



Summary of Amendments to Env-Wq 1500 Rules (Effective August 15, 2017)
New Hampshire Department of Environmental Services (NHDES)
Alteration of Terrain

Revised Alteration of Terrain rules (Env-Wq 1500) went into effect on August 15, 2017. Some of the more significant changes that could affect designs and/or application submittals are summarized below. This is a partial, annotated summary. It is recommended that that you review the rules to ensure a complete understanding of the revisions.

Definition of Normal Agricultural Operations (Env-Wq 1502.44)

Some criteria defining normal agricultural options were amended/added:

- the activities would not result in conversion of more than 10,000 square feet **from pervious to impervious cover**; or
- the activities are part of a farm conservation plan that has been approved by the NRCS, in which case not more than 20,000 square feet may be converted from pervious to impervious cover.

Watersheds of chloride impaired waters (Env-Wq 1503.11(g))

If the project could result in a stormwater discharge to a surface water impaired for chloride, a chloride management plan must be submitted with the application and implemented by the permittee. These watersheds will be added to the “Alteration of Terrain Permit” screening layers on the OneStop GIS Data Mapper.

Nitrogen or Phosphorous (Env-Wq 1503.11(h) and (i))

The applicant must submit information to demonstrate that the project will not cause a net increase of nitrogen or phosphorous if:

- the project could result in a stormwater discharge to a surface water impaired for phosphorus and/or nitrogen, or
- the project could result in a stormwater discharge to a Class A surface water or to an Outstanding Resource Water.

The impaired watersheds and the Outstanding Resource Waters will be added to the “Alteration of Terrain Permit” screening layers on the OneStop GIS Data Mapper. The AoT program is researching policies regarding access to Class A waterbodies on OneStop.

Projects in the Coastal or Great Bay Region – climate change (Env-Wq 1503.08(l))

If the project is within the coastal or Great Bay region, and infrastructure has a projected lifespan beyond 2050, the applicant shall submit such additional information as is necessary to address projected storm surge, sea-level rise, and precipitation events identified in the 2014 Science and Technical Advisory Panel Report, Sea-Level Rise, Storm Surges, and Extreme Precipitation in Coastal New Hampshire: Analysis of Past and Projected Future Trends, prepared by the Coastal Risks and Hazards Commission and available at <http://www.nhcrhc.org/stap-report/>. In addition to demonstrating through narrative that sea level rise and storm surge have been considered in the design process, this includes the requirement that precipitation amounts be increased by 15%.

The 17 Coastal and Great Bay communities will be added to the “Alteration of Terrain Permit” screening layers on the OneStop GIS Data Mapper.

Blasting (Env-Wq 1503.11 (k))

Blasting Plans must be submitted with the application, identifying

- where the blasting is anticipated to occur;
- the estimated quantity of blast rock in cubic yards; and
- site-specific blasting best management practices based on Env-Wq 1510;

Groundwater Monitoring: The rule indicates that this requirement applies when public drinking water wells are located within 2000 feet of proposed blasting sites. However, under the requirements of *Env-Wq 404 Underground Injection Control Rule*, DES has the authority to require groundwater monitoring when blasting is performed within 2000 feet of any drinking water well. DES will implement this requirement through the AoT permitting process, requiring the plans and monitoring when blasting is to occur within 2000 feet of public and/or private drinking water wells.

The new **Part Env-Wq 1510** establishes Best Management Practices for Blasting for protection of groundwater (loading practices, muck and rock management, spill prevention measures and spill mitigation, fueling and maintenance of construction equipment, etc.)

Fee increases (Env-Wq 1503.32)

The fee for projects requiring an EAP permit when less than 100,000 SF of area (50,000 SF/protected shoreline) is proposed for disturbance is now 500 plus \$0.005 per SF of disturbance. This includes permits for additional disturbances that don't meet the criteria for permit amendment.

Permit amendment fees are now \$250 plus \$0.005 per SF of disturbance associated with the amendment request.

Deed restrictions, easements (Env-Wq 1504.07)

When drainage easements will be required, the deed language shall be presented to DES for review with the application. This will be necessary, for instance, when on-lot BMPs are proposed, such as roof runoff infiltration systems, or when drainage structures/BMPs are located on individual lots.

The permit holder shall record the easement(s) and/or deed restrictions and provide copies of the recorded documents to the department prior to offering any of the property for sale or otherwise developing the property.

No deed restrictions or easements related to a shared stormwater management system can be created on any lot that will be sold for a private residence that will not directly contribute stormwater to the system.

Hydrologic analysis report (Ev-Wq 1504.09)

Reports must include errors messages, warnings, or other such indicators, if this option is available in the software being used.

Infiltration feasibility reports (Env-Wq 1504.13)

Reports must include copies of data sheets for measuring infiltration rates.

Erosion Control Notes (Env-Wq 1504.16)

Notes required on the plans are now listed in this new rule. In addition to the standard notes that have been used for the past several years, there is one new note relative to temporary runoff storage (traps, basins, etc.).

Cold weather stabilization (Env-Wq 1505.06)

Erosion control measures for winter construction now in effect from October 15 (previously November 30) through May 1.

Establishing vegetation (Env-Wq 1506.02)

Seeding of disturbed areas is to occur by September 15 (in the same year of disturbance).

Only low phosphate, slow release nitrogen fertilizer can be applied within 100 feet of any river, stream, pond or lake. Designers should review any standard fertilizer notes for compliance with this requirement.

Temporary stormwater diversion (Env-Wq 1506.12)

This new rule identifies practices that must be employed during construction (diversion channels, temporary basins and trenches, etc.).

Areas where filtering, infiltration and groundwater recharge are prohibited (Env-Wq 1507.02)

A new rule prohibits groundwater recharge, infiltration and filtration practices (treatment and certain pre-treatment practices) in certain areas. This is summarized in one rule, now, instead of listing the prohibitions under the rules for each individual practice. There are some changes in the prohibitions, most notably regarding high-load areas and petroleum dispensing areas have been revised.

Long term maintenance responsibilities – Homeowner's Associations (Env-Wq 1507.07)

If the property is a residential development for which a homeowners' association will be established, the homeowners' association shall become the responsible party as specified in the documentation that establishes the association.

If the homeowners' association is dissolved or otherwise discontinued, the individual homeowners shall have joint and several liability for all I&M obligations. (This requirement should be specified in Inspection & Maintenance Manuals.)

Stormwater ponds (Env-Wq 1508.03)

If stormwater ponds have extended detention (i.e. the water quality volume is greater than the volume of the permanent pool), the extended detention volume must be no more than 50% of the WQV. (Micropool extended detention ponds will no longer be allowed for AoT projects.)

To account for seasonal variation of the groundwater table, the floor of the stormwater pond must be at least 5 feet below the seasonal high water table. Note that the rule was adopted based on incorrectly drafted language. The elevation of lowest outlet should be no less than 3 feet above the pond bottom to maintain a minimum depth of 3 feet. If the pond bottom is not 5 feet or more below SHWT, a hydrologic budget must be performed. DES will consider lining the pond with an impermeable liner to maintain the target water level as an option to requiring a hydrologic budget or setting the pond bottom 5 feet or more below SHWT.

Stormwater wetlands (Env-Wq 1508.04)

The outlet shall discharge at a maximum flow rate of twice the average flow rate, where the average flow rate is calculated as the extended detention volume divided by 24 hours. (This requirement was included in the calculations of the BMP worksheet, and has now been codified by rule.)

The permanent pool elevation shall be based on an outlet control structure at an elevation 2 feet below the SHWT or a hydrologic budget shall be prepared demonstrating the target elevation can be maintained.

Gravel wetlands (Env-Wq 1508.05)

As clarification, the requirements for a gravel wetland have been separated from the rules for other types of stormwater wetlands.

Infiltration practices (Env-Wq 1508.06)

If the soil infiltration rate is above 10 inches per hour, and it is proposed to amend the soil to achieve an infiltration rate of 10 inch per hour or less, the soil must be amended to a depth of at least 24”.

Filtering practices (Env-Wq 1508.07)

If underdrains are required due to low permeability soils underlying the practice, they shall have a maximum spacing of 25 feet center-to-center.

Sediment forebays (Env-Wq 1508.11)

Sediment forebays for gravel wetland systems shall be designed to drain within 72 hours of storm events.

Detention basins (Env-Wq 1508.17)

Detention basins shall not receive untreated stormwater unless they are lined. (The combination of a detention pond with downstream treatment, which was allowed in the past, is not protective of groundwater quality. Unlined detention ponds allow for infiltration, even though this is not considered in the hydraulic analysis. Therefore, ponds that don't meet the requirements of treatment BMPs must receive only treated water, or be lined.)

The lowest orifice must be 6” above the basin floor. This is to minimize discharge of sediment from the basin floor.

The detention basin must be able to discharge the 100-year flow without overtopping the embankment.

Conveyance swales (Env-Wq 1508.19)

They must be sized to convey the 50-year, 24-hour storm.

Certification of completion of work (Env-Wq 1503.21)

At completion of construction, a letter must be submitted by the permit holder and the qualified engineer, if the project required plans and specs by a qualified engineer, certifying completion in accordance with approved plans and specs, or that deviations, if any, did not require an amended or new permit. Previously, this letter was required to be submitted by the permit holder only.

Deviation from approved plans (Env-Wq 1503.21)

The conditions under which deviations from plans can occur without the need for an amended permit or new permit now includes the *additional* criteria that:

- the revised design will not decrease any buffers required by law or established by a permit or other approval, and
- no change is made to a stormwater management system that adds, removes or relocates any treatment, pretreatment, groundwater recharge or detention practice.

Amended permits (Env-Wq 1503.22)

The conditions under which modifications to a project can be made under an amended permit now includes the *additional* criteria that:

- the change does not add more than one stormwater treatment practice, stormwater conveyance, or groundwater recharge practice, AND
- the peak inflow rate to any component of the existing stormwater management system has not increased from that as originally approved by more than 1 cfs during the 2-year 24-hour storm.