

South Central Connecticut Regional Water Authority
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<http://www.rwater.com>

September 29, 2021

Mr. Donald Molleur, Chair
Beacon Falls Planning and Zoning Commission
10 Maple Avenue
Beacon Falls, CT 06403

Dear Mr. Molleur:

Re: Hopp Brook Village District zone change and affordable housing application

The Regional Water Authority (RWA) has reviewed the above referenced application. Approximately 68 percent of the 135 acre property is within the watershed of Hopp Brook, which is a reserve public water supply source for the RWA. The applicant is proposing a zone change and development of 109 single family residences under the affordable housing regulations. The site is zoned R-1 and currently forested. RWA property borders the development to the east. The residents will be served by public water and on-site septic systems. Sixty-four of the 109 septic systems are located on the public water supply watershed portion of the property. Storm water will be directed to four retention basins, three of which are located on the public water supply watershed portion of the property. The application states that they will be maintained by the homeowners association. There is a proposed open space set aside of 40 acres. A tributary to Hopp Brook and associated wetlands are located on the southern portion of the property.

The RWA's concerns regarding this application are related to the impact of increased allowed development density on the water quality of this reserve public water supply source. Higher residential density will typically generate higher volumes of waste water and increase generation and concentration of storm water runoff. The CT DEEP report, *Carrying Capacity of Public Water Supply Watersheds: A Literature Review of Impacts on Water Quality From Residential Development*, found that a maximum density of one dwelling per two acres will provide adequate protection of water quality if pollution control measures outlined in the report are utilized. In addition, the *Report For the Blue Ribbon Commission on Housing, On the Land Required To Support Residential Development In Connecticut* also recommended a minimum lot size of two acres, exclusive of wetlands, within public water supply watershed for the protection of public health and the environment. The current R-1 zone limits density to 1 residence per acre. The proposed zone change would allow 1.8 residences per acre, and thus move the allowed density toward a lesser standard of protection. This increase in allowed density is also of concern relative to the degree that the existing forest cover can be converted to high density residential use, with associated lawns and impervious cover. Forestlands are considered to be the most beneficial watershed land cover for protecting drinking water sources, as noted by the American Water Works Association, the U.S. Endowment for Forestry and Communities, and U.S. Forest Service National Forests to Faucets Partnership.

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We are concerned with the lack of information in the site plan regarding septic systems. The majority of septic system effluent will be directed to the public water supply watershed portion of the property. It is unclear why there are separate leaching fields when each group of 16 residences is connected to a single sanitary sewer main. The site plan does not show septic tanks, a connection to the leaching fields, or a reserve leaching field. There is no information regarding percolation testing or test pits. The proposed septic systems do not appear to be individual systems and may be considered a community septic system under the jurisdiction of the CT Department of Public Health or the CT Department of Energy and Environmental Protection, depending on design flows. Concentrating the septic system effluent into small areas close to the RWA property line could pose a threat to groundwater quality, specifically bacteria and nitrogen pollution. The application also contains conflicting information relating to connecting the residences to a municipal sanitary sewer system.

There was no information provided regarding the design, inspection and maintenance of the storm water management system. Storm water treatment systems require regular maintenance to be effective. An inspection and maintenance plan should be developed and included in the site plan. The responsible party for inspecting and maintaining the system should be identified. We recommend storm water systems be inspected at least twice per year, and that an annual report documenting inspections and maintenance be submitted to the town. The RWA would like to receive a copy of such reports.

Thank you for the opportunity to comment on this application, if you have any questions, please contact me at 203-401-2741, or rwalters@rwater.com.

Sincerely,

REGIONAL WATER AUTHORITY



Ronald Walters
Senior Environmental Analyst

cc Mr. Stephen Bellis, Pellegrino Law Firm
Mr. Peter Betkoski, RWA Representative Policy Board
Mr. Eric McPhee, CT Department of Public Health