



# State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

CHRIS CHRISTIE  
*Governor*

BOB MARTIN  
*Commissioner*

KIM GUADAGNO  
*Lt. Governor*

MAIL CODE 401-0Q  
DIVISION OF WATER SUPPLY AND GEOSCIENCE  
NEW JERSEY GEOLOGICAL AND WATER SURVEY ELEMENT  
BUREAU OF WATER ALLOCATION AND WELL PERMITTING  
401 E. STATE STREET – P.O. BOX 420  
TRENTON, NEW JERSEY 08625-0420  
TELEPHONE: (609) 984-6831  
FAX: (609) 633-1231  
[www.nj.gov/dep/watersupply](http://www.nj.gov/dep/watersupply)

## New Jersey Department of Environmental Protection NJ State Well Drillers and Pump Installers Examining and Advisory Board Meeting Minutes for July 20, 2017

*Approved by the Board on September 21, 2017*

### Board Member Attendance:

Present	Absent
<b>Art Becker (Chairman)</b> <b>Gary Poppe (Vice-Chairman)</b> <b>Gordon Craig</b> <b>Joe Yost</b> <b>Richard Dalton</b> <b>Jeff Hoffman</b>	<b>Joe Pepe</b> <b>Carol Graff</b> <b>Steve Domber</b>

**Board Legal Representatives Present:** Deputy Attorney Generals (DAG) Robert Guzek and Jill Denyes, NJ Division of Law

**NJDEP Bureau of Water Allocation & Well Permitting Staff Present:** Terry Pilawski, Pat Bono, Julia Altieri, Steve Reya, Mark Ortega, Jeremy Wick, Stephen Kelly, David Vella and Melia Stoop

**NJDEP, Water Compliance & Enforcement:** Bryan Barrett

**NJDEP, Bureau of Energy & Sustainability:** Sheryl Tembe, PhD, Bob Kettig (Bureau Chief) and Ravi Patraju

**Member of the Public:** Henry Robbins, Robbins Water Service, Inc.

### 1. Call to Order-

The meeting was called to order by Chairman Art Becker at 9:35 am with a quorum present.

**2. Introductions-**

David Vella was introduced as a new staff member in Bureau of the Water Allocation and Well Permitting. Mr. Vella is a recent geology graduate from Rutgers University who will be assisting the well permitting staff by performing well record and decommissioning reviews and conducting well searches.

**3. Review and Certification of the Minutes for the May 25, 2017 Meeting –**

It was noted that in Item 14, the second sentence must be revised to replace “will be attending” with “attended” as the referenced meeting occurred prior to the Board meeting at which the statement was made.

A motion to approve the meeting minutes with this change was made by J. Yost, seconded by R. Dalton and approved by all.

**4. Review and Certification of Well Driller and Pump Installer Exam Scores for June 7, 2017–**

**Master**– There were no applicants for the June 7, 2017 Master Well Driller Exam.

**Journeyman-** A motion to approve three (3) listed license exam scores was made by G. Craig, seconded by J. Hoffman and approved unanimously by all.

**Journeyman B-** A motion to approve two (2) listed license exam scores was made by R. Dalton, seconded by G. Craig and approved unanimously.

**Monitoring**– A motion to approve fourteen (14) listed license exam scores was made by J. Yost, seconded by R. Dalton and approved unanimously.

**Soil Borer**– A motion to approve two (2) listed license exam scores was made by G. Craig, seconded by D. Dalton and approved unanimously.

**Pump Installer** – A motion to approve two (2) listed exam scores was made by J. Hoffman, seconded by J. Yost, and approved unanimously.

The determination to allow an applicant to sit for the pump installer exam, Bryan Giles, was determined to be pending until DEP well permitting staff can determine whether home school diplomas can be acceptable as evidence of a high school diploma. Answers to some inquiries by staff to other NJ state agencies on this issue have not yet been answered. As discussed previously at the May meeting, this applicant was homeschooled and was thus not in possession of a high school diploma or G.E.D. The well rules (N.J.A.C. 7:9D-1) specifically stipulate that evidence of one or the other a requirement is required as part of an application to sit for an exam. Board legal counsel has requested that Bureau staff perform additional research to ascertain whether or not the provided home school diploma is considered to be the equivalent, and therefore would meet the requirements stipulated in the rules.

**5. 2017 Board Meetings, Conference Call & Exam Dates-**

Board members were reminded that the remaining 2017 meetings are scheduled for the following dates:

- September 21 and November 21
- A conference call will be held on October 26, 2017 to review/approve the October 4, 2017 Exam scores. The final exam for 2017 will be held on December 6<sup>th</sup>.

**6. Bench Test Results on GeoPro CGPlus Geothermal Grout (G. Craig)-**

G. Craig presented the results of a bench test he conducted over a six (6) week period to determine the effects of this grout mix when submerged in a bath of freshwater. The purpose of the test is to

determine if the high bentonite content in the mix would fail to set up properly in fresh water, and thus continue to leach out and raise the pH of the water in which the grout is placed. G. Craig provided a summary of the results in a table. Board members reviewed the results and determined that no measurable adverse effects were observed. Additionally, the grout was determined to be a material that does ultimately set-up properly; therefore, its use should not be prohibited in bedrock environments, as in the case of bentonite grouts per the regulations. S. Reya will contact the manufacturer representative to let him know that he can proceed with scheduling the required field demonstration of the product, which is the next required step for gaining product approval. It is likely that other bentonite products revised by GeoPro (e.g. PowerTec) reviewed at previous Board meetings, will be mixed and pumped that day as well.

**7. List of Lapsed Licenses-**

S. Reya provided Board members with a list of licensees whose driller/pump installer licenses were not renewed prior to the June 30, 2017 deadline. He indicated that those license holders will receive a second invoice for the original license fee plus a \$50 late payment reinstatement fee to reinstate the license. Members were encouraged to double check the list and contact any listed individuals in the industry if it is known that any still wish to retain the license as it is possible that the Department is sending the billing notices to the last known addresses on file, which could be outdated due to the three-year license cycle.

**8. Flexible Liner Underground Technologies, LLC (FLUTE)-**

Board members reviewed a letter drafted with the Board's response, July 20, 2017, to be sent in response to the April 14, 2017 letter from Carl Keller from FLUTEe, LLC. Mr. Keller questioned the effectiveness of using certain other types of multi-level well systems to delineate and monitor contamination in groundwater and contended that the Department should not allow the use of some of the systems currently in use for remediation and contaminant sampling within the state. Mr. Keller's letter was reviewed at the May 25<sup>th</sup> meeting and discussed. A number of the Board members have experience with a variety of these systems designed to address the need for sampling at different levels or depths. The consensus of members was that no one specific manufactured multi-port monitoring well system is appropriate for all sites. Similarly, they did not believe the Department should effectively ban any one particular manufactured product based on the fact it would not work in all instances. These systems are currently installed on a case-by-case basis via a deviation request that is submitted along with the well permit application and reviewed by Department staff. Deviation requests require the permittee/ driller applicant to specify the reason(s) why that well cannot be constructed in accordance with the well regulations and perform as needed. Members had no suggested revisions to the letter that was drafted by P. Bono and A. Becker. The letter will be sent under Chairman Becker's signature.

**9. Developing Guidance and Tools to Support Ground-Source Heat Pump Systems in NJ Utilizing a Renewable Resource for Energy Efficiency**

**Sheryl Tembe, PhD, NJDEP Bureau of Energy & Sustainability-**

To support the growth in installations of Ground-Source Heat Pump (GHP) systems in New Jersey, the Bureau of Energy & Sustainability (BES) is proposing the development of technical guidance documents and online decision making tools, in accordance with NJ State regulations and policies, and industry standards. Sheryl Tembe, PhD, presented overview of deployment conditions faced by the GHP industry, and described current incentive programs, market barriers, influence of energy prices, and NJDEP's role as a regulator and facilitator. BES is requesting collaboration with the

Board and NJDEP regulatory programs to develop the necessary outreach and educational resources to assist constituents in installing the appropriate GHP systems that would realize energy savings and reduce waste streams that are harmful to the environment and human health.

At the conclusion of her presentation, Dr. Tembe indicated there were a number of areas they would like to get some input from the Board and drilling industry professional. These include: cost estimates for well installation, how varying hydrogeologies affect the performance of geothermal wells, problems noted with various types of indoor mechanical systems, whether or not state regulations stay ahead of the technology, the need for consumer education or training of operators and inspectors for open and closed loop systems.

G. Craig, G. Poppe and S. Tembe discussed the financial difficulty currently facing the geothermal industry, which is primarily attributed to reduced government incentives. S. Tembe suggested that the Bureau may want to include a link to the NJ Board of Public Utilities (BPU) website on all geothermal well permits that are issued to allow property owners to research whether they are eligible for any financial incentives or rebates. She felt that many property owners may not even be aware of the rebates for which they are eligible and this may be a way to inform the public.

**10. Drought update by Jeff Hoffman-**

J. Hoffman indicated that recent rainfall has affected the state's water supply in a positive manner. Specifically, only two (2) counties now remain in drought warning. This is due to reservoir levels in the central water supply region still remaining lower than usual. Fortunately, he said these levels have also shown positive trends as water levels are slowly rising within the affected reservoirs. The wet month of May has also increased groundwater levels within the state, added J. Hoffman.

The formal comment period for the proposed NJ Water Supply closes tomorrow, July 21, 2017.

**11. Board Procedures and Continuing Education Requirements for License Holders-**

Members reviewed the well rule proposal sections which will establish the Board procedures and role in licensing of drillers and pump installers, including the proposed continuing education program for renewing licenses. DAG Jill Denyes, who actively worked on the rule draft on behalf of the Board, attended the meeting to provide clarification. Several questions were raised as to the process the Board will utilize to approve continuing education course providers and the requirements that licensees must meet to be eligible for renewal. During this review session, members did not find that the section contained any significant errors or omissions that needed to be addressed during the public comment period.

**12. Enforcement of Well Construction Requirements: Concerns Raised by Public Attendee-**

Mr. Henry Robbins, Master Well Driller with Robbins Water Well Service, expressed a serious concern he has had for decades. He stated that certain drilling contractors continue to knowingly violate the well rules by not properly grouting wells. He believes that the same drillers do this over and over to save on well installation costs and increase profits at the expense of protecting the state's groundwater resource. Without placing conforming grout, wells are susceptible to introducing contamination into groundwater from surface runoff and shallow contaminants. H. Robbins suggested that the Department require all well drillers to submit periodic, such as annually, grout receipts to show that they are purchasing the required amount of grout. This billing information could then be compared with well record documentation to ascertain whether or not the contractor is purchasing an amount of grout that is consistent with what would be required to grout

the footage claimed on their well record submittals. Bureau staff fully agree with his concern that failure to properly grout wells and the ability to enforce the grouting requirements is crucially important to protecting groundwater. However, they do not feel that the Department currently has the authority and the extensive resources to conduct such a wide-scale audit of every contractor's billing documents vs. Department submittal documents.

**13. Update on Well Rules-**

The Well Rule Proposal has been published in the New Jersey Register. The public comment period closes July 18, 2017 and the Public Hearing is scheduled for August 10<sup>th</sup> at the DEP headquarters at 401 East State Street in Trenton.

**14. Water Allocation & Well Permitting Enforcement and Field Work Activities –**

A summary of Well Permitting Program's enforcement and field activities over the past eight (8) weeks was presented by Julia Altieri.

A) **Field Inspections-** Well Permitting Section staff performed four (4) field inspections during the past eight (8) weeks. Field staff witnessed the proper construction of two (2) new test wells, both of which are intended to be converted to public supply use at a later date. Staff also performed follow up field inspection work at a property in Hunterdon County to confirm that a newly constructed irrigation well was properly constructed and grouted. Field staff also investigated the possible illegal construction of two (2) unpermitted monitor wells on a property in South Plainfield. The Bureau also started an investigation after a neighbor requested a well search and reported seeing two (2) monitor wells that the owner reportedly constructed himself. Follow-up site visits by staff could not confirm the presence of the wells on the property in question, as they were actually located on another property. Well permits and records for both were later located once the correct location was ascertained. Therefore, no enforcement action was necessary.

B) **Negotiated settlement of well drilling violations** - Significant Bureau time was spend preparing negotiated penalty assessment offer letters to various drillers and companies in order to resolve confirmed issues of noncompliance that were discovered earlier in the year. Over \$10,000 in penalties have been issued, primarily to resolve confirmed violations of drilling without valid permits, failure to submit records within 90 days and drilling wells with without a valid license.

C) **Additional partial settlement of well drilling violations** – B. Barrett mentioned that the Central Region of water compliance enforcement has referred two Notice of Civil Administrative Penalty Assessment (NOCAPA) cases to the Department's office of Dispute Resolution in an attempt to resolve violations to the well drilling regulations without going to Hearing. The case involves a well driller and company who improperly grouted the outer boreholes of two (2) closed loop geothermal wells located at a property in Mercer County. Also, the Bureau and Central Region Water Compliance Enforcement are further working towards the negotiation with a driller and company who has failed to fulfill the agreed upon order to drill out and reconstruct four (4) irrigation wells that were constructed without a valid permit in Ocean County. The driller and company had originally agreed to the orders and pay all penalties owed for violations to the well drilling regulations but has yet to comply as of today.

**15. Update on Geothermal Wellfield Pilot Program-**

T. Pilawski provided an update on the status of the pilot plan to retrofit and recommission a geothermal wellfield in which the wells were improperly constructed. Department staff and their legal counsel are currently reviewing and formulating a response to the pilot plan submitted by a consulting firm on behalf of the property owner. The plan proposal seeks to address the proper method(s) for recommissioning seven (7) closed loop wells prior to determining the feasibility of

recommissioning these wells and bringing them into compliance with N.J.A.C. 7:7D. The lessons learned would then be applied to the recommissioning the balance of the (unpermitted) wellfield. T. Pilawski also noted that the contractor in violation has paid the first penalty assessment as stipulated in the Administrative Consent Order.

**16. 2018 Board Meeting Dates-**

P. Bono suggested developing a 2018 Board meeting schedule. She will email proposed dates to members and provide dates with the most availability at the Board's September meeting for the final scheduling by members.

**17. Adjournment –**

At 12:50 pm, a motion to adjourn was made by G. Poppe, seconded by R. Dalton and approved unanimously.