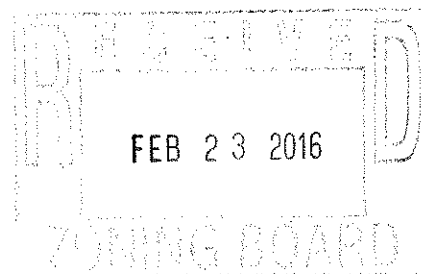


Memorandum

To: Ms. Sabrina D. Charney Hull, AICP
Director of Planning
Town of New Castle
200 South Greeley Avenue
Chappaqua, New York 10514



From: William A. Canavan, PG, LSRP
HydroEnvironmental Solutions, Inc.
One Deans Bridge Road
Somers, New York 10589

Date: February 22, 2016

Re: Sunshine Children's Hospital
ZBA Special Permit Amendment Application
15 Spring Valley Road
New Castle, New York

HydroEnvironmental Solutions, Inc. (HES) reviewed the letter from the Applicant's Groundwater and Environmental Engineering consultant Leggette, Brashears & Graham, Inc. (LBG) dated December 23, 2015 and received in our office on February 12, 2016. Based on our review, we offer the following:

Water Demand

The water demand table and backup water use provided in the LBG letter report are satisfactory, and confirm facility water use over the past two years. Thus, the projected demand for the proposed new facility is acceptable to HES. However, the Westchester County Department of Health (WCDOH) will have the final say on this matter as the water use varies from WCDOH projected water use numbers.

Off-Site Impacts to Existing Supply Wells

HES is in agreement that our site-specific water budget is conservative, however, it does provide useful information with respect to available groundwater and on-going pumping and water use. It should be noted that "no claims of any significant off-site impacts to neighboring wells" as stated in the letter, does not mean that there are none or have not been any. No historic hydrogeologic evaluation of existing off-site wells has ever been conducted to confirm that there are no significant impacts. That said, HES is in agreement that significantly more groundwater is available when the contributing 0.138



HydroEnvironmental
SOLUTIONS, INC.
One Deans Bridge Road Somers, New York 10589

square mile surrounding watershed is considered. When the surrounding watershed is considered then sufficient water is available, even during drought conditions.

Well 2 Deepening and Pump Test

Given the information provided in the letter report, HES is satisfied that the safe yield of Well 2 is 7.5 gallons per minute (gpm), and storage was increased by deepening the well.

Current NYSDOH Projected Demand versus Applicant Projected Demand

The Applicant is assuming that the proposed facility will be using less water than NYSDOH (New York State Department of Health) projected water use values, and their water use numbers are substantiated by LBG's analysis of actual use over the past 2 years.

Proposed Irrigation from Rainwater Storage Tank

It was stated in the materials provided that the irrigation storage tank will be 48,000 gallons. If past irrigation use as stated in the information provided and the LBG letter remains unchanged (10,000 gpd [gallons per day]), then the proposed storage tank will provide for only 5 days of irrigation water at present use rates. During a typical summer, significant periods of no rain, often greater than 5 days, occur. Thus, as part of the Application, the Applicant should provide detailed information on proposed landscaping for the new facility and justify that the 48,000 gallon tank will be sufficient as, according to the Applicant, pumping groundwater is not an option to augment irrigation.

Existing Supply Wells

HES is pleased that the Applicant is willing to meter the existing supply wells (1, 2 and 3) individually to determine long-term pumping rates over time, and to implement the recommended off-site existing supply well monitoring program. As outlined in our November 16, 2015 Memorandum, an annual or semi-annual report should be provided to the Town for their review.

HES would be pleased to meet with the Town and/or the Applicant to discuss this project in further detail should the need arise. Please contact us at (914) 276-2560 with any questions or should you require any additional information pertaining to this matter.

