



CITY OF CONCORD
New Hampshire's Main Street™
Community Development Department

REPORT TO THE MAYOR AND CITY COUNCIL

FROM: Carlos P. Baía, Deputy City Manager for Development
DATE: October 26, 2020
SUBJECT: Response to “East Concord Ground Water Depletion” Letter from Mr. Donald Stever

Recommendation

Accept this report.

Background

The City Council, at its October 13, 2020 meeting referred a letter from Mr. Donald W. Stever to the Community Development Department.

Mr. Stever entitled his communication “East Concord Ground Water Depletion.” In it, Mr. Stever noted that he owns approximately 75 acres of land on Graham Road and that he is a unit owner in Generation Farm, LLC on his property. He noted that the property had not had a problem with its ground water supply until recently when a deep well that serves the farm went dry.

Mr. Stever expressed concern that the local aquifer was depleted and suggested that it could be related to nearby residential development. He suggested that the City undertake a ground water supply analysis to “determine the capacity of the underlying ground water aquifer...before it approves any more subdivisions for properties in the area.”

Discussion

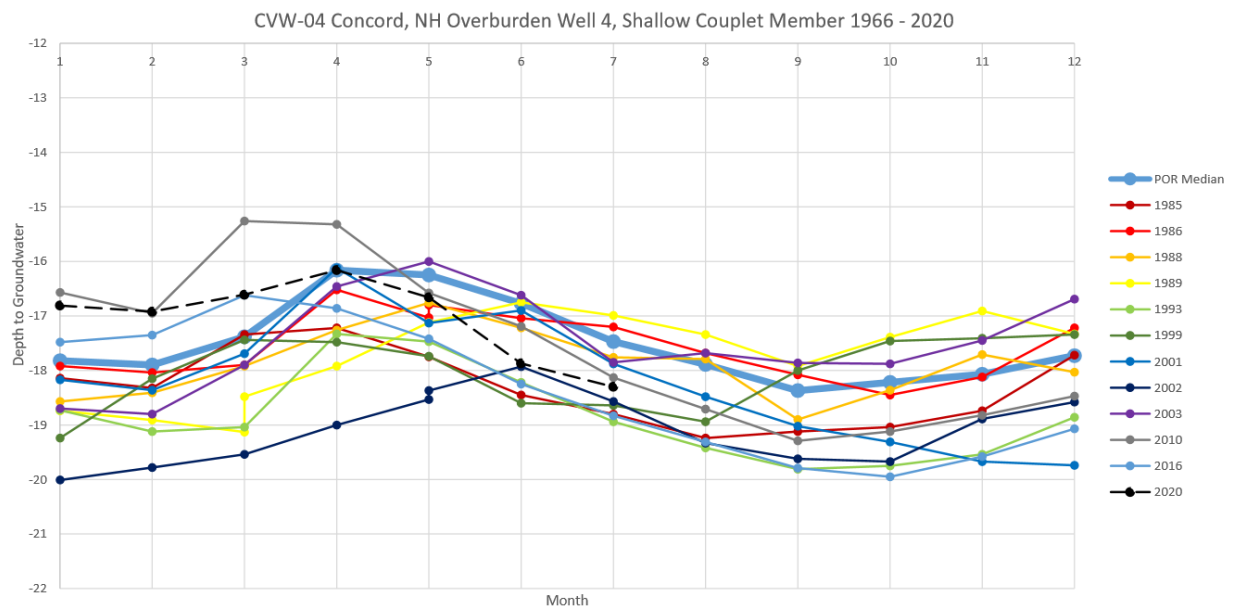
Groundwater withdrawals are the jurisdiction of the State of New Hampshire. Well drillers are required to submit a well log detailing depth, yield and geology to the State. Private well construction must meet State of NH requirements for capacity and quality.

This area in the vicinity of Graham Road is zoned “RO-Open Space Residential” which, as defined in Concord’s Zoning Ordinance is “established to accommodate single family dwellings at densities not exceeding one-half (1/2) of a dwelling unit per acre.” In addition to this low

density, cluster development is also strongly encouraged in the RO to maximize the preservation of open space which facilitates even greater groundwater recharge.

Community Development staff consulted Rick Chormann, the State Geologist, concerning Mr. Stever's question. Mr. Chormann explained that the level of development in the area is not such that it would have adversely affected the wells to the extent Mr. Stever experienced. In fact, Mr. Chormann noted, farms are often more significant withdrawers of water than the type of residential neighborhoods in question.

Mr. Chormann explained that the entire state is experiencing a significant drought which is impacting groundwater levels. As of early October, most of the state was considered to be in a "severe drought" and 10.6% of the state in an "extreme drought." (*Seacoast Online*, "Gov. Sununu to ask for relief to help drought-stricken wells," Oct. 8, 2020) The following graph provided by Mr. Chormann illustrates that in 2020 Concord's depth to groundwater was among the worst since 1966.



Abby Fopiano, the State of NH's Well Program Manager, in a September 29, 2020 NHPR interview added further context to this predicament when she noted that statewide:

I have heard from the industry that many [well drilling] companies are getting upwards of 20 calls a day of people that have no water. Any no water call always has to be vetted to see if it's truly a drought issue or another pump issue. But at this point in time, many are drought related. And we have hundreds of well companies throughout the state. So we have hundreds of wells really feeling the impacts of drought every day. (NHPR Interview with Rick Ganley, "N.H. Well Owners Hit Hard By Severe Drought Conditions," September 29, 2020).

In the short term, Governor Sununu's administration has recognized this same concern and recently established an emergency fund for low income New Hampshire well owners that have seen their wells go dry (WMUR, "Emergency fund approved for low-income households with dry wells, October 23, 2020).

Ms. Fopiano explained that the long term solution to recharging deep wells is a sustained amount of precipitation. Most beneficial would be a winter with significant snow which would allow for a slow melting and recharging.

In conclusion, there is no evidence that the City's current limited development patterns in the RO district have contributed to the situation that Mr. Stever notes. Towns and cities around the state, including in the less populated North Country, have also experienced dry wells during this current drought. Staff does not recommend that the City conduct a ground water analysis but would suggest that—should the current severe drought continue or worsen—the Planning Board consider whether it should require developers to conduct a groundwater analysis of their proposed subdivisions.

cc: Concord Planning Board