state or country.
26. **Pervious Surface** – Any material or structure on or above the ground that permits water to infiltrate into the underlying soil.
27. **Pollutant** - Anything which causes or contributes to pollution. Pollutants may include, but are not limited to: paints, varnishes, and solvents; petroleum hydrocarbons; automotive fluids; cooking grease; detergents (biodegradable or otherwise); degreasers; cleaning chemicals; non-hazardous liquid and solid wastes and yard wastes; refuse, rubbish, garbage, litter, or other discarded or abandoned objects and accumulations, so that same may cause or contribute to pollution; sediment; floatables; pesticides, herbicides, and fertilizers; liquid and solid wastes; sewage, fecal coliform and pathogens; dissolved and particulate metals; animal wastes; wastes and residues that result from constructing a building or structure; concrete and cement; and noxious or offensive matter of any kind.
28. **Pollution** - The contamination or other alteration of any water's physical, chemical or biological properties by the addition of any constituent and includes but is not limited to, a change in temperature, taste, color, turbidity, or odor of such waters, or the discharge of any liquid, gaseous, solid, radioactive, or other substance into any such waters as will or is likely to create a nuisance or render such waters harmful, detrimental or injurious to the public health, safety, welfare, or environment, or to domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses, or to livestock, wild animals, birds, fish or other aquatic life.
29. **Recharge** – The amount of water from precipitation that infiltrates into the ground and is not evaporated or transpired.
30. **Redevelopment** – The reuse of a site or structure with existing man-made land alterations. A site is considered a redevelopment if it has 35 percent or more of existing impervious surface, calculated by dividing the total existing impervious surface by the size of the parcel and convert to a percentage.
31. **Runoff** - That portion of the precipitation on a drainage area that is discharged from the area into the municipal separate storm water system.
32. **Sediment** - Solid material, both mineral and organic, that is in suspension, is being transported, or has been moved from its site of origin by air,

water, gravity, or ice and has come to rest on the earth's surface either above or below sea level.

33. **Sedimentation** - Soil particles suspended in storm water that can settle in streambeds and disrupt the natural flow of the stream.
34. **Soils Report** - A study of soils on a subject property with the primary purpose of characterizing and describing the soils. The soils report shall be prepared by a qualified soils engineer, who shall be directly involved in the soil characterization either by performing the investigation or by directly supervising employees.
35. **Stabilization/Stabilized** - Providing adequate measures, vegetative and/or structural, that will prevent erosion from occurring or reducing the soil erosion rate such that it approaches that of undisturbed soils. Soils which are disturbed will be considered stabilized and protected when covered with a healthy, mature growth of grass or a good covering of straw mulch (2 tons/acre). Mulch is only a temporary measure; ultimately, the site needs vegetation.
36. **Storm Water** - Storm water runoff, snow melt runoff, surface runoff, and street wash waters related to street cleaning or maintenance, infiltration and drainage.
37. **Storm Water Management** - The programs to maintain quality and quantity of storm water runoff to pre-development levels.
38. **Storm Water Management Facilities** - The drainage structures, conduits, ditches, storm sewers, and all device appurtenances by means of which storm water is collected, transported, pumped, treated or disposed.
39. **Storm Water Management Plan** - The set of drawings and other documents that comprise all the information and specifications for the programs, drainage systems, structures, BMPs, concepts and techniques intended to maintain or restore quality and quantity of storm water runoff to pre-development levels.
40. **Storm Water Pollution Prevention Plan (SWPPP)** - A plan that clearly describes appropriate control measures that include a description of all pollution control measures (i.e., BMPs) that will be implemented as part of the construction activity to control pollutants in stormwater discharges and describes the interim and permanent stabilization practices for the site.
41. **Storm Water Runoff** - Flow on the surface of the ground, resulting from precipitation and drainage consisting entirely of water from any form of

natural precipitation that is not absorbed or evaporated, and resulting from such precipitation.

42. **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.
43. **Structural BMPs** - Devices that are constructed to provide control of storm water runoff.
44. **Surface water** - Waters upon the surface of the earth in bounds created naturally or artificially including, but not limited to, streams, other watercourses, lakes and reservoirs.
45. **Total Impervious Cover** - The sum of Disconnected Impervious Cover plus Effective Impervious Cover
46. **Watercourse** - A permanent or intermittent stream or other body of water, either natural or man-made, which gathers or carries surface water.

Section 2. Application Requirements

- A. Any land owner or land operator subject to the General EPA permitting requirements described in Sections 5A and/or 5B of the Town of Derry Stormwater Ordinance or whose land disturbance or industrial activity is otherwise determined by the Director of Public Works to have the potential to
 - a. degrade the quality of the receiving waters into which the stormwater outfalls flow, including, without limitation, lakes, rivers, streams, ponds, wetlands, and groundwater of the Town, or
 - b. significantly increase post-development stormwater runoff or decrease groundwater recharge, or result in any non-point source pollution, or
 - c. introduce or cause to be introduced into the MS4 any discharge that causes or contributes to causing the Town to violate a state surface water quality standard, the Town's Phase II MS4 NPDES permit, or any state-issued discharge permit for discharges from its MS4,may, in addition to the requirements of the EPA General Construction Permit and/or Industrial General Permit or any individual or group NPDES permit issued for storm water discharges from the property or industrial facility, be required to comply with these Stormwater Control regulations

and to submit to the Director of Public Works for review and approval a SWPPP including any information so required by the Director to determine compliance with such regulations.

- B. Unless specifically excluded by these regulations, any landowner or operator who proposes to conduct a land disturbance activity (as described in Section 5A of the Storm Water Ordinance) and/or any Industrial activity discharges as outlined in Section 5B of the Storm Water Ordinance shall submit to the Department of Public Works for review and approval prior to any site clearing or construction or industrial activity to begin: a Storm Water Pollution Prevention Plan; a maintenance agreement if so required by the Director of Public Works and; a copy of the NOI;

- C. Within 30 business days of the receipt of the proposed SWPPP, including all documents as required by these Regulations, the Director of Public Works shall inform the applicant whether the SWPPP is approved or disapproved.

- D. If the storm water pollution prevention plan is disapproved, the applicant may revise the storm water pollution prevention plan. If additional information is submitted, the Director of Public Works shall have 30 business days from the date the additional information is received to inform the applicant that the SWPPP is either approved or disapproved.

- E. The Director of Public Works may require as a condition of SWPPP approval, a maintenance agreement by the property owner that may include covenants upon the property that ensures continued compliance with these regulations through proper maintenance of all stormwater control facilities required by the SWPPP. Such Agreement shall be recorded at the Registry of Deeds at the expense of the property owner.

Section 3. Waivers.

- A. General. Every applicant shall provide for storm water management as required by these Regulations, unless a written request is filed to waive this requirement. Requests to waive the storm water management program requirements shall be submitted to the Director of Public Works for approval.

- B. Conditions for waiver. The minimum requirements for storm water management may be waived in whole or in part upon written request of the applicant, provided that at least one of the following conditions applies:

1. It can be demonstrated that the proposed development is not likely to impair attainment of the objectives of these Regulations.
 2. Alternative minimum requirements for on-site management of storm water discharges have been established in a storm water management plan that has been approved by the Department of Public Works.
 3. Provisions are made to manage storm water by an off-site facility. The off-site facility must be in place and designed to provide the level of storm water control that is equal to or greater than that which would be afforded by on-site practices. Further, the facility must be operated and maintained by an entity that is legally obligated to continue the operation and maintenance of the facility.
- C. Downstream damage, etc. prohibited. In order to receive a waiver, the applicant must demonstrate to the satisfaction of the Department of Public Works that the waiver will not lead to any of the following conditions downstream:
1. Deterioration of existing culverts, bridges, dams, and other structures;
 2. Degradation of biological functions or habitat;
 3. Accelerated stream bank or streambed erosion or siltation;
 4. Increased threat of flood damage to public health, life or property.
- D. If no waiver is granted, the plans must be resubmitted with a storm water management plan.

Section 4. Stormwater Management BMP System Design Standards

- A. Temporary/Construction Stormwater Management - The following standards shall be applied and used to the maximum extent practical in planning for stormwater management and erosion control as related to construction: (These standards are in addition to requirements that may be found in this and other sections of the Land Development Control Regulations.)
1. Stormwater Design or BMP Manual - The municipality adopts as its stormwater design and best management practices (BMP) manual the following publications, which are incorporated by reference in this regulation as is fully set out herein, and copies of which are available for review at the Public Works Office:
 - a. "*Storm Water Management and Erosion Control Handbook for Urban and Developing Areas in New Hampshire*," (The "Green Book"), Rockingham County Conservation District, New Hampshire Department of Environmental Services, Soil Conservation Service (now Natural Resource Conservation Service), August 1992, as amended.
 - b. The Town of Derry's "*Land Development Control Regulations*".

- c. “*Best Management Practices for Routine Roadway Maintenance Activities in New Hampshire*” NH Department of Transportation, NH Department of Environmental Services, August 2001, as amended.
 - d. “*NHDOT Guidelines for Temporary Erosion and Sediment Control and Stormwater Management*”, NH Department of Transportation, NH Department of Environmental Services, NH Coastal Program - Office of State Planning, May 2002, as amended.
2. The following standards shall be applied in planning for stormwater management and erosion control:
- a. Whenever practical, natural vegetation shall be retained, protected or supplemented. The stripping of vegetation shall be done in a manner that minimizes erosion.
 - b. Appropriate erosion and sediment control measures shall be installed prior to soil disturbance.
 - c. The area of disturbance shall be kept to a minimum. Disturbed areas remaining idle for more than 30 days shall be stabilized.
 - d. 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.
 - e. Off-site surface water and runoff into disturbed 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.
 - f. Measures shall be taken to control 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 “*Storm Water Management and Erosion Control Handbook for Urban and Developing Areas in New Hampshire.*”
 - g. Priority should be given to preserving natural drainage systems including perennial and intermittent streams, wetlands, vernal pools, natural swales, and drainage ditches for conveyance of runoff leaving the project area.
 - h. 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.
 - i. Naturally occurring streams, channels, and wetlands shall be used for conveyance of runoff leaving the project only after appropriate sedimentation control measures have been employed.

B. Permanent Stormwater Management General Design Criteria - The following standards shall be applied in planning for stormwater management and erosion control as related to long-term management of municipal water quality in order to reduce and properly manage stormwater post-construction (These standards are in addition to requirements that may be found in this document and other sections of the Land Development Control Regulations.)

1. Maximum effective impervious cover, that is, impervious surfaces that contribute to stormwater leaving the site, shall be minimized to the extent practical but not to exceed 30 percent of a site as per the Land Development Control Regulations. Impervious surfaces may be disconnected from the stormwater drainage network, to reduce total effective impervious cover, through such techniques as infiltration or sheet flow over a pervious area.
2. Best management practice (BMP) techniques shall be used to meet the conditions below for control of peak flow and total volume of runoff, water quality protection, and maintenance of on-site groundwater recharge.
 - a. Stormwater management practices shall be selected to accommodate the unique hydrologic and geologic conditions of the site. Soil type should be factored into the stormwater management approach. The areas of a site with the best soils for infiltration should be preserved to maintain natural infiltration or set aside to be used for infiltrating stormwater generated elsewhere on the site.
 - b. The use of nontraditional and/or nonstructural stormwater management measures, including site design approaches to reduce runoff rates, volumes, and pollutant loads, are preferred and shall be implemented to the maximum extent practical. Such techniques include, but are not limited to, minimization and/or disconnection of impervious surfaces; development design that reduces the rate and volume of runoff; restoration or enhancement of natural areas such as riparian areas, wetlands, and forests; and use of practices that intercept, treat, and infiltrate runoff from developed areas distributed throughout the site (e.g., bioretention, infiltration dividers or islands, planters and rain gardens). Applicants shall demonstrate why the use of nontraditional and/or nonstructural approaches is not possible before proposing to use a traditional, structural stormwater management measures (e.g., stormwater ponds, vegetated swales).
 - c. The applicant shall demonstrate how the proposed control(s) will comply with the requirements of these regulations, including the control of peak flow and total volume of runoff, protection of water quality, and

recharge of stormwater to groundwater. The applicant must provide design calculations and other back-up materials necessary.

- d. Stormwater management systems shall, at the discretion of the Town, incorporate designs that allow for shutdown and containment in the event of an emergency spill or other unexpected contamination event as an added protection against contamination of surface waters or groundwaters when any of the following apply:
 - i. The site is located in commercial or industrial areas.
 - ii. The site is a land use area with higher pollutant loads as described in Subsection B7.
 - iii. The site is in drinking water supply areas.
- e. Stormwater management systems shall not discharge to surface waters, ground surface, subsurface, or groundwater within 100 feet of a surface water within a water supply intake protection area or a municipal, public, or community water supply well
- f. BMPs shall be designed to convey a minimum of the 25 year, 24-hour storm without damage to the stormwater management facility.

3. Protection of Natural Hydrologic Features and Functions

- a. Site disturbance shall be minimized and existing vegetation retained whenever possible.
- b. Soil compaction on site shall be minimized by using the smallest (lightest) equipment possible and minimizing travel over areas that will be revegetated (e.g., lawn areas) or used to infiltrate stormwater (e.g., bioretention areas). In no case shall excavation equipment be placed in the base of an infiltration area during construction.
- c. Development shall follow the natural contours of the landscape to the maximum extent possible to minimize grading.
- d. No ground disturbed as a result of site construction and development shall be left as exposed bare soil. All areas exposed by construction, with the exception of finished building, structure, and pavement footprints, shall be decompacted (aerated) and covered with a minimum thickness of four (4) inches of non-compacted topsoil, and shall be subsequently planted with a combination of living vegetation such as grass, groundcovers, trees, and shrubs, and other landscaping materials (mulch, loose rock, gravel, stone). Though not required, up to three (3) inches of bark mulch may be applied on top of the topsoil to further cover exposed soil.

- e. Priority shall be given to maintaining natural surface waters and systems, including, but not limited to, perennial and intermittent streams, wetlands, vernal pools, and natural swales.
 - i. Existing site hydrology shall not be modified so as to disrupt on-site and adjacent surface waters. The applicant must provide evidence that this standard can be achieved and maintained over time.
 - ii. Existing natural surface waters shall be protected by a 50 foot no disturbance, vegetated buffer.
 - iii. Where roadway or driveway crossings cannot be eliminated, disturbance to the natural surface water shall be minimized, there shall be no direct discharge of runoff from the roadway to the surface water with the exception of sheet flow, and the area shall be revegetated post-construction.
 - iv. Roadway and driveway crossings over streams shall meet the following design criteria to accommodate high flows, minimize erosion, and support aquatic habitat and wildlife passage:
 - (1) Natural stream bottoms
 - (2) Sized for 1.2 x bank-full stream width (i.e., the width of the stream during the 1½ year flow event)
 - (3) Passageways under roads shall be designed to maintain water velocity at a variety of flows that is comparable to flows of upstream and downstream segments of the natural stream.
4. Post-Development Peak Flow Rates and Total Runoff Volumes
- a. The applicant shall provide pre- and post-development peak flow rates. Any site that was wooded in the last five years must be considered undisturbed woods for the purposes of calculating pre-development peak flow rates.
 - b. Requirements for post-development peak flow rate and total runoff volume calculations shall be as per the Land Development Control Regulations Section 170-65 Stormwater Management Requirements unless waived by the Planning Board during site plan or subdivision plan review process.
 - c. Measurement of peak discharge rates shall be calculated using point of discharge or the down-gradient property boundary. The topography of the site may require evaluation at more than one location if flow leaves the property in more than one direction. Calculations shall include runoff from adjacent up-gradient properties.
 - d. The post-development total runoff volume shall be equal to 90 to 110 percent of the pre-development total runoff volume (based on a 2-year, 10-year, 25-year, and 50-year, 24-hour storms). Calculations shall include runoff from adjacent up-gradient properties.

5. Water Quality

- a. If more than 35% of the total area of the site will be disturbed or the site will have greater than 30 percent effective impervious cover, the applicant shall demonstrate that their stormwater management system will remove total suspended solids (TSS), floatables, greases, oils, and phosphorus to the maximum extent practical.
- b. Compliance with the recharge requirements under Subsection B.6. Recharge to Groundwater Section, consistent with the pretreatment and design requirements in Subsections 6.b and 6.c below, shall be considered adequate to meet the treatment standards specified in Subsection B.5.a
- c. Applicants not able to employ Subsection B.6 must be able to provide suitable documentation, including a pollutant loading analysis from an approved model, that the treatment standards specified in Subsection B.5.a will be met.

6. Recharge to Groundwater

Except where prohibited, stormwater management designs shall demonstrate that the annual average pre-development groundwater recharge volume (GRV) for the major hydrologic soil groups found on-site are maintained.

- a. For all areas covered by impervious surfaces, the total volume of recharge that must be maintained shall be calculated as follows:
 - i. $\text{REQUIRED GRV} = (\text{Total Impervious Cover}) \times (\text{Groundwater Recharge Depth})$

Where Total Impervious Cover is the area of proposed impervious cover that will exist on the site after development.

And where Groundwater Recharge Depth is expressed as follows:

USDA/NRCS Hydrologic Soil Group (HSG)	Groundwater Recharge Depth (inches)
A	0.40
B	0.25
C	0.10
D	Not required

Example: Applicant proposes 30,000 square foot parking lot over C soils.
 $\text{REQUIRED GRV} = 30,000 \times 0.10$
 $\text{REQUIRED GRV} = 250 \text{ ft}^3$

- ii. Where more than one hydrologic soil group is present, a weighted Groundwater Recharge Depth shall be computed.

- b. Pre-Treatment Requirements
 - i. All runoff must be pretreated prior to its entrance into the groundwater recharge device to remove materials that would clog the soils receiving the recharge water.
 - ii. Pretreatment devices shall be provided for each BMP, shall be designed to accommodate a minimum of one-year's worth of sediment, shall be designed to capture anticipated pollutants, and be designed and located to be easily accessible to facilitate inspection and maintenance.
- c. Sizing and design of infiltration (recharge) BMPs
 - i. All units shall be designed to drain within 72 hours from the end of storm. [NOTE: This is to address concerns about infiltration BMPs contributing to mosquito problems by preventing mosquitoes from successfully breeding]
 - ii. The floor of the recharge device shall be at least three feet above the seasonal high water table or bedrock.
 - iii. Soils under BMPs shall be scarified or tilled to improve infiltration.
 - iv. Infiltration BMPs shall not be located in areas with materials or soils containing regulated or hazardous substances or in areas known to DES to have contaminants in groundwater above ambient groundwater quality standards or in soil above site specific soil standards.
- d. Infiltration may be prohibited or subject to additional pre-treatment requirements under the following circumstances:
 - i. The facility is located in a well-head protection area or water supply intake protection area; or
 - ii. The facility is located in an area where groundwater has been reclassified to GAA, GA1 or GA2 pursuant to RSA 485-C and Env-DW 901; or
 - iii. Stormwater is generated from a "high-load areas" as described in the following section.

7. Land Uses with Higher Potential Pollutant Loads

- a. The following uses or activities are considered "high-load areas," with the potential to contribute higher pollutant loads to stormwater, and must comply with the requirements set forth in subsections b, c, and d below:
 - i. Areas where regulated substances are exposed to rainfall or runoff; or
 - ii. Areas that typically generate higher concentrations of hydrocarbons, metals, or suspended solids than are found in typical stormwater runoff, including but not limited to the following:
 - (1) Industrial facilities subject to the NPDES Multi-Sector General Permit (MSGP); not including areas where industrial activities do not occur, such as at office buildings and their associated parking facilities or in drainage areas at the facility where a certification of no exposure will always be possible [see 40CFR122.26(g)];"
 - (2) Petroleum storage facilities;
 - (3) Petroleum dispensing facilities;

- (4) Vehicle fueling facilities;
 - (5) Vehicle service, maintenance and equipment cleaning facilities;
 - (6) Fleet storage areas;
 - (7) Public works storage areas;
 - (8) Road salt storage and loading facilities;
 - (9) Commercial nurseries;
 - (10) Non-residential facilities having uncoated metal roofs with a slope flatter than 20%;
 - (11) Facilities with outdoor storage, loading, or unloading of hazardous substances, regardless of the primary use of the facility;
 - (12) Facilities subject to chemical inventory under Section 312 of the Superfund Amendments and Reauthorization Act of 1986 (SARA);
 - (13) Commercial parking areas with over 1,000 trips per day.
- iii. If a high-load area demonstrates, through its source control plan, the use of best management practices which result in no exposure of regulated substances to precipitation or runoff or release of regulated substances, it shall no longer be considered a high-load area.
- b. In addition to implementation of BMPs for designing site-specific stormwater management controls, uses included under subsection 7.a shall provide a stormwater pollution prevention plan (SWPPP), describing methods for source reduction and methods for pretreatment.
- c. Infiltration of stormwater from high-load areas, except commercial parking areas, is prohibited. Infiltration, with appropriate pre-treatment (e.g., oil/water separation) and subject to the conditions of the SWPPP, is allowed in commercial parking areas and others areas of a site that do not involve potential “high-load” uses or activities (e.g., where a certification of “no exposure” under the MSGP may be possible).
- d. For high-load areas, except commercial parking areas, filtering and infiltration practices, including but not limited to, sand filters, detention basins, wet ponds, gravel wetlands, constructed wetlands, swales or ditches, may be used only if sealed or lined.
8. Parking
- a. Snow may not be plowed to, dumped in, or otherwise stored within fifteen (15) feet of a wetland or waterbody, except for snow that naturally falls into this area. Snow storage areas shall be shown to comply with these requirements.
- b. At the discretion of the Planning Board during site plan review, any additional/overflow parking spaces so approved by the Planning Board may be required to be constructed of a pervious surface (i.e. grass, pervious asphalt, pervious pavers).

9. Redevelopment

- a. Redevelopment of previously developed sites must meet the stormwater management standards set forth herein to the maximum extent possible as determined by Public Works review during the Planning Board approval process. To make this determination the Planning Board shall consider the benefits of redevelopment as compared to development of raw land with respect to stormwater.
- b. Redevelopment activities shall not infiltrate stormwater through materials or soils containing regulated or hazardous substances.
- c. Redevelopment of a site shall not involve uses or activities considered “high-load areas” unless the requirements under Subsection 7 are met.

10. Operation & Maintenance Plan

- a. All stormwater management systems shall have an operations and maintenance (O&M) plan to ensure that systems function as designed. This plan shall be reviewed and approved as part of the review of the SWPPP. Execution of the O&M plan, in addition to its requirement under these regulations, shall be considered a condition of approval of any associated subdivision or site plan approval by the Planning Board. If the stormwater management system is not dedicated to the city/town pursuant to a perpetual offer of dedication, the Planning Board may require an applicant to establish a homeowners association or similar entity to maintain the stormwater management system. For uses and activities under Subsection 7, the O&M plan shall include implementation of the SWPPP.
- b. The stormwater management system owner is generally considered to be the landowner of the property, unless other legally binding agreements are established.
- c. The O&M plan shall, at a minimum, identify the following:
 - i) Stormwater management system owner(s); (For subdivisions, the owner listed on the O&M plan shall be the owner of record, and responsibilities of the O&M plan shall be conveyed to the party ultimately responsible for the road maintenance, i.e., the Town of Derry should the road be accepted by the Town, or a homeowners association or other entity as determined/required under other Sections above.)
 - ii) The party or parties responsible for operation and maintenance and implementation of the SWPPP;
 - iii) A schedule for inspection and maintenance;

- iv) A checklist to be used during each inspection;
- v) The description of routine and non-routine maintenance tasks to be undertaken;
- vi) A plan showing the location of all stormwater management facilities covered by the O&M plan; and,
- vii) A certification signed by the owner(s) attesting to their commitment to comply with the O&M plan.

11. Recording:

- a. The owner shall provide covenants for filing with the registry of deeds in a form satisfactory to the Director of Public Works, which provide that the obligations of the operations and maintenance plan run with the land.
- b. The owner shall file with the registry of deeds such legal instruments as are necessary to allow the town or its designee to inspect or maintain the stormwater management systems for compliance with the O&M plan.

12. Modifications:

- a. The owner shall keep the O&M plan current, including making modifications to the O&M plan as necessary to ensure that BMPs continue to operate as designed and approved.
- b. Proposed modifications of O&M plans including, but not limited to, changes in inspection frequency, maintenance schedule, or maintenance activity along with appropriate documentation, shall be submitted to the Director of Public Works for review and approval within thirty (30) days of change.
- c. The owner must notify the DPW within thirty (30) days of a change in owner or party responsible for implementing the plan.
- d. The DPW may, in its discretion, require increased or approve decreased frequency of inspection or maintenance or a change in maintenance activity. For a reduced frequency of inspection or maintenance, the owner shall demonstrate that such changes will not compromise the long-term function of the stormwater management system.
- e. The DPW shall notify the owner of acceptance of the modified plan or request additional information within sixty (60) days of receipt of proposed modifications. No notification from the DPW at the end of sixty (60) days shall constitute acceptance of the plan modification. The currently approved plan shall remain in effect until notification of approval has been issued, or the sixty (60) day period has lapsed.

13. Record Keeping

- a. Parties responsible for the operation and maintenance of a stormwater management system shall keep records of the installation, maintenance and repairs to the system, and shall retain records for at least Three (3) years.
- b. Parties responsible for the operation and maintenance of a stormwater management system shall provide records of all maintenance and repairs

to the Director of Public Works or his designee (i.e., Code Enforcement Officer, Town Council), during inspections and/or upon request.

Section 5. Notification of Accidental Discharges and Spills

- A. Notification - As outlined in Section 9 of the Storm Water Ordinance.
- B. Release Reporting - Any person in charge of any facility, vehicle, or other source of any spilling, leaking, pumping, pouring, emitting, emptying, discharging, escaping, leaching, dumping, disposing or any other release of any substances that may flow, leach, enter, or otherwise be introduced into the MS4 or waters of the United States, shall immediately telephone and notify the Town of Derry. Substances include any reportable quantity as outlined in 40 CFR Part 302; any extremely hazardous substance as established under 40 CFR Part 355, any oil that causes a film or sheen or discolors the surface of the water or causes a sludge emulsion to be deposited beneath the surface of the water or any harmful quantity of pollutant.
- C. Immediate Notification Required - The immediate notification to the Department of Public Works or the authorized enforcement agency in person or by phone, or facsimile is required no later than 24 hours of any incident outlined in Section 8.B, of the nature, quantity and time of occurrence of the discharge. Notifications in person or by phone shall be confirmed by written notice addressed and mailed to the Director of Public Works or his/her duly authorized agent within three business days of the phone or in person notice and shall include the chemical or substance name, exact location of release, time and duration of release, estimated quantity and concentration of release, source of release, precautions that should be taken in regards to release, steps taken to contain and /or clean up release and the telephone numbers of the person or persons to be contacted for further information.
- D. If the discharge of prohibited materials emanates from a commercial or industrial establishment, the owner or operator of such establishment shall also retain an on-site written record of the discharge and the actions taken to prevent its recurrence. Such records shall be retained for at least three years. Said person shall also take immediate steps to ensure no recurrence of the discharge or spill. This information shall also be submitted in written form within five days of the incident unless waived by a representative of the Town.
- E. Liability for Damage and Loss - The notifications required in Section 8.B and (3) shall not relieve the responsible person of any expense, loss, damage or other liability which may be incurred as a result of the release.

This includes liability for damage to the Town, to natural resources, or to any other person or property; nor shall such notification relieve the responsible person of any fine, penalty, or other liability which may be imposed pursuant to the Storm Water Ordinance, these Regulations, or to state or federal law. Any person responsible for a release shall comply with all state, federal, and any other local requiring reporting, cleanup, containment, and any other appropriate remedial action in response to the release. The responsible person shall reimburse the Town for any cost incurred by the Town in responding to the release.

- F. Failure to provide notification of a release as provided above is a violation of the Town of Derry's Storm Water Ordinance.

Section 6. Eligibility

EPA reissued the Construction General Permit (CGP) on July 1, 2003. The reissued CGP now covers both the Phase I large construction sites greater than five acres and "Storm Water Associated with Small Construction Activity," which includes construction sites from one to five acres (or smaller than one acre if part of a larger "common plan of development or sale" that totals one acre). The permit contains conditions to protect endangered species and historic properties and requires the owner and operator of the construction site to, among other things:

- Develop and implement a Storm Water Pollution Prevention Plan (SWPPP).
- Post a visible public notice at the main entrance of the construction site (or if infeasible, at a local public building) containing confirmation of permit coverage and details on where the SWPPP may be viewed.
- As part of the SWPPP, develop a site map showing surface waters, disturbed areas, and best management practices (BMPs), etc.
- Have "qualified personnel" inspect all erosion and sediment control BMPs, maintain BMPs after storm events and keep records in the SWPPP of all inspections and maintenance performed.
- Control wastes, such as discarded building materials, concrete truck washout, and sanitary wastes.
- File a Notice of Termination (NOT) form when the construction site is stabilized and revegetated.

Section 7. Severability.

Should any Section or provision of these regulations be declared by a court of competent jurisdiction to be unconstitutional or invalid, such decision shall not

affect the validity of these regulations as a whole, or any part thereof other than the part so declared to be invalid.