

Commonwealth of Massachusetts Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

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Town of Marshfield Board of Selectman Rebecca L. Tepper Secretary

> Bonnie Heiple Commissioner

August 16, 2024

Town of Marshfield, Select Board Attn: Mr. Michael Maresco, Town Administrator 870 Moraine Street Marshfield, MA 02050 RE: MARSHFIELD- Public Water Supply Ferry Street 40B Project

"Bridle Crossing"
Regulatory Guidance

Dear Mr. Maresco:

On July 15, 2024, the Massachusetts Department of Environmental Protection (MassDEP) received a letter from the Marshfield Select Board dated July 8, 2024, regarding a proposed 40B Housing Project off Ferry Street in Marshfield, Massachusetts. The Marshfield DPW also requested a similar review by MassDEP in a letter MassDEP received by email on July 19, 2024.

The Select Board has been asked by an article from a special town meeting to inquire of MassDEP whether construction of a large multi-building project with multiple septic systems within a Zone II of Marshfield's aquifer is consistent with the public water supply regulations. The article seeks to ensure regulatory compliance for the long-term Ground Water Supply Protection in Marshfield prior to any local permit issuance for the construction of this project.

Project Description

The proposed project is a 56 Unit, 88-bedroom apartment complex comprised of eight (8) buildings, each with seven (7) units, plus eight garage buildings, with one of these buildings containing an office. Each building will be serviced by its own nitrogen-reducing septic system. The buildings and septic systems are all to be located on adjacent, commonly owned lots totaling 10 acres. The project will include 32 one-bedroom, 16 two-bedroom, and 8 three-bedroom apartments.

Regulatory Review

<u>Drinking Water Regulations</u>: Septic systems and sanitary sewage treatment works are not prohibited from being sited within a Zone II by the Massachusetts Drinking Water Regulations, 310 CMR 22.00, specifically within the Groundwater Supply Protection section at 310 CMR 22.21, and more specifically within the Wellhead Protection Zoning and Nonzoning Controls at 310 CMR 22.21(2). Besides residential septic systems located throughout all the Zone II areas in Marshfield, several larger volume groundwater discharges are also located within the Zone IIs in Marshfield, specifically at Spyglass landing (12,600 gpd) in Zone II number 656; and Marshfield Public School (19,200 gpd), the Village at Marshfield (57,310 gpd), The Village at Proprietor's Green (25,000 gpd) and VERC Enterprises (5,800 gpd) in Zone II number 670.

There is a prohibition from removing "soil, loam, sand, gravel or any other mineral substances within four feet of the historical high groundwater table elevation...unless the substances removed are redeposited within 45 days of removal to achieve a final grading greater than four feet above the historical high water mark, and except for excavations for the construction of building foundations or the installation of utility works, or wetland restoration work..." at 310 CMR 22.21(2)(b)6. Impervious area restrictions are found at 310 CMR 22.21(2)(b)7.

The project must also comply with the MassDEP-approved local bylaws established to protect the water supplies.

<u>Title 5 - On-Site Sewage Treatment and Disposal Systems</u>: The Title 5 calculated flow for the project is 9,680 gallons per day (gpd), which is determined by multiplying 88 bedrooms with 110 gpd/bedroom. However, this number does not include wastewater flow from the office. A calculation found on the project website appears to show the office wastewater flow will be 20 gpd, giving the project a total wastewater flow of 9,700 gpd. Since the total flow is less than 10,000 gpd, a groundwater discharge permit will not be required, and review will be within the local Board of Health's jurisdiction.

The septic systems have been designed to reduce nitrogen loading to the groundwater as required by the regulations. The treatment systems will be a KleanTu NitROE® Waste Water Treatment System.

As stated in the letter, the proposed wastewater treatment systems will not remove per- and polyfluoroalkyl substances (PFAS), nor is there currently a regulatory requirement to provide PFAS removal treatment for wastewater discharge.

<u>Stormwater</u>: Stormwater infiltration systems are proposed and appear to be designed according to the Department's Stormwater Regulations contained within the Massachusetts Wetlands Regulations, 310 CMR 10.00. The project does not appear to be subject to the Wetlands Regulations. Stormwater requirements that do not have the potential to impact wetland resource areas are usually governed at the municipal level. The bottom of any stormwater infiltration system must be at least two (2) feet above the maximum groundwater level in a Zone II as required by the Stormwater Regulations.

Underground stormwater infiltration structures may be subject to the jurisdiction of the MassDEP Underground Injection Control (UIC) program, with regulations at 310 CMR 27.00. These structures must be registered with the MassDEP UIC program through the submittal of a BRP WS-06 UIC Registration application through MassDEP's electronic filing system, eDEP. All information regarding on-line (eDEP) UIC registration applications may be obtained at the following web page under the category "Applications & Forms":

https://www.mass.gov/underground-injection-control-uic.

For further information please contact Joe Cerutti, the statewide UIC program contact, who can be reached at joseph.cerutti@mass.gov.

National Pollutant Discharge Elimination System (NPDES) Construction Stormwater Permit: The Project construction activities are scheduled to disturb more than an acre of land and therefore may require a NPDES Stormwater Permit for Construction Activities. The Proponent can access information regarding the NPDES Stormwater requirements and an application for the Construction General Permit by completing and submitting a Notice of Intent (NOI) to EPA via the Stormwater Discharges from Construction Activities | National Pollutant Discharge Elimination System (NPDES) | US EPA. The Proponent is advised to consult with Margarita Chatterton at chatterton.Margarita@epa.gov or by phone at 601-918-1034 for questions regarding EPA's NPDES Construction General Permit requirements.

If you have any questions regarding this document, please contact Jim McLaughlin at 857-260-1002 or by email at james.m.mclaughlin@mass.gov.

Sincerely

Gerard M.R. Martin Regional Director

JM/

DWP Archive\SERO\Marshfield-Ferry St 40B Bridle Crossing-2024-08-16

Ec: Michael Maresco, Town Administrator, mmaresco@townofmarshfield.org

Marshfield Department of Public Works

Attn: Shawn T. Patterson, Superintendent, spatterson@townofmarshfield.org

DEP - SERO

Attn: Jonathan Hobill, Regional Engineer

Jim McLaughlin, Drinking Water Program Chief Jeff Gould, Water Pollution Control Program Chief