



PUBLIC WORKS COMMISSION
TOWN OF CONCORD
133 KEYES ROAD
CONCORD, MASSACHUSETTS 01742-1601
www.concordma.gov
TELEPHONE: 978-318-3206 FAX: 978-287-4762

February 22, 2021

Zoning Board of Appeals
141 Keyes Road
Concord, MA 01742

Regarding: Concord Country Club – Proposed Irrigation System Improvements
Concord Public Works' Recommendation

Dear Board Members:

Whereas, the Concord Country Club (CCC) is proposing to perform irrigation system improvements within the Groundwater Conservancy District (GCD) that has the potential to have an adverse impact on the Town's municipal water supply, in accordance with the GCD bylaw, the Public Works Commission (PWC) has reviewed the project and offers the following assessment and recommendation to the ZBA.

A letter report, dated February 1, 2021, prepared by Peter Newton, PG of Bristol Engineering Advisors Inc. (attached) was developed at the request of Concord Public Works (CPW). The assessment was developed to characterize what, if any, potential adverse impacts the construction and operation of irrigation system improvements might have on the Town's municipal water supply. As detailed in this letter report, the project involves extensive site work to create a new irrigation holding pond that will be used to store water from natural precipitation supplemented by two existing, large capacity private wells. The Town of Concord operates two public water supply wells (the Deaconess wells) located approximately 1,100 feet east of the Club's irrigation wells and draw water from the same hydrogeologic formation.

On February 10, 2021, representatives from the CCC attended a PWC meeting to present their "*Water Balance Analyses and Irrigation Management Plan*". The PWC reviewed the analyses and plan, presented by Mr. Newton, and after discussion and deliberation, concluded that while the operation of the irrigation system could have an adverse impact on the municipal water supply, this risk could be mitigated with the adoption of a drought management plan as detailed within report. During this meeting, PWC learned that while the CCC has been operating its two irrigation wells for over 20 years, there has been no formal drought management plan in effect.

While the PWC was satisfied with the assessment and findings of the water balance and drought management plan, because unmitigated effects on the municipal water supply could be consequential, PWC recommends that should the ZBA approve the proposed site work, it do so with the following conditions;

- 1) CCC will withdraw water from its irrigation wells per the Bristol Engineering Advisors letter, including during declared droughts per the table presented therein, with the Town reserving its rights, in consultation with the CCC, to direct the CCC to reduce irrigation well(s) pumping further if the Town deems it necessary to protect public water supply.

- 2) CCC will install a monitoring well between its existing irrigation wells and the Town's Deaconess wells, in consultation and agreement with the Town (see below), and monitor and document the water table elevations and pumping rates to verify there is no negative effect on the Town's wells, or determine there is a significant negative effect and how to address it.
- 3) Upon approval of the proposed irrigation pond, the CCC and CPW will develop and agree to a monitoring and response plan that identifies a location for the monitoring well, and identifies the monitoring, analyses, reporting, review and response process, and responsibilities of each party. That plan shall be developed by CCC and approved by CPW within 120 days of the Town's approvals of the irrigation pond, unless otherwise authorized, in writing, by the Director of CPW.

Respectfully,



James Terry
Chair, Concord Public Works Commission

Enc: February 1, 2021 Bristol Engineering Letter

Cc: Alan A. Cathcart, Director of Public Works
John Rogers, Water/Sewer Superintendent