



# State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION

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## New Jersey Department of Environmental Protection NJ State Well Drillers and Pump Installers Examining and Advisory Board Meeting Minutes for September 15, 2016

*Approved by the Board on November 22, 2016*

**Board Members Present:** Art Becker (Chairman) Gordon Craig, Joe Yost, Joe Pepe, Carol Graff, Richard Dalton and Steve Doughty

**Board Members Absent:** Gary Poppe (Vice-Chairman)

**NJDEP Bureau of Water Allocation & Well Permitting Staff Present:** Terry Pilawski, Pat Bono, Steve Reya, Julia Altieri, Michael Schumacher, Steve Kelly and Melia Stoop

**Board Legal Representative:** Jill Denyes, Deputy Attorney General (DAG), NJ Division of Law

**Members of the Public Present:** Denis Crayon, New Jersey Ground Water Association (NJGWA) President and Summit Drilling representative

### 1. Call to Order-

The meeting was called to order by Chairman Art Becker at 9:49 am with a quorum present.

### 2. Introductions –

The newest Bureau of Water Allocation and Well Permitting (Bureau) employee, Steve Kelly, was introduced to the Board. As noted at the last meeting, Mr. Kelly will assist the Bureau in reviewing Well Record and Well Decommissioning Report documents, along with conducting well searches. Mr. Kelly graduated from Stockton College with a Degree in Geology.

**3. Board Announcements-**

S. Doughty announced that he will be retiring from the Department and will, therefore, not be serving on the Board any longer. He anticipates that he will retire on November 1<sup>st</sup> unless drought-like conditions necessitate him staying longer to assist with related water supply issues. Chairman A. Becker thanked him for all of the hard work and insight he has brought to the Board throughout the years he has served. Mr. Doughty said he enjoyed his time working with each Board member. S. Doughty began serving on the Board in March of 2012.

**4. Review and Certification of the Minutes for the July 21<sup>s</sup>, 2016 Meeting –**

A motion to approve the minutes without change was made by G. Craig, seconded by R. Dalton and approved unanimously.

**5. 2017 Board Meeting Schedule –**

Board members scheduled their 2017 meeting dates as follows:

**Thursday, January 26**

**Thursday, March 16**

**Thursday, May 25**

**Thursday, July 20**

**Thursday, September 21**

**Tuesday, November 21**

**All meetings will be held at the main DEP Building (401 E. State St., Trenton) in the 4<sup>th</sup> floor Large conference room.**

The Board's two (2) conference calls will be scheduled at the next meeting. The remaining 2016 exams are scheduled for October 5 and December 7.

**6. Review of Applicants & Approval for the October 5, 2016 Master Well Driller, Journeyman, Journeyman B, Monitoring Well Driller, Soil Borer and Pump Installers Exams –**

**Journeyman-** A motion to approve all twelve (12) listed exam applicants was made by J. Yost, seconded by S. Doughty and approved unanimously.

**Journeyman B-** A motion to approve the sole listed exam applicant was made by J. Yost, seconded by Joe Pepe and approved unanimously.

**Monitoring-** A motion to approve all twenty-one (21) listed exam applicants was made by R. Dalton, seconded by J. Yost and approved unanimously.

**Soil Borer-** A motion to approve the eight (8) listed exam applicants was made by G. Craig, seconded by C. Graff and approved unanimously.

**Pump Installer –** A motion to approve all five (5) of the listed exam applicants was made by G. Craig, seconded by J. Pepe and approved unanimously.

It was noted that there were no applicants for the **Master Well Driller** exam. Further, it was mentioned that 47 exam applications were approved for the October exam, which is the highest number of applicants to be scheduled for one exam date in many years.

**7. GeoPro Geothermal Grout Field Demo –**

A field demonstration of GeoPro’s Power TECx geothermal grout will be held on September 27<sup>th</sup>, said S. Reya. Two (2) different mixtures containing bentonite and Power TECx thermal enhancement compound will be mixed and pumped into geothermal wells currently being drilled at a site in Cumberland Co. Board members G. Craig, R. Dalton and S. Doughty have volunteered to attend and determine if the products can be adequately mixed and pumped into the bores in accordance with manufacturer specifications. Samples of the products from both the grout mixer hopper and borehole “return” will be obtained from an onsite GeoPro representative and sent to an independent lab for permeability testing in accordance with ASTM method D5084. S. Reya will email the site information and specific time of the demo to the three (3) Board volunteers in the next few days.

**8. Response to the Complaint Letter Regarding Geotechnical Soil Borings from Rod Simon, PE –**

Following up on an issue from two (2) previous meetings, the Board continued discussion of a March 7, 2016 letter from Mr. Rod Simon, PE from Simon Engineering. The letter, which alleged improper methodology (utilizing continuous flight augers) to conduct soil borings for geotechnical engineering, had been discussed at the Board’s May 26 and July 21, 2016 meetings. P. Bono noted that the draft response for Chairman A. Becker’s signature reads “While the Subsurface & Percolating Waters Act, N.J.S.A. 58:4A-4.1 et seq. and Well Permitting regulations, N.J.A.C. 7:9D et seq. establish permitting, construction, and decommissioning requirements for soil borings performed in the State, neither the Act nor the regulations specify which methods are required for the collection of borings in any given situation. Borings are collected throughout the state for a wide number of applications, and the Board is not charged with the enforcement or oversight of regulations that are considered the purview of other state or federal agencies regarding environmental sampling or construction codes. The incidents that you describe do not appear to constitute a violation of N.J.A.C. 7:9D, and therefore would not fall within the Board’s prescribed authority.” Board members all agreed that the reported activity does not fall within the purview of the Board and the letter should be sent out as currently written. A. Becker will sign the letter following the meeting.

**9. Recent Bureau Projects-**

S. Reya described a couple recent projects currently in progress within the Division. One involves an observation well, expected to be over 800 ft. deep to be drilled in Lower Twp., Cape May County. Data obtained from this deep observation well will

be utilized by multiple water systems in Cape May to assess saltwater intrusion with the Kirkwood Atlantic City 800-ft. sands aquifer utilized for public water supply within the region. The well will be strategically located to allow monitoring of water quality trends (chloride and sodium levels) as an early indicator before impacts are observed at the supply wells. It is expected that Well Permitting, Water Allocation and Geologic & Water Survey staff will be onsite for different phases of the drilling and well installation to ensure that the well is screened in the appropriate formation and properly constructed.

A second project involves locating and decommissioning five (5) wells drilled around 1918-1919 for potable water supply of a former village used to house WWI munitions plant workers. Well

Permitting has been working with NJDEP Green Acres staff with the review of historic plans and files to ascertain the well locations for the “lost” wells believed to be in a heavily wooded area of a large parcel of land in Atlantic County. File reviews and field work to locate the wells has been ongoing for over a year. Recently, a drilling contractor was brought in to perform ground penetrating radar (GPR) to locate and subsequently decommission the wells in accordance with N.J.A.C. 7:9D. The wells, which must be drilled out and cleared to the original listed depths, must be decommissioned before Green Acres can acquire the property, which spans over 600 acres. S. Reya expects the well sealing activities to commence within the next few weeks.

#### **10. Drought Status Update by Steve Doughty –**

S. Doughty briefed the Board regarding drought conditions and the impact on the State’s water supplies. Rainfall, stream flows and shallow ground water levels remain well below long-term average levels for this time of year. Reservoir storage in key systems also is below long-term averages and the rate of depletion in many reservoirs is higher than expected for late September. This is due to unseasonably warm weather and continued high water demands.

On July 25, 2016, the NJDEP issued a Drought Watch for 12 northern NJ counties that make up the Northeast, Northwest, and Central drinking water supply (drought) regions. The purpose of a Drought Watch is to raise public awareness, formally alert water suppliers in the affected regions, and seek voluntary cooperation to conserve water. The goal is to moderate demand and preserve existing supplies in case dry conditions persist.

Mr. Doughty mentioned that, should dry conditions continue, a Drought Warning designation may become necessary. A Warning is a non-emergency, supply-side response by the NJDEP to preserve and balance existing water supplies within affected regions. Typically this involves modifying regulated stream passing flows, ordering water transfers and other related measures. The objective under a Warning is to avert or lessen the impact of an impending water emergency by balancing supplies

between systems/regions in surplus and deficit. Prior to ordering any actions under a Drought Warning, the NJDEP must first hold a public hearing. Although a specific date has not yet been set, an announcement could be made in the coming weeks to provide public notice of a hearing to be held sometime in October.

## **11. 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) Unsettled Violations-**

On August 22, 2016, the Bureau received and approved a modified Domestic well permit to allow a NJ licensed well driller to properly reconstruct the unpermitted, improperly constructed 200 foot well in Hope Twp., Warren County that was left incomplete by a Pennsylvania-based well drilling company. The licensed driller will be required to ream out the remnants of the existing well and re-install at least 120 feet of 6” steel casing to account for not meeting the minimum distance requirement between the well and existing septic field. Bureau staff intend on witnessing the reconstruction of this well which is expected to be completed in the next few weeks.

### **B) Outstanding Well Records and Decommissioning Reports-**

Two (2) well drilling companies were contacted in July and August regarding their failure to submit outstanding well records owed to the Bureau from the years 2000 to 2015. The total number of paper well decommissioning reports received and processed continues to decline with the Bureau averaging 40 paper decommissioning reports per month.

### **C) Field Work-**

Well Permitting Section staff performed ten (10) field inspections during the past eight (8) weeks. Staff conducted various field inspections of abandoned well sites, witnessed local monitor well drilling and specialized well decommissioning activities. Bureau staff spent several field days gathering compliance evidence of suspected well drilling violations against well drillers suspected of violating the well construction regulations mostly alleged grouting violations.

### **D) New Compliance Investigations—**

The Bureau is currently investigating an incident where a New Jersey Journeyman licensed well driller and his company are suspected of improperly decommissioning a 65 foot irrigation well, specifically, by not using the correct method and amount of bentonite grout as per the regulations to fill the open casing. The Bureau was alerted, when a second licensed NJ well driller contacted the Bureau for approval of an alternate decommissioning method of a 65 foot irrigation well that had been uncovered during road work excavations. According to the second driller, the uncovered well also had a pump stuck in it that could not be removed, and it appeared that someone had improperly sealed the well based the presence of dry Hole Plug (bentonite chips) at the top of the well to only approximately one foot below the top

of the well casing, above the cut off water line. Bureau staff field inspected the site and collected additional information verifying the current state of the well. A review of Bureau files revealed that a completed, conforming well decommissioning report for the same well was already on file with the Bureau.

During the same time, a second case of alleged, improper well construction involving the same New Jersey Journeyman licensed well referenced above and his company was reported to the Bureau. The property owner alleged that the licensed NJ well driller used a small amount of grout material to seal the annular space of the well of his new irrigation well. Bureau staff inspected the well at this property and confirmed that the well appeared to have very little grout surrounding the annular space. Notices of Non-Compliance were sent by the Bureau to the licensed driller and his company for suspected violations of the well rules for improper well decommissioning and well construction. The driller responded with notarized statements and field logs documenting that wells in question were properly decommissioned and constructed with ample amounts of grouting material in accordance with N.J.A.C. 7:9D et sq. Further investigation of the issues of alleged non-compliance by the Bureau and Central Region Enforcement is pending.

**12. NJDEP Program Updates (Status of the Revisions to N.J.A.C. 7:9D)-**

T. Pilawski stated that four (4) meetings have been scheduled to work on the Draft Well Rules. In the coming weeks she will be meeting with Kristen Tedesco, Chelsea DuBrul and Kati Angarone of the Division of Water Supply & Geoscience. Additionally, Sue Savoca and Jill Denyes, Deputy Attorney Generals from the NJ Division of Law, will be in attendance to finalize the rule language prior to sending the latest draft to the Governor's office.

**13. Revised Total Coliform Rule (RTCR)-**

J. Pepe raised a potential issue he recently observed in the pump industry: licensed pump installers and well drillers are being asked to complete RTCR Level 2 assessment forms without sufficient knowledge or training. Mr. Pepe noted that there seems to be an inaccurate assumption by NJDEP staff within the Bureau of Water Systems Engineering Compliance Assistance unit that all NJ licensed pump installers and well drillers have sufficient knowledge and training to adequately complete the forms required by the Department. He noted that pump installers are trained in the maintenance, diagnostic, installation and repair practices with regard to well pumps and are not exposed to or trained to diagnose water quality issues related to bacterial contamination. Sections of the RTCR Level 2 assessment form that pump installers are being asked to certify contain lab sampling data for the water quality, which he believes is not within the domain of a licensed pump installer or driller. Also, the form lists information on the water treatment system operation, which he believes would be completely unknown to a pump installer or driller as their inspection of the water system would be limited to a specific date. It would be near impossible for

them to have direct knowledge on the routine maintenance and operational status of a treatment system.

The RTCR Level 2 assessment form, which is 8 pages, contains a certification section for only one licensed “qualified party” (aside from the water system owner/operator). Such information, if incorrect and provided by the pump installer or driller could potentially leave this licensed person legally liable for inaccurate information, said J. Pepe. He questioned how pump installers and drillers could sign a certification statement that covers water testing and water system operation categories. He felt that they should only be asked to certify components of the system that are within the domain of what they are licensed to perform in accordance with Department Rules. Further he noted that the Department needs to provide training and guidance documents to better instruct the licensed community as to what the Department expects them to provide. T. Pilawski said she will relay Mr. Pepe’s concerns and suggestions to Linda Ofori, Section Chief within the Bureau of Water Systems Engineering. Her intention is to have both Bureaus (Water Allocation & Well Permitting and Water Systems Engineering) work together to create a guidance document on filling out the Level 2 Assessment Form and disseminating it to licensed pump installers and drillers.

#### **14. Adjournment-**

A motion to adjourn was made by Gordon Craig at 11:32 am, seconded by J. Yost and approved unanimously.