

## Staff Report Addendum

03/16/2017

In the matter of TRANSCO EXPANSION PROJECT – COMPRESSOR STATION 203

Water Allocation Application No. 1322D, to temporarily divert water from a dewatering trench sump pump system in the following Municipalities and County:

Chesterfield Twp. and Bordentown Twp.          Burlington County

In compliance with the provisions of N.J.S.A. 58:1A-1 et seq., TRANSCO EXPANSION PROJECT, 2800 Post Oak Blvd, Houston, Texas, 77056, filed an application with the Department of Environmental Protection on December 8, 2015 and an amended application on February 16, 2016 for approval of plans to divert a maximum of 7 million gallons of water during any month (mgm) at a maximum diversion rate of 6,830 gallons per minute (gpm) from a series of approximately 34 trenches; 2 feet to 13 feet deep. The trenches are mainly located in Chesterfield Twp. with a small portion in Bordentown Twp., Burlington County.

### Background

Public notice was required as this is an application for a new diversion. At the conclusion of a February 23, 2016 conference call between the Bureau of Water Allocation & Well Permitting (Bureau) and AECOM (Transco's Consultant), it was determined that a public hearing should be scheduled based on the level of local interest regarding the project. A Notice of Application and Public Hearing was published on April 10, 2016 in the Burlington County Times. A public hearing was held on April 26, 2016 at 5:00P.M. at the Chesterfield Elementary School, 30 Saddle Way,

Chesterfield, New Jersey 08515 to afford the public an opportunity to be heard on the application.

After the close of the hearing there was a request that the public comment period previously published to close on May 3, 2016 and extended at the hearing until May 17, 2016 be further extended in order to allow for the transcript of the public hearing to be made available for a sufficient period of time before the close of comments. The Bureau determined that this was a reasonable request so the public comment extension that was established at the end of the hearing of May 17, 2016 was extended to May 31, 2016. The Notice of Extension of Public Comment Period was published on May 10, 2016, in the Burlington County Times.

### **Attendance/Hearing Commenters**

Approximately 150 were in attendance at the April 26, 2016 TRANSCO EXPANSION PROJECT – COMPRESSOR STATION 203 public hearing. Approximately 126 individuals signed in at the hearing to receive a copy of the Decision Maker's Statement and the Hearing Officer's Report. There were a total of 46 commenters that spoke at the hearing according to the hearing transcript.

The initial commenters were Robert Clifton, NJ Assemblyman 12<sup>th</sup> Legislative District; Heather Demirjian, Chesterfield Twp. Attorney; Matthew Mulhall, Chesterfield Twp. Environmental Consultant; Jeremy Liedtka, Mayor of Chesterfield Twp.; Jill Popko, Mayor of Bordentown Twp.; Jim Cann, Chesterfield Twp. Committeeman; Bill Harrison, Bordentown Twp. Attorney; Peggy Hallion, Chesterfield Twp. Elementary School Board of Education; and Andrea Katz, Chesterfield Twp. Elementary School Board of Education. The remaining commenters consisted of residents, concerned citizens, environmental organizations, and local groups.

### **Site Inspection**

A general site inspection was conducted at the TRANSCO EXPANSION PROJECT – COMPRESSOR STATION 203 on June 2, 2016. Jennifer Myers, Southern Permitting Section Chief and Andy MacDonald, Environmental Specialist 3 of the Bureau conducted the inspection. The following items were reviewed as part of the inspection: local land use; nearby wells; surface water bodies; delineated wetlands; local flora and fauna; general site topography; soil type; potential contamination sources; agricultural activity surrounding the site; local residential and business activity surrounding the site, and site photos were taken. A portion of these inspection findings may be discussed, where necessary in the responses provided.

### **Hydrogeology**

The surficial aquifer predominantly present is the Pensauken Formation and also a small portion of the overlying Weathered Coastal Plain Formation. The main discussion will be on the Pensauken. The Bureau reached out to the New Jersey Geologic and Water Survey (NJGWS) on July 15, 2016 to provide a discussion on the local hydrogeology. According to comments received on August 11, 2016 and August 15, 2016 from the NJGWS and review of the Surficial Geology Trenton East Quad (OFM-102), the Pensauken is a sand and pebbly sand, the uppermost 10-15 feet is weathered, at the site may have a thickness of 5 to 25 feet, is too thin and high-standing to be an aquifer or tapped for large volume use, water-table conditions prevail that fluctuate seasonally, is moderately permeable, has a high transmissivity, readily absorbs water from precipitation, and has increased recharge areas that increases recharge to the aquifers below. NJGWS does not anticipate that groundwater will be readily encountered throughout the site as the fluctuating water-table is not expected to be encountered at many of the perimeter trenches, box excavations, and line trenches. Per NJGWS, it appears that the pre-Pensauken topography (top of the Woodbury) slopes southwest parallel to the modern Sucker Run valley, which should indicate the direction of shallow groundwater flow in the Pensauken. In

addition, the Pensauken should have little to no acid-forming potential as the sediments at the site are considered mostly to periodically oxygenated (aerated). Sediments of the Coastal Plain that contain pyrite (main acid generator) and remain anoxic for long periods have more acid-forming potential. The next deeper formation that may be encountered at the site in only a few construction locations is the top of the Woodbury Formation (a.k.a. Woodbury clay). The Woodbury is the upper portion of the Merchantville-Woodbury confining unit and below the Woodbury is a somewhat lesser confining aquiclude known as the Merchantville. Per comments received on August 11, 2016 from the NJGWS, review of the Surficial Geology Trenton East Quad (OFM-102), and Pre-Quaternary Geology of the Trenton East Quad (GQ-341), the Woodbury Formation has a thickness of approximately 50 to 85 feet (Merchantville ~ 50 to 100 feet), is considered the coastal plain's best aquiclude, water-bearing character is poor, and may contain potential acid-producing sediments. Soil pH is the measure of the pH of soil water, which depends on the hydrogen ion (H<sup>+</sup>) activity in solution. The Woodbury if encountered at this location may become naturally acidic for three major reasons: exposure to rainfall and leaching, acidic parent material, and decay of organic matter which produces hydrogen ions. Below the Merchantville-Woodbury confining unit is the Magothy Formation. Locally the Magothy is encountered near County Route 528 at a depth of approximately 135 to 190 feet below ground surface with an approximate thickness ranging from 50 to 75 feet (best estimation) at the site. The general depth to the Magothy and the general thickness of the Merchantville-Woodbury confining unit were confirmed during the well logging of two observation wells that were constructed at the site during the first week in November 2016. The Magothy is comprised of white quartz sand, fine to coarse grained, locally gravelly, and interbedded with thin dark gray clay-silt in the upper most part. This aquifer is considered the source of water to domestic wells in the region. The Merchantville-Woodbury confining unit's characteristics act as a natural barrier which protects the Magothy from surficial contamination and anthropogenic activities.

## Response to Comments

1. **Comments-** Multiple comments were received about Transco amending page 5 of their application three times. Transco filed their original application with the Department of Environmental Protection on December 8, 2015 for approval of plans to divert a maximum of 6.42 million gallons of water during any month (mgm) at a maximum diversion rate of 90 gallons per minute (gpm) (A-1), an amended application on February 3, 2016 for approval of plans to divert a maximum of 7 mgm at a maximum diversion rate of 156.8 gpm (A-2), an amended application on February 11, 2016 for approval of plans to divert a maximum of 305 mgm at a maximum diversion rate of 6,830 gpm (A-3), and a final amended application on February 16, 2016 for approval of plans to divert a maximum of 7 mgm at a maximum diversion rate of 6,830 gpm (A-4).

**Response-** The first amendment request (A-2) was required based on the fact that pumping at a maximum diversion rate of 90 gpm as requested in the original application (A-1) would not allow the applicant to divert up to 6.42 mgm so the applicant mathematically derived that a maximum diversion rate of 156.8 gpm would allow them to divert 7 mgm (i.e.,  $7 \text{ mgm} / 31 \text{ days/month} / 1,440 \text{ mins/day} = 156.8 \text{ gpm}$ ). It was then explained by the Bureau that the newly calculated maximum diversion rate should be amended as the requested monthly allocation and the maximum diversion rate are not typically a direct relation of one another as part of a dewatering scenario calculation. It was further explained that the maximum diversion rate should equate to the total of the physical pump capacities of the dewatering pumps onsite that may be potentially utilized at any one point in time. The applicant then submitted a second amended application (A-3) that increased the requested monthly allocation to 305 mgm based on the maximum diversion rate being increased to 6,830 gpm, the total of the physical pump

capacities identified that may be potentially utilized by their dewatering contractor. The Bureau then reiterated that the requested monthly allocation and the maximum diversion rate are not typically a direct relation calculation as discussed above, even conversely (i.e.,  $6,830 \text{ gpm} \times 1,440 \text{ min/day} \times 31 \text{ days/month} = 305 \text{ mgm}$ ). The applicant then submitted a third and final amended application (A-4) that returned the requested monthly allocation to 7 mgm (Table D.5, Technical Report) and left the maximum diversion rate at 6,830 gpm (total of pump capacities identified by dewatering contractor that may be utilized).

2. **Comments-** Multiple comments were received about the need for the requested monthly allocation of 7 mgm and maximum diversion rate of 6,830 gpm.

**Response-** The requested monthly allocation was technically supported by the consultant's analysis as calculated and described within the Technical Report and tallied in Table D.5. The requested maximum diversion rate was adjusted after contacting the dewatering contractor and obtaining the sum of all the pump capacities that may be potentially utilized during the dewatering. It is common for the Bureau to address these requested dewatering limits during the technical review of the application to either confirm them or have them amended to be more concise and set out within the Technical Report or adjusted once the dewatering contractor has been consulted regarding the amount and capacities of their pumping equipment that they plan to have onsite and utilized as needed. In addition, it is important for the applicant not be too conservative in their requests as dewatering projects have had issues with staying within their allocation limit based on under estimating the quantity of water that may be encountered during dewatering. Furthermore, the Bureau does not anticipate that the applicant will divert up to their allocation limit on a monthly basis or pump at the maximum diversion rate based on the known parameters and characteristics of the surficial Pennsauken Formation and the underlying confining Merchantville–Woodbury Formation, as identified above in the Hydrogeology

section. The Bureau takes into consideration peak potential demands of the project when developing and approving allocation limits.

3. **Comments-** Multiple comments were received about the duration of the dewatering and that 10 months of dewatering or more should not be considered a temporary diversion.

**Response-** Dewatering may begin on the effective date of the permit or later and continue for approximately 10 months. Pursuant to N.J.A.C. 7:19-1.4(c) a temporary dewatering permit is required for the diversion of 100,000 gallons of water per day (gpd) or more for more than 30 days in a consecutive 365-day period for construction purposes when the rate of diversion may exceed natural replenishment of the water resource. N.J.A.C. 7:19-2.3 considers this diversion to be temporary as a result of construction related activities.

4. **Comments-** Multiple comments were received about the diversion from a series of approximately 34 trenches 2 feet to 13 feet deep; either one at a time, from multiple trenches, or from all trenches combined causing a much greater maximum radius of influence (ROI) than calculated by the consultant of 400 feet.

**Response-** The plan provided in the Technical Report stated that sequential trenching will be utilized and trenches will be backfilled as the utilities are installed so that the maximum amount of open trench will be minimized, limiting the cumulative dewatering impact. The Bureau considers this to be consistent with standard construction activities. It is unreasonable to expect that the total length of trench of 7,659 linear feet could be safely excavated, dewatered, and backfilled all at once on a few acres of land with an anticipated set size of dewatering crew members, construction members, and dewatering/construction equipment. Therefore, the Bureau does not anticipate any of the calculated ROIs to be larger than the maximum of 400 feet considering the unconfined nature of the surficial Pennsauken Formation. Multiple ROIs may overlap but as the diversion is temporary in nature and the dewatering activities are phased, the

Bureau would not expect there to be a groundwater influence occurring off site as reflected in the Technical Report.

5. **Comments-** Multiple comments were received about the applicant's estimate of the quantity of water to be diverted monthly of up to 7 mgm based upon their engineer's calculations. Many commenters felt that this was a calculation error, did not match what was identified in the Technical Report, or was considered to be excessive.

**Response-** Monthly diversion requests are considered only estimates based on scientific calculations and preliminary field investigations. In depth aquifer testing is not required for a temporary diversion and most estimates can be calculated based on known aquifer parameters. Table D.5 of the Technical Report clearly indicates that there is potential for up to 7 mgm to be diverted. The Bureau agrees with the potential trench infiltration rates, their tally, and is agreeable with the diversion request of up to 7 mgm. The Bureau anticipates that much less may be diverted on a monthly basis but it is recommended as standard practice that the applicant's monthly request should not be on the conservative side and be more liberal in case there is more water encountered than estimated/calculated or where large quantities of stormwater may be encountered during the project. As indicated in **Response to Comments 2** above, the Bureau takes into consideration peak potential demands of the project when developing allocation limits. Pursuant to N.J.A.C. 7:19-3.5, the requested diversion limit of 7 mgm is in the smallest class type (diversions from 3.1 mgm to less than 15.5 mgm) permitted by the Bureau.

6. **Comments-** Multiple comments were received that there was not an accurate accounting of small capacity wells and/or domestic wells within a one-quarter mile radius of the project site and there may be shallow wells completed in the surficial Pensauken Formation used for irrigation or potable supply.



**Response-** Based on this comment and the potential impact to local shallow wells from the proposed dewatering prompted the Bureau to perform an additional review of all local parcels within a one-quarter mile radius of the project (vacant or occupied) on August 2, 2016. The Bureau then requested that AECOM conduct a more thorough local well survey encompassing every parcel within a one-quarter mile radius of the project site that had a residence located on it, was vacant, or there was evidence of some sort of diversion potentially occurring on a parcel. AECOM confirmed on September 13, 2016 that all Bordentown Township parcels within a one-quarter mile radius of the project receive public water supply from Bordentown Township Water Department. The Bureau believes the list of wells below to be the most updated accounting of known local wells and potential wells within a one-quarter mile radius of the project site. In addition, the Bureau has not received any other well lists from Bordentown Township, Chesterfield Township, other local public interests, or nearby residents. Well Records indicate that the wells range in depth from one irrigation well at 12 feet and the remaining wells at 110 feet to 200 feet. These wells include:

| Well Address | Well Permit No./ Use | Depth (feet) | Aquifer | Capacity (gpm) | Distance (feet) |
|--------------|----------------------|--------------|---------|----------------|-----------------|
| NA           | 2800019108/ D        | 150          | Magothy | 10             | 1,250           |
| Daniel Ave.  | 2800004031/ D        | 152          | Magothy | 8              | 484             |
| 2 B-C Rd.    | 2800031199/ DR       | 156          | Magothy | NA             | 1,090           |
| 3 B-C Rd.    | 2800013127/ DR       | NA           | Magothy | NA             | 1,021           |
| 5 B-C Rd.    | 2800031200/ DR       | 154          | Magothy | NA             | 962             |

| Well Address  | Well Permit No./ Use | Depth (feet) | Aquifer   | Capacity (gpm) | Distance (feet) |
|---|----------------------|--------------|-----------|----------------|-----------------|
| 6 B-C Rd.   | 2800008768/ D        | 150          | Magothy   | NA             | 908             |
| 4 Daniel Ave.   | 2800041923/ I        | 12           | Surficial | NA             | 983             |
| 151 Hogback Rd.   | 2800046527/ D        | 160          | Magothy   | 45             | 1,345           |
| Crosswicks Rd.  | 2800008506/ D        | 150          | Magothy   | 10             | 1,645           |
| 7 B-C Rd.   | 2800029216/ D        | 180          | Magothy   | 0              | 1,383           |
| 21 B-C Rd.  | 2800010639/ D        | 200          | Magothy   | 10             | 315             |
| 223 B-C Rd.   | 2800011221/ D        | 100          | Magothy   | 10             | 1,144           |
| 231 B-C Rd.   | 2800056829/ DR       | 160          | Magothy   | 12             | 478             |
| NA  | 2800011790/ D        | 110          | Magothy   | 10             | 1,125           |
| 44 B-C Rd.  | 2800014681/ DR       | 200          | Magothy   | 10             | 965             |
| 44 B-C Rd.  | 2800011958/ D        | 125          | Magothy   | 10             | 965             |
| NA  | 2800007701/ D        | 150          | Magothy   | 10             | 1,437           |
| NA  | 2800012870/ D        | 140          | Magothy   | 8              | 1,498           |
| NA  | 2800002486/ D        | 125          | Magothy   | 10             | 1,043           |
| 33 B-C Rd.  | 2800016750/ D        | 200          | Magothy   | 10             | 902             |
| 6 Daniel Ave.   | NA                   | NA           | NA        | NA             | 681             |
| 7 Daniel Ave.   | NA                   | NA           | NA        | NA             | 717             |
| 11 B-C Rd.  | NA                   | NA           | NA        | NA             | 719             |
| 47 B-C Rd.  | NA                   | NA           | NA        | NA             | 1,641           |
| 35 B-C Rd.  | NA                   | NA           | NA        | NA             | 1,031           |
| 31 B-C Rd.  | NA                   | NA           | NA        | NA             | 687             |
| 46 B-C Rd.  | NA                   | NA           | NA        | NA             | 1,078           |
| NA Not Available, B-C Bordentown-Chesterfield, D Domestic Well, DR Domestic Replacement Well, I Irrigation Well |                      |              |           |                |                 |

There are no public water supply wells within a one-mile radius of the project.

7. **Comments-** Multiple comments were received that this diversion request would cause the spread of groundwater contamination into local potable sources of drinking water or would contaminate a surface waterbody identified as Sucker Run and one of its tributaries.

**Response-** As reflected in the draft Dewatering Staff Report, the applicant identified that there may be four potential pollution sites located within a one-quarter mile radius of the dewatering activity. Additional information received from AECOM on October 6, 2016 regarding the sites identified in the table below, which has been updated accordingly. These updates confirm the Bureau draft findings that in accordance with N.J.A.C. 7:19-2.2(f)4, the diversion will not spread ground water contamination and will not interfere with any ground water remediation plan or activity. These include:

| Address of Potential Source  | Distance<br>(feet)                                   | Aquifer<br>Affected    | Status                          |
|--|--|------------------------|---------------------------------|
| James Investment LLC, 24<br>Bordentown-Chesterfield Road *                                   | 800' southwest<br>B 93 Lot 9.01<br>(Bordentown Twp.) | Surficial<br>Formation | NFA issued<br>February 18, 2003 |
| Michael Marlin, 31<br>Bordentown-Chesterfield Road<br>(across the street from the project) * | 454  | Surficial<br>Formation | NFA issued<br>May 16, 2012      |
| 35 Bordentown-Chesterfield Road *  | 650  | Surficial              | NFA issued                      |
| 35 Bordentown-Chesterfield Road *  | 686  | Formation              | May 27, 2003<br>Closed          |
| *Note: None of these sites are part of the current NJDEP Known Contaminated Sites List.      |  |                        |                                 |

As noted in the table above, “None of these sites are part of the current NJDEP Known Contaminated Sites List.” In addition, the potential sites that could be identified are outside the anticipated radius of influence of the proposed dewatering activity. Therefore, the proposed diversion is not expected to contribute to the spread of groundwater pollution to local potable sources of drinking water or surface water bodies due to there being no identified known contaminated sites within one-quarter mile radius of the dewatering activity. Furthermore, NFA (No Further Action) letters were issued for each location.

8. **Comments-** Multiple comments were received concerning the quality of the water being discharged, its permitting, its erosion potential, the method(s) to be utilized to recharge the surficial aquifer being dewatered, and how the volume of discharge will be accounted for.

**Response-** The quality of the discharge will fall under the Short-term De Minimis Discharge Permit applied for by Transco to the Division of Water Quality (DWQ). A certification form and the untreated discharge lab analysis are required to be submitted to DWQ at least 14 days prior to discharge. With regards to erosion control, a 5G3 permit was approved on March 9, 2016 by DWQ that regulates stormwater and requires that a Stormwater Pollution Prevention Plan (SPPP) be submitted for review and approval prior to initiating the discharge. In addition, a Soil and Erosion Sediment Control Plan (SESCP) was applied for according to the applicant with the Burlington County Soil Conservation District that requires that Best Management Practices (BMPs) be utilized to control erosion. The SPPP and SESCO work in tandem until construction is complete at the site. The comments addressed above are not within the purview of the Bureau and are therefore outside the scope and purview of Temporary Dewatering Permit 1322D (TDP 1322D). As reflected in the draft Dewatering Staff Report, the Technical Report indicated utilizing one or more of the following method(s); settling tanks, filter bags, and hay bale structures then discharged onto vegetated upland portions of the site. These method(s) are

considered industry standard and commonly used to control temporary construction dewatering discharges. The quantity of water diverted and ultimately discharged will be measured by totalizing flow meter(s) pursuant to N.J.A.C. 7:19-2.14(a)4 and as required in the TDP 1322D.

9. **Comments-** Multiple comments were received concerning potential impacts to the freshwater wetlands (including vernal pools) within and outside of the zone of influence of the diversion, the potential impacts to local flora and fauna (numerous photos were received), and threatened or endangered species that may be inhabiting these wetlands.

**Response-** The Bureau forwarded a copy of all comments and photographs to the Division of Land Use Regulation (DLUR) on June 10, 2016 for their review and consideration in evaluating their permit applications for this facility. Two additional public hearing hearings were held by the Division of Land Use Regulation (DLUR) on October 13 and 17, 2016. DLUR issued the Freshwater Wetlands Individual Permit – Water quality Certificate March 13, 2017. Potential impacts to Freshwater Wetlands are under the purview of DLUR.

10. **Comments-** Multiple comments were received concerning the Federal Energy Regulatory Commission (FERC) application requirements, the validity of the information submitted as part of the FERC application, and the issuance of the FERC Certificate on April 7, 2016 was premature and should have been upheld until NJDEP permits were reviewed and approved. Additional comments were also received that FERC and the New Jersey Board of Public Utilities (BPU) did not do a comprehensive examination of the potential negative impacts of the project and the proposed Southern Reliability Link (SRL) pipeline and that this project and the SRL need to be reviewed and analyzed together for their cumulative potential impact to environment.

**Response-** The New Jersey Natural Gas SRL project is reviewed on its own merits and will be required to obtain the necessary permits and approvals solely related to that project. These

concerns are outside the purview of the Temporary Dewatering permit for this facility.

11. **Comments-** Multiple comments were received about the project not being in the public interest related to generally not wanted, not needed, and not necessary. Additional comments were received that the Department viewing other governmental approvals of the project signifies that it is the public interest. Other comments were received that the proposed diversion is not in the public interest.

**Response-** The applicant submitted information that the temporary diversion is necessary to safely construct the project which the Bureau considers to be in the public interest. The project itself is not required to be demonstrated to be in the public interest, only the proposed diversion. As previously reflected in the draft Dewatering Staff Report, upon receipt of all necessary Federal, State, County, and local approvals, the proposed diversion would be considered to be in the public interest. Furthermore, the Bureau has analyzed the proposed diversion at the recommended rates as detailed in the Technical Report and application and determined that they are reasonable and acceptable requests. Therefore, the evaluation of the proposed diversion at the recommended rates and that the fact that the proposed diversion is temporary in nature signifies that the project's proposed temporary diversion for the safe construction of the project is in the public interest and in accordance with N.J.A.C. 7:19-2.3(g)1. Also see **Response to Comments** 1, 2, and 5 above.

12. **Comments-** Multiple comments were received that the project is not just and equitable to local residents and should not be considered to be in the public interest. Additional comments were received that the proposed diversion is not just and equitable to other water users.

**Response-** As outlined in N.J.A.C. 7:19-2.3(g)2, the applicant shall provide all information which establishes that the plans for the proposed diversion are just and equitable to other users affected thereby and that the withdrawal does not adversely affect other existing withdrawals of

groundwater or surface water. As reflected in the draft Dewatering Staff Report, the proposed diversion is temporary in nature, local wells appear to be screened at depths that are confined from the surficial aquifer, based on available well records, and the applicant is required to have a Contingency Plan (CP) in place should any local existing groundwater withdrawals be adversely impacted from the proposed diversion. On September 2, 2016 AECOM submitted their CP for review and approval. Per Section 3.2, Transco installed two pairs of sentinel monitoring wells, one well completed in the shallow Pensauken Formation where the temporary diversion is to occur and one well completed in the deeper Magothy Formation where the domestic wells receive their water. These wells were constructed prior to the diversion in order to collect baseline pre-construction groundwater levels and then collect water levels on an hourly basis during dewatering to determine if the dewatering activity is affecting water levels during construction. Any observed changes in water levels should be identified onsite prior to potentially impacting offsite wells. This should enable Transco to adjust their dewatering activity accordingly to prevent any offsite well impacts. In addition, Transco has coordinated with the only property owner within 150 feet of the construction activity to complete a pre-construction water sample and has offered to do the same for any well within 600 feet of the project site, east of the New Jersey Turnpike. The CP was approved on November 7, 2016, the day after the four sentinel monitoring wells were completed. Bureau staff were onsite during the installation of the wells. The Bureau has determined that the proposed diversion is just and equitable to other water users in accordance with N.J.A.C. 7:19-2.3(g)2. Also see response to *Response to Comments* 3, 6, 11 and 18.

13. *Comments*- Multiple comments were received that the maximum diversion rate was too large, there was an error in its calculation, and pumping at this rate would increase the zone of influence of the dewatering activity and adversely impact other water users and should not be

considered just and equitable to other users.

**Response-** The maximum diversion rate of 6,830 gpm, the total of the pump capacities identified by the dewatering contractor proposed to be onsite and utilized as needed was not calculated in error. The identified pumps that are proposed to be onsite are 4 pumps at 1,200 gpm and 7 pumps at 290 gpm, totaling 6,830 gpm. The Bureau does not anticipate that the applicant will divert up to their allocation limit on a monthly basis or pump at the maximum diversion rate based on the known parameters and characteristics of the surficial Pensauken Formation and the underlying confining Merchantville–Woodbury Formation, as outlined above in the Hydrogeology section. In addition, dewatering should be limited by phased trench excavation/backfilling, shallow trenching (majority are 10 feet or less), low infiltration rates, and a fluctuating water-table reducing encountered groundwater. Furthermore, the Bureau does not anticipate the zone of influence increasing as the diversion is temporary in nature, the zone of influence is limited by the utilization of sump pumps versus well-points or wells, and the need for all of the pumps onsite to be utilized together is unlikely. Therefore, the Bureau has determined that the proposed diversion is just and equitable to other water users in accordance with N.J.A.C. 7:19-2.3(g)2. Also see response to Response to Comments 3, 6, and 12 above.

14. **Comments-** Multiple comments were received that the proposed diversion should not be considered temporary, will lower the water-table, impact the aquifer, impact Sucker Run and one of its local tributaries.

**Response-** The 10-month proposed diversion meets the criteria of a Temporary Dewatering Permit for Construction outlined in N.J.A.C. 7:19-1.4(c). This permit is required for the construction related temporary diversion including trench dewatering at rates exceeding 100,000 gpd from a single source or a combination of sources for more than 30 days in a consecutive 365-day period for construction purposes when the rate of diversion may exceed natural



replenishment of the water resource (water-table lowering). Construction dewatering is the action of removing groundwater or surface water from a construction site. Normally the temporary dewatering process is done by pumping and is usually done to lower the water-table which may cause problems during excavation for footings or excavation of trenches for utility installations. Construction dewatering is used on most construction sites due to accumulated water in trenches and excavations or in places with inadequate slope or high water-table. During construction projects this water should be removed to provide a safe workplace and to keep projects on schedule. As discussed in the Hydrogeology section, one of the known characteristics of the Pensauken formation is that it readily absorbs water from precipitation to recharge the aquifer so it is not anticipated that the aquifer would show any long-term impacts or be depleted from the temporary proposed diversion. On June 9, 2016, the Bureau forwarded a request to the United States Geological Survey (USGS) for the estimated 7-day, 10-year low flow (7Q10) for Sucker Run at County Route 528 adjacent to the project site, Chesterfield Twp., Burlington County. On June 14, 2016, the USGS responded that the 7Q10 was zero cfs at that location with an associated drainage area of approximately 0.32 square miles. Pursuant to N.J.A.C. 7:19-1.6(e)5 based on a 7-day, 10-year low flow of zero the stream flow for Sucker Run is classified as intermittent, which would be the same for its smaller tributary. Intermittent streams like Sucker Run and its tributaries have flowing water periods during the wet season (winter/spring) but are normally dry during hot summer months. In most cases it would not be recommended for a large-volume user of surface water to utilize an intermittent stream. The Bureau performed a search for regulated surface water intakes on Sucker Run downstream of the project site and none were identified. Therefore, as the diversion is temporary in nature, it is not expected to exceed the long term natural replenishment of groundwater in the area or

adversely affect any stream or tributary in accordance with N.J.A.C. 7:19-2.3(g)3. Also see *Response to Comments* 3, 6 and 12 above.

15. *Comments-* Bordentown Township (BT) owns parcel Lot 3.02 Block 204 in Chesterfield Township that is located in the middle of the project site and stated that Transco has no legal rights to the property and no permission from BT to conduct any type of activity on the lot. In addition, BT purchased the parcel via the NJ Green Acres program and designated its use for recreational activities. BT further commented that pursuant to the Garden State Preservation Trust Act N.J.S.A. 13:18C-1 et seq. the State of New Jersey only allows the parcel to be used for recreation or conservation. BT contends that Transco's proposed activities of potential dewatering and installing utilities through the parcel are not for recreation or conservation so TDP 1322D should be denied. BT also questions the authority of Transco to pursue eminent domain.

*Response-* The project is proposed within an area of Green Acres encumbered land, particularly Tax Block 204, Lot 3.02 of the 2017 Chesterfield Township tax map, which is owned by Bordentown Township. Pursuant to the Federal Energy Regulatory Commission (FERC) issuance of a "Certificate of Public Convenience and Necessity" and the subsequent court order dated February 16, 2017 incorporated herein by reference, the District Court has determined that Transco duly exercised its power of eminent domain for this property. Further, pursuant to the Court's order, Transco has agreed to, among other conditions, compensation pursuant to both the Green Acres diversion and the New Jersey State House Commission formulas. The diversion process shall not delay construction of the permitted project.

16. *Comments-* Multiple comments were received that TDP 1322D as drafted is based on insufficient and incomplete technical information submitted by Transco (AECOM) and at a minimum aquifer testing must be completed prior to issuance of the permit.

**Response-** Pursuant to N.J.A.C. 7:19-2.3 aquifer testing is not required for a Temporary Dewatering Permit. The Bureau has received and reviewed all technical information needed to evaluate this temporary proposed diversion within the application, Technical Report, and various amendments to make an informed decision on TDP 1322D. In addition, it is standard operating procedure during the technical review of an application to seek findings of fact, remedy any inaccuracies, and confirm statements and analyses for technical completeness pursuant to N.J.A.C. 7:19-2.5(b)1.

17. **Comments-** Multiple comments were received that the NJDEP should conduct their own investigation at the project site and not just rely on submitted documents from Transco (AECOM) during their technical review of TDP 1322D. Additional comments were received that soil and water testing should be conducted before and after the project is constructed.

**Response-** The Bureau conducted a thorough evaluation of the submitted information by the applicant and requested additional information when necessary. In addition, the applicant conducted a detailed evaluation to determine the number of local wells surrounding the site, which the Bureau confirmed during an additional detailed well search and site inspection. Also see **Response to Comments** 6, 12, 16 and the Site Inspection discussion above.

18. **Comments-** Multiple comments were received on who would be legally and financially responsible for any local well that is impacted by the proposed diversion. Local residential, irrigation, public supply, and school wells were mentioned.

**Response-** Pursuant to N.J.A.C. 7:19-2 Transco is required to have a CP in place that details and insures that a sufficient temporary supply of potable water is readily available in the event that the diversion adversely impacts the water supply of other users for the duration of the dewatering authorized under this permit. The CP was submitted on September 1, 2016 and approved on November 7, 2016. In addition, pursuant to N.J.A.C. 7:19-2.17(b)2 Transco must

repair or replace, as necessary, any well or surface water supply system which is damaged or goes dry, has reduced capacity or reduced water quality, or is otherwise rendered unusable as a result of the temporary diversion. This requirement is a condition of the permit. The CP confirms that “Should it be determined that there has been an impact on groundwater supply or water quality as a result of project construction, Transco will work with the landowner to ensure a temporary supply of water and, if necessary, Transco will replace a permanent water supply. Mitigation measures will be coordinated with the individual landowner in order to meet the landowner’s specific needs. Regardless of long-term mitigation, short-term mitigation will be accomplished by providing potable water until a new well can be drilled if necessary.”

19. **Comments-** Comments were received that a Water Conservation and Drought Management Plan (WC&DMP) was not submitted to the DEP for review and approval.

**Response-** The Bureau does not require that a WC&DMP be submitted for review and approval for a Temporary Dewatering Permit.

20. **Comments-** Multiple comments were received on the safety risk of the construction and operation of the Transco compressor and metering station.

**Response-** Proper dewatering during construction is essential for the safe construction and operation of the project. Temporary Dewatering Permit 1322D will aid in ensuring that the dewatering activity for the construction of the compressor station is accomplished in a safe manner.

21. **Comments-** Multiple comments were received on the Penn East pipeline project.

**Response-** Penn East pipeline project is reviewed on its own merits and will be required to obtain the necessary permits and approvals solely related to that project.

22. **Comments-** Comments were received on the impacts to the project with regard to weather patterns, precipitation, flooding, and drought.

**Response-** This permit regulates the temporary diversion of groundwater during construction. Therefore, these concerns are outside the purview of the permit.

**23. Comments-** Comments were received on the need for the DEP to purchase hazard insurance to cover costs of remediation and cleanup in case of contamination.

**Response-** See response to **Response** to **Comments** 7 &18.

**24. Comments-** Comments were received on the project not being reviewed and approved by the Delaware River Basin Commission (DRBC).

**Response-** An Administrative Agreement (AA) between the DRBC and the New Jersey Department of Environmental Protection became effective on December 9, 2015 upon DRBC's approval of the amendment to DRBC's Rules of Practice and Procedure to provide for a One Process/One Permit Program. Pursuant to AA - Section III E(4) this temporary dewatering for construction is not required to be reviewed by the DRBC.

**25. Comments-** Multiple comments were received regarding noise and the air pollution that the project would emit during construction and operation. Additional comments were received regarding the noise and wear and tear on local roads from the heavy equipment being brought to and used at the project site.

**Response-** This permit regulates the temporary diversion of groundwater during construction. Therefore, these concerns are outside the purview of the Temporary Dewatering Permit.

**26. Comments-** Multiple comments were received on the radius and size of the blast zone calculated for the project, the project being dangerous, the blow-off and burn-out of methane gas at the project site, evacuation plans would have to be developed, and that local residents may have to leave their homes due to these concerns.

**Response-** This permit regulates the temporary diversion of groundwater during construction.

Therefore, these concerns are outside the purview of the Temporary Dewatering Permit.

27. **Comments-** Multiple comments were received regarding the integrity of the applicant and their ability to construct and operate what most commenters consider unsafe and dangerous projects.

**Response-** This permit regulates the temporary diversion of groundwater during construction.

Therefore, these concerns are outside the purview of the Temporary Dewatering Permit.

28. **Comments-** Comments were received regarding the ability of AECOM to prepare the application and produce a scientifically sound technical report in support of this project.

**Response-** The consultant has submitted all necessary information as outlined in N.J.A.C.

7:19-2.3 to enable the Bureau to issue the Temporary Dewatering Permit.

#### **Staff Analysis**

This is a permit for the temporary diversion of groundwater during construction. The majority of the comments received are outside the scope and purview N.J.A.C. 7:19 and the issuance of the Temporary Dewatering Permit. Based on a review of the relevant comments, application, technical report, application amendments, and the Contingency Plan; no adverse impacts are anticipated as a result of the temporary diversion for the Temporary Dewatering Permit 1322D. Therefore, the Department is recommending approval of the amended application.

#### **Recommendations**

It is recommended that the permit and staff report for 1322D be finalized and issued with the expiration date of March 31, 2018 and subject to specific attached Permit Requirements.

Respectfully Submitted,

*Andy MacDonald*, March 16, 2017

Andy MacDonald, Environmental Specialist 3

*JEM 3/16/17*  
*JAR 3/17/17*