SECTION 5. PRE-DEVELOPMENT HYDROGEOLOGICAL ASSESSMENT.

Purpose: Massachusetts law and regulations provide that every dwelling must have a supply of potable water, sufficient in quantity, to meet the ordinary needs of the occupants. This regulation requires developers of certain specified residential developments to perform hydrogeological site investigations, analyses, and reporting to ensure adequate quantities of potable water for domestic consumption are sufficient to support the development over both the short and long term.

Rehoboth does not have a public water supply system or sewer system. Almost all residences rely on private wells and septic systems. Data from the Massachusetts Department of Environmental Protection ("DEP") for 1200 residential wells throughout Rehoboth include the following: (a) 95% of the wells are over 100 feet deep, 71% are over 200 feet deep, and 45% are over 300 feet deep; (b) the thickness of the overburden (the distance from the soil surface to bedrock) is 30 feet or less for 58% of the wells, and 50 feet or less as to 84% of the wells; and (c) 97% of the wells are drilled 50 feet or more into the bedrock, and 89% are drilled 100 feet or more into the bedrock. This evidence suggests wells drilled in Rehoboth, now and in the future, are drilled into bedrock, collecting water from cracks and fissures in the bedrock.

Surface water is not a viable alternative to ground water for providing potable water in Rehoboth. Nearly all of the Town is within the Palmer River watershed. In

many summers, the streams and the East and West Branches of the Palmer River watershed run dry or nearly dry. Further, the Bristol County Water Authority in Rhode Island, not the Town, has exclusive water withdrawal rights to Shad Factory Pond, a man-made reservoir, fed by the Palmer River, in south Rehoboth.

Based upon the foregoing, increased residential development will result in additional challenges to an already strained water supply. Therefore, to address the limited water supply existing in Rehoboth, any proposed residential development which satisfies the criteria set forth in Section 5.3 (the "Development"), must comply with all of the conditions set forth in Section 5.4 hereof.

- 5.2. <u>Definitions:</u> A "<u>Qualified Hydrogeologist</u>" is defined as a person with (a) hydrogeology training and extensive experience in Massachusetts, including in the areas of groundwater evaluation, geologic formation and analysis, and the science of contamination transport, (b) who is certified as a Professional Hydrologist-Groundwater or a Professional Hydrologist-Water Quality by the American Institute of Hydrology or who is a Certified Ground Water Professional (CGWP) by the National Groundwater Association, and (c) who submits to the Board references as to similar assignments he has completed. The hydrologist must be an expert in the concerns of this regulation and be recognized in his profession for the high level of his expertise and independence.
- 5.3. <u>Applicability:</u> A Development which relies, wholly or in part, on private drinking water wells and onsite sewage disposal systems <u>and</u> meets one or more of the Trigger Criteria in this section.

5.3.1. Trigger Criteria.

- buildout of more than twenty-five (25) lots or more than twenty-five (25) dwelling units, whether or not the proposed Development actually seeks permits for twenty-five (25) units or lots. The potential buildout shall be based upon analysis of subject locus under applicable law and regulations, including without limitation zoning law, subdivision control law, Board of Health regulations, and environmental laws and regulations. In the event of conflicts or ambiguity regarding such determination, the Board's determination shall control. In the event that a proposed development is processed under G.L. c. 40B, §§20-23, the Rehoboth Zoning Board of Appeals is encouraged to apply the requirements of this regulation in assessing the viability of any such project.
- hereinafter defined) for the Development exceeds **twenty (20)**. The Maximum Density Measurement (as hereinafter defined) for the Development exceeds **twenty (20)**. The Maximum Density Measurement shall be determined as follows: (a) draw a grid of squares over the Development, each square being three feet per side; (b) draw circles, each with a radius of 500 feet, centered on each and every intersection of the lines of the grid (note that circles within 500 feet of a boundary of the Development shall extend beyond the boundaries of the Development and, if any, across roadways and existing natural features); (c) as to each and every circle, calculate the number (the "Number") of drinking water wells and septic systems (entirely or partially within the circle being counted), including both existing and proposed, within such circle; (d) the highest

Number so obtained is the Maximum Density Measurement for the Development, provided however that this Section 5.3.1.2 trigger shall not be applicable if the Development has a potential buildout (as described above) of less than ten (10) lots and less than ten (10) building units.

- 5.3.1.3 Existing Hazards. The proposed site, in the determination of the Board, contains existing conditions which pose potential health hazards as may relate to water quality and quantity, including by way of illustration and not limitation, historical groundwater contamination in reasonably close proximity, historical drinking water quantity or quality problems in reasonably close proximity, historical well interference problems in reasonably close proximity, historical septic system failures in reasonably close proximity, the presence of substantial wetlands or surface waters within 100 feet of any proposed residential lot, or the presence of unsuitable soils or rock conditions on the subject site.
- 5.3.2 <u>Separate Ownership or Control.</u> A Developer may not segment, "checkerboard" or utilize related entities to circumvent these regulations. In assessing whether Developments are in single ownership for purposes of determining the application of the Triggers, the Board may consider one or more of the following factors:
- 5.3.2.1. whether the owner or operator of Developments asserted to be in separate ownership develops, constructs and operates the Developments independently, including whether there are any common or related beneficiaries among the separate ownership entities, and whether each owner acts with due regard for the

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independent financial interests of the owner, operator and any beneficiaries of the assertedly separate Developments;

- 5.3.2.2. whether, and the extent to which, legal agreements exist which provide the owner or operator of the Developments asserted to be in separate ownership the right to access each other's Developments and/or to use and share financial responsibility for common buildings, infrastructure, or services;
- 5.3.2.3 the existence of some evidence that ownership or control of the Developments asserted to be in separate ownership or control was arranged to circumvent the requirements of this Section 5, including evidence that one or more Development owners have acted to acquire, divide, or dispose of adjacent properties to avoid the requirements of this Section 5.
- 5.4. Preliminary Evaluation. If the Developer is uncertain as to the applicability of this Section 5.3.1.3, the Developer is strongly encouraged to discuss the possible application of this Section 5.3.1.3 and the gathering and evaluation of information relevant thereto with the Board, as early as possible in the Developer's consideration of the Development and prior to any formal submissions by the Developer to any Town Boards or officials relating to the Development. The Board shall place, on its agenda, any such discussion as requested by a proposed developer. Alternatively, the Board shall conduct such evaluation on its own initiative upon receipt of a copy of any application for approval under zoning, subdivision control, wetlands protection or the building code.

5.5 Assessment, Application and Approval Process:

- 5.5.1 <u>Application:</u> The Developer of a Development meeting any of the Trigger Criteria shall submit an application for an assessment and approval on a form prescribed by the Board.
- 5.5.2 Assessment Report: The Developer of the Development shall retain, at Developer's expense, a qualified hydrogeologist to prepare and complete, as part of any such application, an assessment report detailing the current quantity and quality of water at the Development, impacts to water sources in the vicinity, and, using accepted industry standards and principles, sufficiency projections for water quantity and quality. Additionally, the Assessment Report shall be completed in accordance with the policies adopted by the Board.
- 5.5.3. Consulting "Peer Review" Fees: When reviewing the activities and reports of the Developer of a Development, the Board may determine that the assistance of outside consultants is warranted due to the size, scale or complexity of a proposed Development, because of a Development's potential impacts, or because the Town lacks the necessary in-house expertise to perform the technical review of the proposed Development. In such circumstances, the Board may avail itself of the provisions of G.L. c. 44, §53G to engage hydrologists, hydrogeologists, engineers, scientists, lawyers, licensed drillers or other appropriate professionals qualified to assist the Board in analyzing the Development and the reports and other evidence from the Developer and his consultants. Such assistance may include, without limitation, analyzing, monitoring, and inspecting the Development and the work of the Developer and the

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Developer's contractors and consultants. The Developer shall bear the costs for such review in accordance with said statute. Failure of the Developer to pay a project review fee shall be grounds for denial of any permit relating to the Development.

Adopted August 22, 2017

Rachel Smith: Chairman

Tony Gaucher, Vice Chairman

George Kellum, Member

Mark Hass, Member

Theresa Moitozo, Clerk

Board of Health