New Jersey Department of Environmental Protection
NJ State Well Drillers and Pump Installers Examining and Advisory Board
Meeting Minutes for July 18, 2019

Approved by the Board on September 19, 2019

Board Member Attendance:

<table>
<thead>
<tr>
<th>Present</th>
<th>Absent</th>
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<tr>
<td>Art Becker (Chairman)</td>
<td>Carol Graff</td>
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<td>Gary Poppe (Vice-Chairman)</td>
<td>Jeff Hoffman</td>
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<td>Joe Yost</td>
<td>Gordon Craig</td>
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<td>Richard Dalton</td>
<td>Joe Pepe</td>
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<td>Steve Domber</td>
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Board Legal Representative Present:  Deputy Attorney General (DAG) Jill Denyes, NJ Division of Law

NJDEP Bureau of Water Allocation & Well Permitting Staff Present:  Terry Pilawski, Joe Mattle, Julia Altieri, Steve Reya, Mark Ortega, and Michael Schumacher (present beginning at 9:53 am)

Members of the Public Present:  Dermot Dillon, New Jersey Ground Water Association (NJGWA) Secretary/Summit Drilling Co.; Denis Crayon, New Jersey Ground Water Association (NJGWA) President/Summit Drilling Co.

1. Call to Order and Opening Statement-
The meeting was called to order by Chairman Art Becker at 9:35 am with a quorum present.

Dermot Dillon and Denis Crayon, of Summit Drilling and the New Jersey Ground Water Association, introduced themselves to the Board and Department staff.

2. Review and Certification of May 16, 2019 Draft Meeting Minutes-
A motion to approve the draft minutes from May 16, 2019 without change was made by G. Poppe, seconded by S. Domber and approved by all except for R. Dalton who abstained since he was not at the meeting.
3. **Review and Certification of June 20, 2019 Draft Conference Call Minutes**-
   A motion to approve the draft conference call minutes from June 20, 2019 without change was made by G. Poppe, seconded by J. Yost and approved unanimously.

4. **Board Business and Correspondence**-
   S. Reya informed the Board that they are currently all on the same term and are not on staggered terms as they should be pursuant to the Subsurface and Percolating Waters Act (Act). This was something DAG, Robert Guzek previously brought up and he advised that the Department attempt to process reappointments in a manner that stays consistent with the Act to the extent possible. All Board members’ terms currently expire in March of 2020. Board members were recently provided with their resumes which were on file from when they previously applied for their positions. Carol Graff recently informed the Bureau that she will not be seeking reappointment to the Board after her current term expires. S. Reya told the Board that the Department will conduct outreach for a new public member to fill the vacancy. It was requested that Board members who have expressed interest in continuing to serve on the Board submit their updated resume to S. Reya so he can coordinate the reappointments.

5. **Testing and Continuing Education Update**-
   M. Ortega provided the Board with some updated testing information for well driller and pump installer exams. He stated that the Department has continued to receive monthly updates from the National Ground Water Association (NGWA) for individuals who take a New Jersey regulatory test module. No trends could be formed thus far due to a small data set. M. Ortega informed the Board that he finished compiling the data for exams taken between 2007 to 2017. He will use the new data received from NGWA along with the old test data to determine if there are any trends evident when comparing the two (2) different testing formats. Board members indicated that they would like to see this summary table regularly updated and presented at future meetings. S. Domber recommended putting a date at the bottom of the page if the same format will be used.

   M. Ortega then described the continuing education course completion statistics detailed on the same sheet. As of July 17, 2019, 89 licensees have earned the seven (7) continuing education points (CEPs) needed for their license renewal. There have also been 349 licensees that have started to earn CEPs toward their license renewal. That is out of approximately 980 total licensees who need to earn CEPs for their renewal. Approximately 45 licensees are exempt from the CEP requirements for this licensing cycle due to being newly licensed. The Board voiced their concerns based on the low percentage of licensees who have completed their CEPs. S. Reya mentioned that it is likely there are a lot more licensees who have taken their 8-Hour OSHA HAZWOPER refresher than have reported to the Bureau. Once course completion certificates are submitted the total will likely increase significantly.

   It was also noted that roughly a 20 percent decline in licensees was seen after the 2017 renewal cycle and the Department anticipates a similar number this cycle, if not more due to those who do not intend to renew due to the newly implemented CEP requirements. A. Becker reminded members that during the May 16, 2019 meeting it was noted that licensees cannot receive points for courses taken prior to the well rule becoming operative on March 1, 2018.

6. **Continuing Education Course Review**-
Board members clarified that the Department staff had administratively approved the courses forwarded to them for review and that members still needed to review the course content, instructor qualifications, and course length. A Becker asked if there was any discussion for these courses. S. Reya and A. Becker provided J. Denyes with an update on the continuing education review process, as she was not the Board’s legal advisor during the time the course approval process was initiated.

Courses approved by the Board for licensed individuals for previously attended events:
Joe Yost – Water Well Jetting – Demonstrated attending a 3.5 hour training course and is requesting 3.5 CEPs.
A motion was made to recommend accepting this course for 3.5 Technical CEPs. This motion was made by G. Poppe, seconded by A. Becker, and approved by all except for J. Yost who abstained.

Jeff Tomlin – Water Well Jetting – Demonstrated attending a 3.5 hour training course and is requesting 3.5 CEPs.
A motion was made to recommend accepting this course for 3.5 Technical CEPs. This motion was made by G. Poppe, seconded by A. Becker, and approved by all except for J. Yost who abstained.

Nicholas Thies – 4 Hour Water Well Drillers CE – Demonstrated attending a 4 hour training course and is requesting 4 CEPs.
A motion was made to recommend accepting this course for 4 Technical CEPs. This motion was made by J. Yost, seconded by G. Poppe, and approved unanimously.

Prior to taking a vote on the Theory, Selection, and Troubleshooting course, there was a discussion regarding how many points to award to the course. R. Dalton recommended only issuing one (1) CEP for this course. This was due to a large portion of the course being a review of laws and regulations. J. Yost and G. Poppe brought up how laws and regulations occasionally change. Well drillers and/or pump installers would want to learn about laws and regulations pertaining to areas which they are less familiar with. A. Becker agreed with J. Yost and G. Poppe and the vote followed.

Courses approved for course providers:
Theory, Selection, and Troubleshooting – Parkhurst Distributing Company – 7 Technical CEPs
A motion to approve Theory, Selection, and Troubleshooting was made by J. Yost, seconded by G. Poppe, and approved by all except for R. Dalton who was opposed.

A. Becker asked how the Board and Department plan to handle approving courses for the next licensing cycle. S. Reya reminded the Board that it is not mandatory for course providers to reapply for their previously approved course in a new licensing cycle if the content remains the same according to the rule. The Board shall reevaluate courses at the end of a three-year licensing cycle. A. Becker asked if the Department would need to go back and change the CEP allocations to be broken down to technical and safety credits. M. Ortega informed him that the Department is already tracking technical and safety points, even though they are not being counted as such this license cycle. Doing so will allow the correct format to be in place when necessary for the upcoming full three-year licensing cycle.

It was noted that the Water System Fundamentals course which was approved at the May 16, 2019 meeting would be superseded by the Theory, Selection, and Troubleshooting course which was just approved (as listed above). A. Becker asked how this will be handled in the future to make it clear that a course has been superseded and will not be offered. M. Ortega told the Board that he was
tracking all courses in database and that a note would be put into a course which was no longer relevant or superseded.

S. Reya explained to the Board that he had received some feedback regarding some of the technical exams issued by the NGWA. He said that he was informed that there are disinfection, water treatment, national groundwater quality questions on certain exams and that he felt that it might be out of the scope of the exam and equivalent NJ license category. The Bureau will seek clarification on this issue from NGWA to better aid license applicants.

7. Preparation for Hearing for September 19th Board Meeting for Possible Licensing Sanctions Against a Licensed Pump Installer-

J. Denyes, DAG, explained that the hearing for potential license sanctions will proceed in accordance with the Subsurface and Percolating Waters Act as it pre-dates the Administrative Procedure Act, which sets specific standards and procedures for hearings to which Boards must adhere. The Subsurface and Percolating Waters Act is not as detailed with regard to the format that must be followed.

J. Denyes continued to explain that the licensed Pump Installer or his counsel, if applicable, will have the ability to cross-examine witnesses against them. The Department can cross-examine any witnesses that the accused brings forward and will have one last chance to present all their information. After the Board has evaluated both sides of the case, decision making needs to be done in open session. On the day of the hearing if the Board members determine they need to take the presented information under consideration and render a decision at the next Board meeting, that is allowed. J. Denyes reminded the Board that they are making a recommendation to the DEP Commissioner to suspend/revoke the license if that is what they ultimately decide. The final decision is ultimately up to the Commissioner. If Commissioner accepts the Board’s recommendation to suspend or revoke the accused’s license, then the accused can appeal the decision.

She added that if A. Becker or any other members have questions, they can reach out to her in advance of the hearing provided that no quorum is present. A. Becker brought up that Department staff should not be copied on questions due to the nature of the questions being directed solely to the Board’s legal advisor.

J. Denyes said that in other hearings they have a running tape recorder and the designated person who writes minutes takes notes from the tape recorder. She said that there is nothing in the Department’s well drilling statute or rule regarding how specific the notes need to be. S. Reya expressed his concern that Department staff should not be taking minutes as is typically done at meetings and that it should be done by a third-party stenographer or transcriber. T. Pilawski agreed.

The Board discussed how in court cases a bailiff is always present so the Department may wish to have a State Trooper available. It was also noted that an alternative would be to utilize security staff that works at the Department’s offices for this role.

A. Becker asked who will notify the Board whether the accused will be showing up and if he will have an attorney present for the hearing. T. Pilawski said that the Department staff will notify the Board and that she will arrange to have a stenographer present at the hearing. J. Denyes said that the accused might request that the hearing be delayed and that the Board should extend whatever courtesies within reason. A. Becker polled the Board members whether they believed it was a good idea to postpone the hearing if necessary. A. Becker asked the Board if the accused requests an
extension, would they be willing to extend it by one meeting, to the November 21, 2019 meeting. All Board members agreed that this was reasonable.

G. Poppe made a motion that if the license holder responds to the hearing notification notice and requests an extension the Board would extend the hearing to November 21, 2019. R. Dalton seconded the motion and it was approved unanimously by the Board.

G. Poppe made a motion to go into executive session at the request of legal counsel to advise them on specific legal matters related to the hearing. J. Yost seconded the motion to go into executive session. The motion was approved unanimously at 10:56 am.

The Board resumed open session at 11:12 am.

8. Update on Closed Loop Geothermal Well Designs Proposed for Installation in New Jersey-
Three (3) items that the drilling contractor and Princeton University’s geothermal project engineer needed to send to the Department, which were requested by the Bureau and Board during the May 16th Board meeting were submitted and reviewed by the Bureau, stated S. Reya. He said that a revised well design installation sketch, safety data sheet of the epoxy and a section of the Rygan pipe were all evaluated. S. Reya discussed his concerns with their proposed grouting method and said that he emailed the Bureau’s concerns to the drilling company and engineer. It was further stated that Bureau and potentially Board representatives would be onsite to oversee the installation and ensure that the contractor is able to install the well in accordance with the design specifications and conditions that will be included upon issuance of the well permit. Both the proposed depth and annular space dimensions, which limit the amount of clearance for the casing and a tremie pipe that is large enough in diameter to facilitate placement of a Department-approved grout mix, pose challenges to the installation. As Board members previously noted at the May meeting, the geology and high volume of anticipated groundwater could also make the installation difficult. The Department still has not received the permit for the test well.

R. Dalton sent S. Reya detailed geophysical logs for Princeton University which were obtained in 1994, which he provided to the contractor. The geophysical log’s pump information shows that there are fracture zones down to 3000 feet that appeared to be water bearing. R. Dalton said that the Stockton Formation typically contains a lot of water and discussed potential difficulties of drilling with air rotary to 1,500 ft if a significant amount of water is encountered during drilling. R. Dalton asked if grout could be pumped down a small tremie down to 1500 feet. G. Poppe said that he believes it will be difficult to accomplish.

A. Becker requested that S. Reya coordinate with the Board when the drilling will take place. He informed the Board that a quorum cannot be present on site, so only a maximum of four Board members can be present at one time. Board volunteers will be notified once the Bureau is made aware of the drilling schedule.

9. SWAGE Casing Patch Liner Proposed to Repair Public Community Supply Well-
A proposal to repair a public supply well in South Plainfield that has tested positive with eColi has been submitted to the Bureau. Bureau staff identified numerous concerns with the proposed fix and sought the expertise of Board members in evaluating the proposal. The well in question is 70 feet deep and 18 inches in diameter. Subsurface Technologies proposed using the Precision SWAGE casing patch liner (SWAGE) to address an issue with this well. The SWAGE was approved for use in
New Jersey once before, however, when the SWAGE was approved at that time it was used to patch a small section of casing that had failed.

After performing a television inspection of this particular well, Subsurface Technologies noted that the casing was observed to be in poor condition though they were unable to identify a specific area of casing failure. According to the proposal submitted by Subsurface Technologies, they intended to install a packer immediately above the screen and line the original casing with 55 feet of the SWAGE to patch the well. A letter dated June 6th was submitted to the Department as an attachment to the well permit that was submitted. The Department sent the permit back because it was approved as a patch, not a liner and could not be properly grouted in place in accordance with the rule. S. Reya presented the Board members with some documentation about SWAGE and asked if the Board has any experience with this technology.

After reviewing the supplied documentation, the Board noted that the thin wall casing of the SWAGE liner patch does not meet the minimum casing wall thickness requirements of the Well Construction and Maintenance; Sealing of Abandoned Wells Rule, N.J.A.C. 7:9D. The SWAGE casing, which is expanded into place and held in place with a thin elastomer coating, is thinner than the minimum requirement prescribed by N.J.A.C. 7:9D-2.3. Additionally, Board members stated that although this technology is extremely effective as a repair technique, they did not believe it should not be used as a solution to address an entire length of deteriorated casing in a contaminated well. Placing thin stainless-steel casing up against the full length of deteriorated casing with a rubber layer in-between was viewed as a temporary measure that is not an appropriate way to deal with bacteriological contamination entering a well via casing failure at an unknown depth. It was also noted that the presence of a lead packer within the well also does not comply with the Safe Drinking Water Act and that modifying a well that does not, and would not, comply with standards should not be allowed.

M. Schumacher pointed out that Subsurface Technologies did not sufficiently explain why they could not install a smaller diameter casing to act as a liner inside of the original casing, which is typical practice. J. Yost said that he has used the SWAGE as a patch but has never used it as a liner. J. Yost recommended a new replacement well. R. Dalton brought up a concern with the steel being squeezed out by the SWAGE since it is already weakened. The Board’s collective opinion was that the SWAGE would not be an appropriate means of correcting the documented water quality problems with this well.

10. Enforcement Update: May 16, 2019 – July 18, 2019

Multi-Bureau Compliance Inspection

- **Issue:** Bureau staff recently assisted the Bureau of Water Systems Engineering and Southern Water Compliance Enforcement program with a site visit as part of a sanitary survey at an assisted living facility in Waterford, Camden County. Some of the wells were not permitted properly.
  - **Enforcement Action:** No further action by Well Permitting needed, facility must re-permit wells for current use, which differs from original permitted use.

New Investigation-phone complaint - June 14, 2019

- **Issue:** Suspected unlicensed, well pump installation activity in Toms River Township, Ocean County. A New Jersey licensed well driller reported two (2) unlicensed individuals replacing a well pump without the on-site supervision of a New Jersey licensed well driller or pump installer.
  - **Alleged Violations:** The complainant confronted the individuals, who admitted that they did not have a license and a licensed well driller was not present. A work truck onsite identified the pump company that employed both individuals performing the work. The
complainant reported that the licensed pump company owner (who is properly licensed) was not present.

- **Enforcement Action**: Bureau staff confirmed, during a phone conversation with the company owner that the two (2) individuals performing the pump work at that property were not licensed. Pending referral to Central Region Water Compliance and Enforcement for further processing.

**New Investigation-improper hand dug well decommissioning - June 26, 2019**

- **Issue**: Monmouth County Health officer and a New Jersey licensed well driller reported to the Department an instance of improper well decommissioning of a 12-foot hand dug well during house remodeling.
  - **Alleged Violations**: A worker on-site witnessed the dumping of construction debris into a newly exposed 12-foot hand dug well instead of properly decommissioning it. The worker reported the violation and the project was halted while local construction code officials investigated, and photo documented the incident.
  - **Enforcement Action**: Bureau staff confirmed that a violation did occur. Local Health Department will pursue penalties and remediation work of well to be performed by the property owner before further building may be conducted or CO is issued.

A. Becker asked J. Altieri if the Department was taking any action against the property owner. She said the Department is waiting to see the results of the Monmouth County Health Department’s investigation.

**Status update- Ongoing Administrative Hearings - ADR Requested by the Department**

- **Issue**: Administrative hearing requests filed by well drillers and their companies to dispute five cases of improper permitting, grouting and constructing of domestic and irrigation wells.
  - **Update**: Hearing requests were granted by the Department. DEP Office of Dispute Resolution requesting affected parties to take part in Alternate Dispute Resolution (ADR) process to attempt to resolve the issue without a hearing.

**11. Program Updates**

T. Pilawski informed the Board that Joe Mattle is officially the Section Chief of the Well Permitting Section as of July 6, 2019. The Board members congratulated and welcomed him.

T. Pilawski stated that the Department had received the compliance plan for the Woodbury geothermal well field. She, along with M. Schumacher and S. Reya, have completed the initial review of the document, which describes how the results of the recently completed Pilot Plan will lead to the re-commissioning/decommissioning of 80 improperly installed geothermal wells.

T. Pilawski provided an updated about the updates to the well rule. She stated that a launch meeting was recently held with other interested parties within the Department and the legal team. She added that the Department is hoping to have the proposal to the NJ Register by September for publishing and that feedback been positive due to industry support of the rule.

S. Reya talked about the turbidity issue that G. Poppe brought up at the May 16, 2019 Board meeting. He reviewed the Safe Drinking Water Act and was unable to find anything that addressed the sampling of wells containing high turbidity that could not be demonstrated to meet Safe Drinking Water Act (N.J.A.C. 7:10) standards when testing the raw water. He asked that G. Poppe attempt to get something in writing from the local administrative authority that indicated that water treatment
could not be used to ensure that water supplying a residence would meet standards post treatment. G. Poppe will follow up if unable to receive further clarification from the local health department.

12. Adjournment-
   At 12:03 pm a motion to adjourn the meeting was made by R. Dalton, seconded by J. Yost and approved unanimously.