

**REGULATIONS FOR PROJECT PLAN AND SUBDIVISION APPROVAL**

Adopted by the Norfolk Board of Health – July 3, 1988, Amended January 16, 1991 & September 20, 2010

**BOARD OF HEALTH APPROVAL OF A PROPOSED PROJECT PLAN OR SUBDIVISION PLAN WILL BE BASED ON THE FOLLOWING PROCEDURE AND CRITERIA:**

**WATER SUPPLY:**

The proposed source of water supply shall provide water of a quantity and quality in accordance with Town, State, and Federal water supply standards for domestic use. In the case of sites to be served by on - site wells, a hydrogeological evaluation shall be performed by a qualified engineer or geologist, at the expense of the applicant, to be reviewed by the Board of Health for this determination. Reference is made to the Board of Health Regulations "Minimum Sanitation Standards for Private or Public Water Supply", which must be complied with.

**SEWAGE DISPOSAL:**

The applicant shall submit evidence that:

The proposed location of the subdivision has soil conditions suitable for the subsurface disposal of sanitary or other applicable types of waste - waters in accordance with the regulations of the Board of Health along with all applicable state and federal regulations.

Disposal of wastewaters shall not degrade the ground or surface waters in a manner inconsistent with their proposed use. For any residential subdivision having a minimum design wastewater flow of 5000 gallons per day, a hydrogeological evaluation shall be performed by a qualified engineer or geologist, at the expense of the applicant, to be reviewed by the Board of Health for this determination.

**STORM WATER AND RUNOFF MANAGEMENT:**

These regulations for storm water management are intended to protect the public and environmental health by providing adequate protection against pollutants, flooding, siltation, and other drainage problems.

The Board of Health shall determine for each subdivision plan or project plan (site plan) whether protection of public and environmental health necessitates review and approval of stormwater management measures and drainage system improvements by the Board of Health or whether such review and approval may be delegated to the Planning Board.

The storm water management design shall include a control strategy and plan for Source Control and Best Management Practice (BMP) for any particular development or project and shall accomplish the following goals.

- A. Reproduce, as nearly as possible, the hydrological conditions in the ground and surface waters prior to development.

- B. Reduce storm water pollution to the "Maximum Extent Possible" (MEP) using Best Management Practices (BMPs).
- C. Have an acceptable future maintenance burden.
- D. Have a neutral effect on the natural and human environment.
- E. Be appropriate for the site, given physical restraints.
- F. Provide a sufficient level of health and environmental protection during the construction phase.

An acceptable storm water management plan shall

1. Capture and treat water quality volume which is 1.0 inches of runoff multiplied by the total post-development impervious surface within the project area for discharges from land with higher pollutant loads, within an area with a rapid infiltration rate ( $> 2.4$  in./hr.), within a Zone II or IWPA, and near or to critical areas as defined in the Massachusetts Stormwater Handbook for Standard 4 and 0.5 inches of runoff multiplied by the total post-development impervious surface within the project area for all other discharges.
2. Not cause an increase or decrease in either the total volume of runoff discharged offsite, or total rate of runoff discharged offsite, as compared with the respective discharge offsite prior to the development. Such condition shall be required for storms of 1, 10, 50 and 100 year frequency events.
3. Include source controls and design of BMPs and Infiltration and Detention structures in accordance with procedures acceptable to the Board of Health such as are described in the following publications.
  - a. "Controlling Urban Runoff - A Practical Manual for Planning and Designing urban BMP's - Department of Environmental Programs - Metropolitan Washington Council of Governments"
  - b. "Storm Water Detention for Drainage, Water Quality, and CSO Management" - Peter Stahre and Ben Urbonas - Prentice Hall - 1990
  - c. ASCE Publications entitled "Design of Urban Runoff Quality Controls", 1988 and "Urban Runoff Quality - Impact and Quality Enhancement Technology", 1986
  - d. "Urban Surface Water Management" - Stuart G. Walesh - John Wiley & Sons Inc. - 1989

- e. "Underground Disposal of Storm Water Runoff - Design Guidelines Manual" February 1980 of the Federal Highway Administration - Department of Transportation
  - f. "Erosion and Sediment Control in Site Development - Massachusetts Conservation Guide - Volume 1".
4. In cases where runoff infiltration cannot, in the opinion of the Board of Health, be appropriately implemented because of the possibility of contamination of water supply, or because of extremely poor infiltrative and permeability characteristics of the soil, the requirement as regards volume may be waived by the Board of Health, provided the applicant provides such additional preventive measures to prevent any increase in elevation or duration of downstream flood elevations. Such additional measures may be, but are not restricted to, the construction of compensatory flood storage facilities and/or the creation of additional wetlands.
- Poor infiltrative and permeability conditions are defined as a soil permeability of less than  $1 \times 10^{-4}$  centimeters per second. Unless, in the opinion of the Board of Health, such testing is not applicable for a particular site, all permeability tests shall be in-situ field bore hole test for permeabilities in the acceptable range as specified above. If permeability testing is desired to be performed in soils of lesser permeability, laboratory tests for hydraulic conductivity shall be performed on undisturbed samples by the Falling Head Permeability Test using flexible membrane triaxial test cells with back pressure (Army Corps of Engineering Manual EM 1110-2-1906 Appendix VII).
5. If detention or retention ponds are utilized, slopes shall be no steeper than 3 horizontal to 1 vertical. The Board reserves the right to limit the maximum design water depth to four (4) feet maximum for the 25-year design storm except in permanent ponds. Minimum bottom slope for "dry" detention areas shall be two (2) percent. A vehicle accessible maintenance berm, a minimum of 15 feet wide (or such minimum width as recommended in the current edition of the Massachusetts Stormwater Handbook) shall be provided. Detention or retention areas shall not be constructed within existing stream bed or wetland areas.
6. Not result in channelization of surface runoff offsite without the written consent of the owner or the land affected, in the form of a permanent grant of easement, recorded at the Registry of Deeds.
7. Include hydrologic and hydraulic calculations and data to support the proposed design for the runoff drainage system. Both volume and flow rate of runoff, before and after development, must be clearly stated and shall be in accordance with the specifications previously designated herein. Calculations shall be performed using the most recent procedures of the U.S.D.A. Soil Conservation Service such as are described in National Engineering handbook-Section 4-Hydrology (SCS 1985), TR-20 "Computer Program for Project Formulation-Hydrology" (SCS 1983), and 1986). Structure design shall comply with the standards of USDA SCS Publication TR-60 for containments for detention and

retention areas or other designated references. Additional design guidelines may be on file with the Board of Health.

## SUBMITTAL REQUIREMENTS

### PRELIMINARY PLAN OR PROJECT PLAN

At the time of a submittal of a preliminary plan or a project site plan to the Planning Board, a copy of that plan, complete in all respects, along with the required fee, shall be submitted to the Board of Health, including additional information which is required for Board of Health approval, such as, but not restricted to:

1. Proposed Source of Water Supply
2. Data for a sufficient number of test holes, soil logs, maximum ground water elevations, and properly conducted percolation tests as defined in these Rules and Regulations to:
  - A. Demonstrate clearly that the soil conditions are generally suitable for subsurface sewage disposal and will meet the needs of the subdivision.
  - B. To determine this pattern of ground water flow.
3. A topographical map of the property, with contours referring to NGVD 29, showing the location and elevation of all test holes, how the surface drainage is to be handled, including nearby affected areas, and all pertinent physical features, including ponds, swamps, wetlands, water supplies, seasonal watercourses, swales, areas of ledge and rock. Also, an overlay of Flood Plain, Wetland Zones, Aquifer Zones, Drainage Watershed areas, USDA Soil Map Characterization for soil type and hydrologic group, and USDA Soil Limitations for Septic Tank Sewage Disposal.

The Board of Health will give only a general approval, conditional approval or disapproval of the Preliminary Plan. Such action shall not necessarily constitute approval or disapproval of the definitive plan or any specific lot shown thereon. While state law does not require submittal of a Preliminary Plan to the Board of Health and it is therefore optional, such submittal is required if it is expected that the Board of Health will make a report to either the applicant or the Planning Board at the time of Preliminary Plan evaluation by the Town.

Timely submittal to the Board of Health will give an opportunity for the applicant and other Town agencies to define the requirements and concerns of the Board of Health early in the planning stage. Failure to submit the required material to the Board of Health will result in either no report at that time or an adverse finding.

### DEFINITIVE PLAN OR PROJECT PLAN:

The APPLICANT shall submit the Site Plan to the Board of Health and in the case of a Definitive Plan, shall follow the procedure for submission to the Board of Health according to

M.G.L. Chapter 41 Section 81U. In order for the plan to be considered "complete", it shall include all items required by these Rules and Regulations, including an appropriate fee which may be set from time to time by the Board of Health. Incomplete submittals shall be returned as incomplete forthwith to the applicant, following a vote of disapproval by the Board of Health, without review and the Board of Health shall notify the Town Clerk and the Planning Board of that action. Such action by the Board of Health shall constitute a report disapproving the plan as not reviewable. The plan must then be resubmitted and be subject to Board of Health review to demonstrate that it meets all Board of Health requirements before it shall be considered approved.

The submittal to the Board of Health shall include:

1. All items required to be submitted to the Planning Board.
2. Drainage calculations and geotechnical information including soils and groundwater test data in compliance with requirements of the "Rules & Regulations for the Subdivision of Land and Site Plan Approval of the Town of Norfolk Planning Board." Stormwater basin analysis shall be based upon Technical Release 20 (TR-20) utilizing minimum 24 hour rainfall equal to or greater than the following:

Minimum 24 Hour Rainfall

- 2-year frequency storm event – 3.2 inches
- 10-year frequency storm event – 4.8 inches
- 25-year frequency storm event – 5.5 inches
- 50-year frequency storm event – 6.2 inches
- 100-year frequency storm event – 6.8 inches

The Board of Health may review this information or may delegate review to the Planning Board.

3. All items as described above which must be submitted for the Project Plan or Preliminary Plan.
4. Sufficient data to demonstrate clearly to the Board of Health that each and every lot is suitable for the subsurface disposal of sewage. Failure to do so may result in findings by the Board of Health that such affected lots cannot be used for building sites without injury to the public health.
5. All data required for the storm water management.
6. Evidence to demonstrate clearly to the Board of Health that water supply shall be adequate as previously designated herein.

Failure to submit adequate or correct data or information as required will constitute grounds for Board of Health disapproval of the site as a whole or of individual lots therein.

Any approval of the subdivision or a site plan by the Board of Health shall not be treated as, nor deemed to be, an approval or a permit for, an individual wastewater system on any lot contained therein.