



GMNJ Well Test Results

Memo from: Colliers Engineering and Design (DBS Maser Consulting)

Date: November 14, 2023

As required by Condition DD of the Township's Planning Board Resolution PB#2022-07, GMNJ ("Applicant") was required to test and monitor four (4) surrounding wells to ensure that there are no negative impacts once GMNJ goes into full operation. The four (4) wells that were selected were based on a joint review between the Applicant's and Township's professionals (and hydrogeologists). The attached report as prepared by Princeton Geoscience, Inc., dated September 20, 2023, indicates that no negative impacts were found or are expected. The Township Engineer Office's hydrogeologist has also reviewed this report and concurs with the conclusions. More specifically, the report concludes "Overall, the 8-hour aquifer testing results and forward modeling of GMNJ's typical and maximum pumping schedules provide strong lines of evidence that the Site's operations will not excessively influence the surrounding private domestic wells. In conclusion, GMNJ and offsite residents will be able to utilize (or continue to utilize) their private wells as currently planned and without modification."

The second summary is Stover's Wells and Pumps' memorandum, dated August 25, 2023, summarizing observations on the day of the pump test. The Township engaged Stover's Wells and Pumps to monitor three (3) additional wells beyond the four (4) wells mentioned above that were formally monitored by GMNJ professionals. Of the 3 wells that Stover's Wells and Pumps monitored, the only well that showed any movement was located at 649 Brunswick Pike and the interference noted was within the acceptable range. Mr. Stover notes in his memorandum, "While this well does show some interference, the amount removed from the reservoir amounts to approximately 9.1 gallons during an 8-hour period (1.4 gallons per foot x 6.4 ft of change). In addition, the well recovered at roughly 1.4 gallons per hour." The interference was within the range of criteria adopted for this test and based on numerous telephone conversations between the Township Engineer's office, Jim Peterson (Princeton Geoscience, Inc.) and Tom Stover (Stover's Wells and Pumps), evaluation of the geologic conditions and distribution of drawdown reported in the aquifer test results report, the water level drawdown of approximately 6.4 feet observed at 649 Brunswick Pike is very likely the result of aquifer communication via the water bearing fracture identified at a depth of 270 feet at the pumping well, as shown on the attached figure (Figure 1) or some inadvertent use of water at that site. Based on the available data and based on communications with both Princeton Geoscience and Stover's Wells and Pumps, the operational pumping from the proposed GMNJ project is not expected to adversely affect any of the tested off-site wells, including the subject off site well at 649 Brunswick Pike.

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