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**TITLE 5 MAXIMUM FEASIBLE COMPLIANCE  
POLICY**  
**(Revised April 2021)**

TO PROTECT PUBLIC HEALTH, SAFETY AND THE ENVIRONMENT FOR SEPTIC SYSTEM  
UPGRADES IN AREAS SUBJECT TO NITROGEN LOADING LIMITATIONS

**PURPOSE**

The purpose of this policy is to protect public health, safety and the environment in Westport and secure maximum feasible compliance with Title 5 by requiring:

- 1) Use of nitrogen reducing septic systems and/or
- 2) Deed restrictions on the number of bedrooms

for undersized lots and other nitrogen sensitive areas in order to protect drinking water systems and nitrogen-impaired surface waters from excess nitrogen contamination.

**BACKGROUND**

The State Sanitary Code (Title 5) establishes limits on a septic system's flow design relative to the size of the lot if a drinking water well is located on the same lot, or if the lot is located within the protective zone of a public water supply. The general rule is a lot should have 10,000 sq. ft. of land for each bedroom (so a maximum of 4 bedrooms can be constructed on a one-acre lot).

Standard Title 5 systems are not designed to remove nitrogen compounds contained in human sewage. It is estimated that the raw effluent in septic system contains between 38 to 70 mg/L of nitrogen while the safe drinking concentration is 10 mg/L. Excess nitrogen in drinking water can have serious adverse health impacts, especially on infants and pregnant women. Where drinking water wells and septic systems are near each other, there is an increased risk that waste nitrogen in septic effluent leaching into the groundwater will be drawn up into the drinking water well, even where the well is set back from the system. Excess nitrogen loading can also further degrade surface waters, such as the Westport River that have been ecologically impaired.

**ENHANCED NITROGEN REMOVAL**

Where a system has been determined to be in failure or is otherwise not in conformance with Title 5, the Board of Health has the authority to require enhanced nitrogen removal where it determines it is "necessary to protect public health and safety and the environment" or achieves the goal of full or maximum feasible compliance.<sup>1</sup>

The Board has determined that where the design flow of a proposed replacement or upgrade of an existing system exceeds the nitrogen loading limitations as set in 310 CMR 15.214, the proposed system must incorporate enhanced nitrogen removal, unless the applicant seeks a waiver and provides sufficient information, including well water quality test(s), to the Board upon which it can make a site-specific finding that:

- a. Enhanced nitrogen removal is not necessary to protect public health or the environment;
- b. Installation of an enhanced nitrogen removal system is not economically feasible; or
- c. A Facility Aggregation Plan with sufficient nitrogen credits is approved by the Board in accordance with 310 CMR 15.216.

In evaluating a MFC waiver request based on site conditions, the Board may consider, without limitation:

1. Drinking water quality test results from the site and abutters' wells. Nitrate concentration in excess of 5 mg/L is considered an elevated level.
2. Site hydrology and the location of the drinking well in relation to the soil absorption system (SAS). Wells hydraulically down gradient of the SAS are most likely to draw in septic contaminants from the groundwater.
3. System design flow volumes and lot size.
4. The depth of wells likely to be impacted by the proposed SAS.
5. Proximity of the system to nitrogen-impaired waters.
6. Necessity to issue waivers to accommodate an alternative system.

For MFC waivers for financial reasons, the Board will use \$10,000 as the default cost of adding nitrogen reducing components to a standard system in the absence of the applicant providing site-specific cost estimates that exceed the default amount. Relevant costs include the system's technology components and installation. If the applicant does not wish to adopt the default amount, a financial waiver request requires the submission of two independent estimates that compare the equipment and installation costs of a standard Title 5 system with the costs of an enhanced nitrogen reducing system.

In evaluating the economic feasibility, the Board will consider Mass DEP's Title V Interpretative Guidance: Consideration of Cost in Determining Maximum Feasible Compliance. In general, a nitrogen reducing system that costs less than 10% of the property's assessed value will be considered economically feasible. The use of the property for seasonal use or as rental property may also be considered in evaluating financial feasibility.

### **BEDROOM DEED RESTRICTION**

Where the existing system's design flow exceeds the site's nitrogen loading limit, the Board has determined that a bedroom deed restriction will minimize the likelihood of future modifications that increase the number of bedrooms and thereby the nitrogen load to the system. A deed restriction will also provide notice to future purchasers of the property and their mortgage lenders on the maximum number of bedrooms that are permitted.

The Board may waive the requirement for a deed restriction where:

1. The proposed new or replacement system reduces the nitrogen load to a level consistent with the allowable load for the square footage of the lot; OR
2. The Board approves a Facility Aggregation Plan with appropriate nitrogen credits in accordance with 310 CMR 15.216

*Nothing in this Policy shall operate to limit or restrict the Board of Health from imposing any conditions or other restrictions in its review and approval of an application to repair, design or construct and install an on-site septic system.*

## **WESTPORT BOARD OF HEALTH**

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<sup>i</sup> See, 310 CMR 15.003(2), 310 CMR 15.003(4), 15.003(1) and 310 CMR 15.404. See also, Mass DEP Guidance, BRP/DWM PeP-P99-5 Title 5 Program Guidance on System Upgrades in Areas Subject to Nitrogen Loading Limitations.