



TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC

RESPONSES TO NJDEP NOTICE OF DENIAL DATED JUNE 5, 2019

NORTHEAST SUPPLY ENHANCEMENT PROJECT

JUNE 2019

This page intentionally left blank.

Proposed Compressor Station 206 – Freshwater Wetlands Individual Permit

NJDEP Comment:

7:7A-10.2 Standard requirements for all individual permits

Construction of and access to the CS 206 site, as proposed, would adversely impact freshwater wetlands, and Transco has failed to demonstrate that no practicable alternatives exist. First, as set forth above, after receiving a sighting report of a Barred Owl adjacent to the proposed CS 206 site and subsequent investigation, including an inspection of the site and contiguous forested area by NJDEP biologists on April 29, 2019, NJDEP accepted as valid the sighting report of a Barred Owl adjacent to the proposed CS 206 site due to the presence of suitable forested habitat conditions on site and the larger contiguous forested area. As a result, the forested wetlands surround the CS 206 site were determined to be suitable habitat for Barred Owls and wetlands surrounding the proposed compressor station were reclassified as exceptional resource value with a 150-foot buffer.

In anticipation that the wetlands would be reclassified from intermediate to exceptional resource value, Division of Land Use Regulation (DLUR) asked Transco on April 11, 2018 to supplement its Freshwater Wetlands Individual Permit application to demonstrate compliance with N.J.A.C. 7:7A-10.2(b) and N.J.A.C. 7:7A-10.4. In response, Transco submitted additional information on May 1, 2019. On May 17, 2019, Transco submitted site plan revisions that depicted the 150-foot wetlands transition area as well as design changes to the proposed stormwater detention basin.

Transco's revised site plans proposed to clear exceptional resource value forested wetland transition areas to construct 1) the compressor station and 2) the proposed stormwater detention basin. Transco also proposed to clear a large area to the west of the compressor station for "staging and laydown", with no permanent structures proposed following construction activities. Shifting the compressor station footprint to the west would avoid impacts to the exceptional resource value transition area. The transition area serves, among other functions, as a sediment and storm water control zone to reduce the impacts of development upon freshwater wetlands and freshwater wetland species, habitat area for breeding, spawning, nesting and wintering of the endangered, commercially and recreationally important wildlife, and a corridor area which facilitates the movement of wildlife to and from freshwater wetlands, streams, and upland. The supplemental information submitted by Transco did not address why the proposed compressor station and stormwater detention basin would not be shifted to the west, with any associated reconfiguration of the proposed staging and laydown areas, to avoid the exceptional resource value transition area. In addition, there was no information submitted to address why the transition area disturbance for the project as proposed could not be reduced.

Transco's Response:

Transco undertook additional detailed engineering to further reduce impacts to the exceptional value forested wetland transition areas for construction of Compressor Station 206 (CS 206) and siting of the stormwater infiltration basin. Specifically, basing calculations on field-verified soil types and modifying the impervious surfaces within CS 206 allowed the footprint

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
DLUR File No. 0000-01-1001.3 FWW180001, FHA180001, CSW180001, WFD180001,
WFD180002 — Northeast Supply Enhancement Project
Responses to NJDEP Notice of Denial dated June 5, 2019

of the infiltration basin to be further reduced, resulting in no impacts to exceptional value wetland transition areas by the infiltration basin footprint. To further reduce impacts to exceptional value wetland transition areas, the limits of disturbance were adjusted along the eastern boundary of the CS 206 site. Impacts to exceptional value wetland transition areas along the eastern boundary of the site were eliminated; therefore, siting CS 206 further west and potential reconfiguration of the staging and laydown area would not result in further reductions of impacts to exceptional value wetland transition areas.

Additionally, adjustments to the limits of disturbance along the southern boundary of the access road resulted in reduction of impacts to the exceptional value wetland transition area associated with wetlands W-T09-002C-2 and W-T09-002C-3. In total, impacts to exceptional value wetland transition areas were reduced by 1.807 acres.

The remaining unavoidable impacts to exceptional value wetlands and exceptional value wetland transition areas are due to the access road and suction and discharge piping tie-in assembly. As described in Transco's June 2018 Freshwater Wetland (FWW) Individual Permit Application, Transco incorporated stormwater controls into the design of the road, reduced the width from approximately 120 feet to less than 100 feet, thereby reducing the impacts along the road to the maximum extent practicable. Prior to submittal of Transco's June 2018 FWW Application, Transco redesigned the suction and discharge piping to reduce impacts to the maximum extent practicable by relocating the piping and reducing the right-of-way width to 80 feet. Additionally, and as detailed in Transco's FWW Application, the tie-in assembly can only be installed into straight segments of pipe; therefore, siting the tie-in assembly upstream (northeast) of where currently proposed is not possible due to the presence of bends in Mainlines A and C. Siting the tie-in assembly downstream (southwest) would increase the length of suction and discharge piping and associated wetland impacts. There is no practicable alternative to the location of the tie-in and suction and discharge piping that would have fewer impacts to regulated features. Given the total of approximately 381 acres of identified forested wetlands within the contiguous area surrounding the proposed Compressor Station 206 site, the clearing of 1.587 acres of suitable foraging habitat is not expected to jeopardize the continued existence of the local population of the barred owl.

Lastly, Transco notes that the revised infiltration basin does not meet the definition of a "dam" in accordance with N.J.A.C 7:20-1.2 as the exterior depth of the embankment from emergency spillway to toe-of-slope is less than five (5) feet.

NJDEP Comment:

7:7A-10.2 Standard requirements for all individual permits

Second, Construction of Transco's preferred alternative including access to the proposed CS 206 site extending from County Route 518 (Georgetown Franklin Turnpike) would result in 2.862 acres of freshwater wetland disturbance. The submitted alternatives analysis identified an existing access road for the adjacent Higgins Farm Superfund Site (Higgins Farm access road) as an alternative point of accessing the CS 206 site. Utilizing the Higgins Farm access road would require the road to be extended 700 feet and widened in some areas resulting in 1.5 acres of disturbance to the Higgins Farm site. However, DLUR determined based upon site

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
DLUR File No. 0000-01-1001.3 FWW180001, FHA180001, CSW180001, WFD180001,
WFD180002 — Northeast Supply Enhancement Project
Responses to NJDEP Notice of Denial dated June 5, 2019

inspection of the Compressor Station 206 site and the use of New Jersey Department of Environmental Protection (NJDEP or Department) geographic information system (GIS) wetland mapping data, the Higgins Farm access road alternative would result in approximately 0.50 acre of wetland impact, compared to 2.862 acres under Transco's preferred alternative. Thus, utilization of the Higgins Farm access road alternative would reduce the wetlands impacts by approximately 2.362 acres.

Transco asserted that this alternative is not practicable because the Higgins Farm is a Superfund site and there is a conservation easement on the property which prohibits non-agricultural development. In support of its position, Transco provided only an incomplete and unrecorded conservation easement between the property owner and Franklin Township. Additionally, Transco provided no information to demonstrate that the U.S. Environmental Protection Agency (USEPA) would prohibit the use and extension of the Higgins Farm access road, or that the Agriculture Retention and Development Act, N.J.S.A. 4:1C-11 et seq., pertains to this site and, if applicable, how the Act would prohibit use of the access road. Transco also cited Franklin Township's opposition to the Northeast Supply Enhancement Project (Project) for rejecting the Higgins Farm access road as a practicable alternative. According to the information in the submitted application, Transco, through its local counsel, sent the Franklin Township attorney a letter dated May 26, 2017, requesting the opportunity to discuss temporarily delaying the adoption of any ordinance or resolution to allow time for negotiations to take place between Transco and the Higgins family. Transco did not provide the DLUR with a copy of its letter to the township. Therefore, Transco has not demonstrated either that it exhausted reasonable efforts to continue communication with the township, or otherwise made reasonable attempts to remove the encumbrance necessary to extend the access road.

As such, DLUR finds that Transco failed to demonstrate that no practicable alternative exists and therefore had not demonstrated compliance with N.J.A.C. 7:7A-10.2(b)1 and 2.

Transco Response:

On August 20, 2007, Lisbeth Higgins, the owner of the property at that time, entered into a Consent Decree between the Higgins and USEPA, which among other provisions, placed certain access and institutional controls on the property to ensure non-interference with, or protection for, the remedial measures performed or to be performed by the USEPA at the property. The Consent Decree also required the Higgins to donate the non-agricultural development rights in the Property to a governmental entity or charitable organization approved by the USEPA.

By Deed of Easement dated October 2, 2017, and recorded at the Somerset County Clerk's office in Deed Book 7021, beginning at page 1997, the Higgins complied with the Consent Decree and conveyed to the Township of Franklin the non-agricultural development rights. A copy of the recorded Deed of Easement is attached as Exhibit A. The Deed of Easement makes it clear that the Agriculture Retention and Development Act (ARDA), N.J.S.A. 4:1C-11 et seq., pertains to the Higgins property. See paragraphs 2 and 23 of the Deed of Easement. In addition, the Deed of Easement expressly provides: "Any development of the Premises for nonagricultural purposes is expressly prohibited."

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
DLUR File No. 0000-01-1001.3 FWW180001, FHA180001, CSW180001, WFD180001,
WFD180002 — Northeast Supply Enhancement Project
Responses to NJDEP Notice of Denial dated June 5, 2019

Both ARDA and the terms of the Deed of Easement prohibit the Higgins and the Township from granting a permanent access road easement across the Higgins' property. By way of background, Transco, in preparing to expand various rights-of-way in various counties in New Jersey in connection with its MarketLink Project (1998-2002), realized that several of the fee owners of such farm properties had sold their development rights to State entities, and that a number of other fee owners were in the process of applying for, or were considering applying for, acceptance into farmland preservation programs in which they would deed their non-agricultural development rights away. Transco contacted Gregory Romano, Executive Director of the State Agriculture Development Committee (SADC), to establish whether a fee owner, having sold his or her non-agricultural development rights, could still convey a right-of-way for an underground natural gas pipeline, assuming that the pipeline would not prevent the continuing cultivation of the property. By Opinion 98-0162, dated December 30, 1998, the Attorney General, by Marci D. Green, Deputy Attorney General, concluded that such owners could no longer grant easements for non-agricultural purposes. A copy of Opinion 98-0162 is attached as Exhibit B.

Transco attempted to acquire a permanent access easement across the Higgins property prior to the execution of the Deed of Easement by the Township and the Higgins. It did so because it was aware that it would no longer be possible to voluntarily acquire the access easement once the non-agricultural development rights were conveyed to the Township. Specifically, on May 10, 2017, Transco, through its attorney, spoke with the Higgins' attorney to inform him of Transco's interest in purchasing a permanent access road easement. However, the Higgins' attorney indicated that the Higgins could not consider granting an access easement unless Transco first obtained permission from Franklin Township and from the USEPA. Transco also, through its local counsel, sent the Franklin Township attorney a letter, dated May 26, 2017, requesting the opportunity to discuss the proposed access road with the Township. A copy of the letter is attached as Exhibit C. In the letter, Transco also asked the Township to consider temporarily delaying the adoption of any ordinance or resolution in order to allow time for negotiations to take place with Transco and the Higgins. The Township never responded to the letter.

In order to demonstrate to the Department that it has exhausted reasonable efforts to communicate with the Township, Transco, through its counsel, sent a letter dated June 6, 2019, to Franklin Township attorney Louis Rainone requesting confirmation of the Township's position regarding Transco's use of the road as a permanent means to access the compressor station. A copy of the letter is attached as Exhibit D. Pursuant to the Deed of Easement, the Township maintains the right to apply to the SADC to have the easement enrolled in the State of New Jersey Agriculture Retention and Development Program administered by the SADC. Transco is in the process of confirming whether the Township has already sought to enroll the easement in the State Program, or if not, whether there is any indication when it will do so. If the Township, the Higgins, and the USEPA were amenable to Transco acquiring a permanent access road easement and agreeing upon the amount of compensation to be paid, Transco could file a "friendly" condemnation action in federal court. While the State may not have an interest in the property at this time, if the easement were enrolled in the State Program any time prior to the filing of the condemnation action, the State would have to consent to participating in the

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
DLUR File No. 0000-01-1001.3 FWW180001, FHA180001, CSW180001, WFD180001,
WFD180002 — Northeast Supply Enhancement Project
Responses to NJDEP Notice of Denial dated June 5, 2019

action in federal court. Also, given the Township's opposition during the FERC process to the siting of the compressor station at the now-certificated location, it is very unlikely that the Township would ultimately allow Transco to use the Higgins Farm access road to reach the compressor station. A copy of the Township's comments on the FERC docket are attached hereto as Exhibit E.

Given the restrictions set forth in the Deed of Easement, which adopts ARDA, neither the Higgins nor the Township of Franklin can voluntarily convey a permanent access easement to Transco. Since the State statutes would not provide any procedures by which a federally regulated pipeline may obtain easement rights across "preserved" farmland, Transco can only acquire a permanent access road across the Higgins property by condemnation naming the Higgins, Franklin Township, the USEPA and, if the easement is placed into the State Program, the State of New Jersey (Department of Agriculture, State Agriculture Development Committee). In that scenario, there would be no guarantee that Transco would be successful. For example, the State of New Jersey (Department of Agriculture, SADC), in defense of a condemnation action filed by PennEast Pipeline, has taken the position that the pipeline company cannot acquire the rights across properties in which the State of New Jersey holds any interest (including preserved farms and conservation restrictions held by the NJDEP), by condemnation. While the New Jersey District Court has held, in an unpublished decision, that an interstate pipeline company may condemn in federal court, that decision was appealed by the State of New Jersey to the Third Circuit Court of Appeals. Also, there is a risk that the USEPA could assert federal sovereign immunity, which would effectively preclude Transco from condemning an easement across the Higgins property.

In addition, the USEPA has several concerns about the possible use of the Higgins Farm access road as a permanent means of access to the compressor station. By letter dated March 8, 2017, the USEPA informed Transco of its concerns. A copy of the letter is attached hereto as Exhibit F. Among other things, the USEPA has stated that "Transco must take all reasonable measures to honor the agricultural deed of easement." However, by condemning the access road, Transco would arguably not be honoring the agricultural easement. Also, the USEPA has expressed concerns about the trenching and excavation activities that would be necessary if the Higgins Farm access road is utilized by Transco to access the compressor station. However, trenching and excavation activities could not be avoided. By letter dated June 11, 2018, Transco, through its attorney, provided information about the trenching and excavation activities that would be required to construct the road and to install any utility lines needed to operate the compressor station. A copy of the letter is attached as Exhibit G.

Furthermore, it should be noted that in the Final Environmental Impact Statement (FEIS), FERC concluded the following about the USEPA road:

Although extending the existing EPA road would reduce impacts to forest and wetland resources, the construction associated with the road and buried utilities could encounter contamination on the Superfund site, which was raised as a concern by commenters. In addition, the access road would be a permanent feature, resulting in daily traffic across the Higgins' pasture, whereas the current level

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
DLUR File No. 0000-01-1001.3 FWW180001, FHA180001, CSW180001, WFD180001,
WFD180002 — Northeast Supply Enhancement Project
Responses to NJDEP Notice of Denial dated June 5, 2019

of traffic on the EPA access road is episodic. We also note that members of the Higgins family have publicly opposed allowing Transco access across their property. It is generally the Commission's policy to avoid placing permanent aboveground facilities on an unwilling landowner's property if a reasonable alternative exists. While this road is not an aboveground facility, it is a permanent feature that would result in a significant impact on the landowner that, if used, would likely conflict with the existing conservation easement because fill materials are likely necessary to improve the road. For these reasons, we conclude that extension and modification of the existing EPA access road would not present a significant environmental advantage over Transco's proposed access road and do not recommend the alternative. [FEIS at 3-39]

Additionally, the FERC Certificate of Public Convenience and Necessity (Certificate) authorizes Transco to construct, operate, and maintain the Project, as proposed. Relocation of the access road to the Higgins Farm access road would require FERC to amend the Certificate. FERC approval would be required before Transco could proceed with a condemnation action.

Without Franklin Township's cooperation and, if applicable, the State's consent to the condemnation action in federal court, the Higgins Farm access road is not a practicable alternative.

NJDEP Comment:

7:7A-10.3 Additional requirements for a non-water dependent activity in a wetland or special aquatic site

As discussed above, it has not been demonstrated that there are no practicable alternatives to the access road and that there is not alternative design for CS 206 and the proposed detention basin. Therefore, compliance with 7:7A-10.2[sic](c) 1 through 4 has not been met because it has not been demonstrated that the project could not have been reconfigured, reduced in scope or relocated to avoid exceptional freshwater wetlands and their associated transition areas. Additionally, to the extent Transco has rejected alternatives due to alleged constraints, as discussed above, Transco has failed to show it made reasonable attempts to remove or accommodate such constraints.

Transco Response:

The FWPA regulations provide that "[t]here shall be a rebuttable presumption that there is a practicable alternative to a non-water dependent activity in a freshwater wetland or in a special aquatic site, which alternative does not involve a freshwater wetland or special aquatic site, and that such an alternative would have less of an impact on the aquatic ecosystem." [N.J.A.C. 7:7A-10.3(b)]. In order to rebut that presumption, an applicant must demonstrate that it meets all of the requirements of N.J.A.C. 7:7A-10.3(c)1-5.

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
DLUR File No. 0000-01-1001.3 FWW180001, FHA180001, CSW180001, WFD180001,
WFD180002 — Northeast Supply Enhancement Project
Responses to NJDEP Notice of Denial dated June 5, 2019

The Department stated in its Notice of Denial that Transco failed to show compliance with N.J.A.C. 7:7A-10.3(c)1-4 as it pertains to the access road. As set forth in detail below, Transco submits that it has established compliance with these regulations.

1. *That the basic project purpose cannot reasonably be accomplished using one or more other sites in the general region that would avoid or reduce the adverse impact on an aquatic ecosystem;*

As set forth in Transco's June 2018 FWW Application, Transco performed a comprehensive siting analysis for CS 206. This analysis took into consideration parcel availability, parcel configuration and presence of regulated freshwater wetlands, transition areas, and state open waters. After applying these criteria, Transco was able to narrow its search to five potential sites. Transco then applied additional considerations to these sites to further refine its analysis. Specifically, Transco analyzed impacts associated with operation and construction workspaces, access road requirements, suction and discharge piping requirements, workspace needed for tie-in to Transco's Mainlines, and whether a pig launcher and receiver would be needed at each site. As set forth in Transco's June 2018 FWW Application, there are no other sites in the region that would both satisfy the basic Project purpose and avoid or reduce the adverse impact on the aquatic ecosystem.

As it pertains to the access road, Transco analyzed the Higgins Farm access road as an alternate means of accessing CS 206. However, Transco concluded that the basic Project purpose could not reasonably be accomplished due the significant legal and environmental constraints (described in the preceding response) associated with the Higgins Farm access road.

2. *That the basic project purpose cannot reasonably be accomplished if there is a reduction in the size, scope, configuration, or density of the project as proposed;*

Transco has minimized the impacts associated with the access road to the greatest extent practicable, and the Project purpose cannot be accomplished through further reductions in the size, scope, configuration, or density of the Project. To further reduce impacts to exceptional value wetland transition areas, the limits of disturbance were adjusted along the eastern boundary of the CS 206 site. Impacts to exceptional value wetland transition areas along the eastern boundary of the site were eliminated; therefore, siting CS 206 further west and potential reconfiguration of the staging and laydown area would not result in further impact reductions on exceptional value wetland transition areas.

3. *That the basic project purpose cannot reasonably be accomplished by an alternative design that would avoid or reduce the adverse impact on an aquatic ecosystem;*

Transco has designed the access road to avoid and minimize impacts to freshwater wetlands, transition areas, and riparian zones to the greatest extent practicable. The basic Project purpose cannot reasonably be accomplished through an alternative design.

As noted above, adjustments to the limits of disturbance along the southern boundary of the access road resulted in impact reduction on the exceptional value wetland transition area associated with wetlands W-T09-002C-2 and W-T09-002C-3. In total, impacts to exceptional value wetland transition areas were reduced by 1.807 acres.

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
DLUR File No. 0000-01-1001.3 FWW180001, FHA180001, CSW180001, WFD180001,
WFD180002 — Northeast Supply Enhancement Project
Responses to NJDEP Notice of Denial dated June 5, 2019

Furthermore, as it relates to other areas of the CS 206 site, Transco undertook additional detailed engineering to further reduce the impacts to the exceptional value forested wetland transition areas for construction of Compressor Station 206 (CS 206) and siting of the stormwater infiltration basin. Specifically, basing calculations on field-verified soil types and modifying the impervious surfaces within CS 206 allowed the footprint of infiltration basin to be further reduced, resulting in no impacts to exceptional value wetland transition areas by the infiltration basin footprint.

The remaining unavoidable impacts to exceptional value wetlands and exceptional value wetland transition areas are due to the access road and suction and discharge piping tie-in assembly. As described in Transco's June 2018 FWW Application, Transco initially designed the road so that underground water and electric utilities would be located adjacent to the road within a utility easement. However, through additional engineering, Transco redesigned the road to locate these utilities beneath the road, thereby reducing impacts to regulated features. Additionally, Transco incorporated stormwater controls into the design of the road and reduced the width from approximately 120 feet to less than 100 feet, thereby reducing the impacts along the road by 0.92 acre. Prior to submittal of Transco's June 2018 FWW Application, Transco redesigned the suction and discharge piping to reduce impacts to the maximum extent practicable by relocating the piping and reducing the right-of-way width to 80 feet, reducing impacts by 0.22 acre. Additionally, and as detailed in Transco's FWW Application, the tie-in assembly can only be installed into straight segments of pipe; therefore, siting the tie-in assembly upstream (northeast) of where currently proposed is not possible due to the presence of bends in Mainlines A and C. Siting the tie-in assembly downstream (southwest) would increase the length of suction and discharge piping and associated wetland impacts. There is no alternate design to the suction and discharge piping area that would have fewer impacts to regulated features.

4. *That in cases where the applicant has rejected alternatives to the project as proposed due to constraints such as inadequate zoning, infrastructure, or parcel size, the applicant has made reasonable attempts to remove or accommodate such constraints; and*

Transco rejected the Higgins Farm access road due to the significant legal and environmental constraints associated with the road. Despite Transco's best efforts, it has been unable to remove these constraints.

As noted above, the Higgins property is subject to a Deed of Easement in which the non-agricultural development rights were conveyed to the Township of Franklin. Transco attempted to acquire an access road easement from the Higgins prior to the execution of the Deed of Easement, but the Higgins' attorney indicated that the Higgins could not consider granting an access easement unless Transco first obtained permission from Franklin Township and from the USEPA. Transco also asked the Township to consider temporarily delaying the adoption of any ordinance or resolution in order to allow time for negotiations to take place with Transco and the Higgins. The Township never responded to the letter. The Deed of Easement was ultimately executed by the Higgins on October 2, 2017, and Township accepted and approved the Deed of Easement on October 11, 2017.

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
DLUR File No. 0000-01-1001.3 FWW180001, FHA180001, CSW180001, WFD180001,
WFD180002 — Northeast Supply Enhancement Project
Responses to NJDEP Notice of Denial dated June 5, 2019

Since both ARDA and the terms of the Deed of Easement prohibit the Higgins and the Township from granting a permanent access road easement across the Higgins' property, the only way that Transco could obtain the rights necessary to construct and operate the road would be to file a condemnation action naming the Higgins, the Township, the USEPA and, if the easement is placed into the State Program, the State of New Jersey (Department of Agriculture, SADC). If the easement is enrolled in the State Program, there is no guarantee that Transco could obtain the rights in the property through condemnation as the State of New Jersey's current legal position is that an interstate natural gas pipeline company cannot condemn property in which the State holds an interest without the State's consent.

Furthermore, Transco cannot condemn property in which the United States (or one of its agencies) has an interest unless Congress has waived its sovereign immunity. United States v. Mitchell, 463 U.S. 206, 212 (1983). If Transco were required to name the USEPA in a condemnation action, the suit would likely be dismissed since the United States has specifically not consented to such suits. See 28 U.S.C.A § 2410(a). While the USEPA claims it does not have a property interest, the Consent Decree restricts the use of the Property and gives the USEPA the "sole and unreviewable" discretion to control the Property in many respects. The fact that the USEPA essentially controls the use of the property and restricts any activities that would interfere with its remediation efforts renders the USEPA an interested party under Federal Rule of Civil Procedure 71.1.

Accordingly, there are significant legal constraints that could prevent Transco from acquiring the necessary rights to enlarge and construct an access road on the Higgins' property. Transco attempted to acquire a permanent access easement across the Higgins property prior to the execution of the Deed of Easement by the Township and the Higgins. It did so because it was aware that it would no longer be possible to voluntarily acquire the access easement once the non-agricultural development rights were conveyed to the Township. However, Transco was unsuccessful. In order to demonstrate to the Department that it has exhausted reasonable efforts to communicate with the Township, Transco, through its counsel, sent a letter dated June 6, 2019 to Franklin Township attorney Louis Rainone requesting confirmation of the Township's position regarding Transco's use of the road as a permanent means to access the compressor station.

In addition to these legal constraints, there are also significant environmental constraints associated with the Higgins Farm access road. As the Department is aware, the Higgins property is a Superfund site. The USEPA has expressed concerns regarding interference with the remedy due to the extent of trenching and excavation activities, as well as interference with the intent of the Deed of Easement. However, Transco would still need to obtain utility service to CS 206, and in an October 6, 2017 meeting with Public Service Enterprise Group (PSE&G), PSE&G stated that it would not install electrical service along the road since it would require significant excavation and would risk encountering contamination. PSE&G stated that it would need to use the location of the preferred access road to run the electrical service to CS 206. Accordingly, Transco would be unable to completely avoid impacts to these regulated features. In order to install electrical service at CS 206, there would be approximately 1.790 acres of impacts to wetlands. This would be in addition to the 0.5 acre of wetland impact estimated by the Department in its Notice of Denial Letter; therefore, the total wetlands impacts associated

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
DLUR File No. 0000-01-1001.3 FWW180001, FHA180001, CSW180001, WFD180001,
WFD180002 — Northeast Supply Enhancement Project
Responses to NJDEP Notice of Denial dated June 5, 2019

with the Higgins Farm access road would be 2.29 acres, which is only 0.569 acres more when compared to the preferred access road.

It should be noted that, in an effort to provide the USEPA with information on potential impacts to the Higgins property associated with the installation of electric utility service, Transco notified the USEPA in its June 11, 2018 letter that, assuming PSE&G would be willing to install such service, it would do so through overhead transmission lines, which would require the use of an auger to drill down several feet in order to set the new poles. However, given the level of disturbance associated with the installation of the poles, this activity would be expressly prohibited by the Deed of Easement.

Furthermore, the extension and widening of the Higgins Farm access road to provide access to CS 206 would be contrary to the terms of the Deed of Easement. As set forth in the Attorney General's Opinion 98-0162, dated December 30, 1998, easements and workspace associated with pipeline facilities would be for non-agricultural purposes and owners are prohibited under the Deed of Easement from granting such easements. In addition, the Deed of Easement expressly prohibits the removal of sand, gravel, loam rock or other minerals unless for agricultural purposes. Transco's widening and extension of the Higgins Farm access road would necessarily require the removal of these materials in contravention of the Deed of Easement. Moreover, assuming Transco could condemn an easement for the access road, Transco would effectively extinguish the restriction in the Deed of Easement, thereby directly interfering with the Deed of Easement. Accordingly, Transco's use of the Higgins Farm access road would be contrary to the Deed of Easement and the USEPA's requirements.

Transco has made reasonable attempts to remove or accommodate the constraints associated with the Higgins Farm access road but has been unsuccessful.

5. *If any portion of the proposed activity will take place in an exceptional resource value wetland or in trout production waters, that the requirements of N.J.A.C. 7:7A-10.4 are met.*

Since the proposed access road would be constructed through exceptional resource value wetlands, Transco would be required to show compliance with N.J.A.C. 7:7A-10.4. As set forth in more detail below, Transco has demonstrated that its proposed access road and Project satisfy a compelling public need and that denial of the permit would impose an extraordinary hardship on Transco due to the lack of alternate access to the CS 206 site.

NJDEP Comment:

7:7A-10.4 Additional requirements for a non-water dependent activity in exceptional resource value wetlands or trout production waters

To address the compelling public need requirement at 7:7A-10.4(a)1, Transco submitted supplemental information on May 1, 2019 to address the project purpose, the January 25, 2019 FERC issuance of its FEIS, the anticipated May 2019 issuance of the Certificate (which was issued on May 3, 2019), and National Grid's comment on the FERC Docket confirming its support for the project. According to Transco, this information demonstrates a public need for

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
DLUR File No. 0000-01-1001.3 FWW180001, FHA180001, CSW180001, WFD180001,
WFD180002 — Northeast Supply Enhancement Project
Responses to NJDEP Notice of Denial dated June 5, 2019

an increase in the capacity of the existing Northeast Supply line by 400,000 Dth/d of additional incremental transportation capacity to National Grid's existing service territory.

However, to satisfy N.J.A.C. 7:7A-10.4, Transco must demonstrate a compelling public need as defined by the applicable regulations or, alternatively, an extraordinary hardship. Transco has done neither. Specifically, Transco has not demonstrated, based on facts specific to its application, that the proposed regulated activity will serve an essential health or safety need of the municipality in which the activities are proposed, that the proposed use is required to serve existing needs of the residents of the State, and that there is no other means available to meet the established public need.

Furthermore, while Transco asserts that the vast majority of the wetland impacts that will occur in connection with CS 206 are necessary for the NESE Project as a whole and therefore a denial of the Freshwater Wetlands Individual Permit would constitute an extraordinary hardship brought about by circumstances peculiar to the subject property, Transco has not, as discussed above, demonstrated that there are no practicable alternatives that would avoid the purported hardship.

Therefore, Transco has not demonstrated compliance with N.J.A.C. 7:7A-10.4.

Transco Response:

Transco has established that its Project satisfies a "compelling public need" as that term has been interpreted by the Department on past interstate natural gas pipeline projects and is defined under the FWPA regulations. Transco has also established that denial of the permit would impose an extraordinary hardship on Transco.

Compelling Public Need

As required by the FWPA regulations, an applicant that proposes a non-water dependent activity within exceptional resource value wetlands must establish that there is either:

- (1) a compelling public need for the proposed activity greater than the need to protect the freshwater wetland or trout production water, and that the need cannot be met by essentially similar projects in the region which are under construction or expansion, or which have received the necessary governmental permits and approvals; or
- (2) [t]hat denial of the permit would impose an extraordinary hardship on the applicant brought about by circumstances peculiar to the subject property. [N.J.A.C. 7:7A-10.4(a).]

Under the FWPA regulations, "compelling public need" means:

that based on specific facts, the proposed regulated activity will serve an essential health or safety need of the municipality in which the proposed regulated activity is located, that the public health and safety benefit from the proposed use and that the proposed use is required to serve existing needs of the residents of the State, and that

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
DLUR File No. 0000-01-1001.3 FWW180001, FHA180001, CSW180001, WFD180001,
WFD180002 — Northeast Supply Enhancement Project
Responses to NJDEP Notice of Denial dated June 5, 2019

there is no other means available to meet the established public need.
[N.J.A.C. 7:7A-1.3]

The Department has historically relied on FERC's issuance of a Certificate of Public Convenience and Necessity (Certificate) to satisfy the requirement set forth in N.J.A.C. 7:7A-10.4, that there be a compelling public need for the regulated activity. For instance, on Transco's Leidy Southeast Expansion Project, the Department specifically relied on the FERC Certificate, stating:

FERC has issued an Order dated December 18, 2014 which determined that 'the project is required by the public convenience and necessity,' therefore, there is need for the project. The Department concurs that there is a compelling public need for the project that cannot be met with similar projects in the region. [April 6, 2015 Staff Summary Report, DLUR File No. 0000-13-0012.1, attached hereto as Exhibit H.]

This determination was challenged at the U.S Court of Appeals for the Third Circuit and was ultimately upheld. See Del. Riverkeeper Network v. Sec'y Pa. Dept. of Env'tl. Prot., 833 F.3d 360, 380 (3d Cir 2016)(holding that NJDEP appropriately determined that the compelling public need for the project outweighed the impact on exceptional resource value wetlands).

On May 3, 2019, FERC issued a Certificate to Transco finding that "the public convenience and necessity requires approval of the project." See FERC Certificate, ¶18, attached hereto as Exhibit I. Furthermore, FERC analyzed in the FEIS whether other natural gas transmission systems in the area could meet the purpose and need of the Project and concluded that the expansion of other interstate natural gas transmission systems in the region would not be a viable alternative. See FEIS at 3-5. Accordingly, Transco's Project would satisfy a compelling public need under the Department's interpretation of its regulations.

Moreover, Transco can establish that its Project satisfies a "compelling public need" as that term is defined under the FWPA regulations. It should be noted that there are no impacts to wetlands (exceptional or otherwise) or transition areas that would result from the compressor station itself. The only impacts to exceptional resource value wetlands and/or their associated transition areas are a result of the construction and operation of the proposed access road and suction and discharge piping (identified within the area of "Utility Crossing D" in Transco's permit plans).

Without the access road, Transco cannot access the property on which CS 206 would be built. The road is necessary for Transco to safely operate and maintain its pipeline and facilities in accordance US Department of Transportation safety regulations. The access road will serve an essential safety need of the municipality in which the proposed regulated activity is located, and the public health and safety would benefit from Transco's ability to access its facilities to safely construct, operate and maintain them in accordance with federal law.

Similarly, for CS 206 to function, it must tie into Transco's existing pipelines. As detailed in Transco's FWW Application, the tie-in assembly can only be installed into straight segments

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
DLUR File No. 0000-01-1001.3 FWW180001, FHA180001, CSW180001, WFD180001,
WFD180002 — Northeast Supply Enhancement Project
Responses to NJDEP Notice of Denial dated June 5, 2019

of pipe; therefore, siting the tie-in assembly upstream (northeast) of where currently proposed is not possible due to the presence of bends in Mainlines A and C. Siting the tie-in assembly downstream (southwest) would increase the length of suction and discharge piping and associated wetland impacts. There is no practicable alternative to the location of the tie-in and suction and discharge piping that would have fewer impacts to regulated features.

These components are essential to the Project, its safe operation, and the health and safety of the neighboring community.

In addition, the Project would have significant health and safety benefits to the surrounding area, as discussed by FERC in the FEIS. Specifically, the project will displace the use of No. 2 fuel oil in New York City and Long Island, significantly reducing ozone precursors of nitrogen oxides (NO_x), sulfur dioxide (SO₂), and particulate matter (PM). Reducing emissions of these compounds will improve air quality within the Northern New Jersey-New York-Connecticut air quality control region. These emissions reductions and associated public health benefits will be shared across this airshed. In addition, emissions reduction projects are planned to be implemented in Northern New Jersey to reduce public transit and drayage truck emissions. These permanent emissions reduction projects will reduce diesel-related emissions in the immediate region of the project, providing a local air quality and public health benefit. Currently no other Project is proposed that could meet the purpose and need of the Project and enable to conversion of National Grid customers from heavy heating oil to natural gas.

Lastly, to the extent the Department suggests that its regulations would only allow for activities that have a benefit to the municipality in which they are located, thereby preventing projects like Transco's that have regional or even national benefits, its regulations are preempted and would constitute an undue burden on interstate commerce. FERC has exclusive jurisdiction over the determination of whether there is a need for the Project. See Schneidewind v. ANR Pipeline Co., 485 U.S. 293, 300-301 (1988) (holding that where state regulation affects the ability of the FERC to regulate interstate natural gas, the state regulation will be preempted). See also Islander East Pipeline v. Conn. Dept. of Env'tl. Prot., 467 F.3d 295, 305 (2d Cir.2006) ("Congress wholly preempted and completely federalized the area of natural gas regulation by enacting the NGA"); and National Fuel Gas Supply Corp. v. Public Service Com'n of State of N.Y., 894 F.2d 571, 579 (1990)(holding that issues sought to be regulated by the New York Public Service Commission, including the basis for the need for the proposed facilities, were "directly considered by the FERC [and] [u]nder Schneidewind, such direct consideration is more than enough to preempt state regulation").

The Department's authority to review this portion of Transco's Project derives from Sections 401 and 404 of the Clean Water Act. While a State's environmental review under the Clean Water Act is "carved out" from the preemptive effect of the Natural Gas Act, regulations that exceed that authority would be preempted. See Del. Riverkeeper Network v. Sec'y Pa. Dept. of Env'tl. Prot., 833 F.3d at 368, citing 15 U.S.C. §717b(d).

For one, federal regulations governing a State's assumption of authority under Section 404 of the Clean Water Act provide that, while a State program may have a greater scope than the federal program, "the additional coverage is not part of the Federally approved program". [40 C.F.R. § 233.1(c).] The federal 404 program does not have a similar requirement that a project

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
DLUR File No. 0000-01-1001.3 FWW180001, FHA180001, CSW180001, WFD180001,
WFD180002 — Northeast Supply Enhancement Project
Responses to NJDEP Notice of Denial dated June 5, 2019

or regulated activity serve a compelling public need. While the Army Corps of Engineers must perform a public interest review that is similar to the one performed by the Department, compare 33 C.F.R. § 320.4(a) with N.J.A.C. 7:7A-10.2(b)12, nowhere is the Corps required to find a benefit to the municipality in which a project is located in order to approve a permit. Similarly, regulations pertaining to transition areas are not part of the federal program.

Furthermore, whether a project or regulated activity benefits the municipality is irrelevant to whether the project or activity complies with New Jersey's water quality standards. The Department's review of whether the Project serves the municipality in which it is located therefore exceeds the scope of its authority under Section 401 of the Clean Water Act.

Accordingly, the Department's regulations are preempted to the extent they exceed its authority under the Clean Water Act.

Extraordinary Hardship

In addition to satisfying a compelling public need, the denial of the permit imposes an extraordinary hardship on Transco. As noted above, the only impacts to wetlands associated with proposed CS 206 are the proposed access road and suction and discharge piping. These two components are necessary for the construction, operation, and maintenance of CS 206 and, therefore, the Project as a whole.

Without the access road, Transco cannot access the property on which CS 206 would be built. And, as detailed in Transco's FWW Application and subsequent submittals to NJDEP, there is no practicable alternative to the proposed access road that would have fewer impacts to regulated features.

Moreover, for CS 206 to function, it must tie into Transco's existing pipelines. As detailed in Transco's FWW Application, the tie-in assembly can only be installed into straight segments of pipe; therefore, siting the tie-in assembly upstream (northeast) of where currently proposed is not possible due to the presence of bends in Mainlines A and C. Siting the tie-in assembly downstream (southwest) would increase the length of suction and discharge piping and associated wetland impacts. There is no practicable alternative to the location of the tie-in and suction and discharge piping that would have fewer impacts to regulated features.

Accordingly, the location of Transco's existing pipelines on the CS 206 site and the landlocked nature of the property, coupled with the fact there are no practicable alternatives that would have lesser environmental impacts, necessarily require the limited impacts to these wetlands and transition areas. Transco has established that it has avoided and minimized impacts to regulated areas, including wetlands and transition areas, to the greatest extent practicable. Transco is suffering an extraordinary hardship as a result of the Department's denial of the permit as it will be unable to construct and operate CS 206 and meet the need of its customer for the natural gas, which FERC has determined to be in the public convenience and necessity.

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
DLUR File No. 0000-01-1001.3 FWW180001, FHA180001, CSW180001, WFD180001,
WFD180002 — Northeast Supply Enhancement Project
Responses to NJDEP Notice of Denial dated June 5, 2019

Proposed Compressor Station 206 – Flood Hazard Area Control Act Permit

NJDEP Comment:

7:13-11.2 Requirements for a Regulated Activity in a Riparian Zone

Pursuant to N.J.A.C 7:13-11.2(b)2ii, Transco has not adequately demonstrated that the proposed access road to the CS 206 site from the Franklin Georgetown Turnpike that crosses Block 5.02, Lots 1.02, 9, 10, 11.02, 12, 16 and 17 could not be accomplished without clearing, cutting or removing riparian zone vegetation of three unnamed tributaries to Carters Brook. Transco has not fully explored utilizing the existing Higgins Farm access road, which would eliminate all disturbances to riparian zone vegetation.

Transco Response:

See discussion regarding the Higgins Farm access road, above.

Raritan Bay Loop – Waterfront Development Individual Permit and Water Quality Certificate

NJDEP Comment:

N.J.A.C. 7:7-12.7 New Dredging

Due to the suspected contamination of sediments along the proposed submerged pipeline route for the Raritan Loop, DLUR required Transco to provide pre-dredging chemical and physical analysis of the dredged material, as well as additional testing to determine potential impacts to surface water quality and benthic communities. The testing results were also necessary for NJDEP to determine if the proposed dredged material placement method and disposal site are acceptable. NJDEP's rules at N.J.A.C. 7:7-12.7(2) require compliance with Appendix G, regarding the management and regulation of dredging activities in state tidal waters, including required application information. As stated in Appendix G, a water quality certificate is required for any discharge of dredged material into navigable waters of the United States associated with the dredging operation.

Transco provided initial in-situ sediment sampling for bulk sediment chemical analysis, sediment grain size and texture. However, the testing was insufficient for DLUR to determine if the proposed upland placement facility was acceptable or if surface water quality would be impacted due to resuspension of contaminants at the proposed dredging site.

NJDEP worked with Transco to create a sediment sampling and analysis plan (SSAP) for upland placement of material. Transco conducted sediment sampling in fall/winter of 2018. Bulk sediment chemistry on raw dredged material sample results were screened against the *Ecological Saline Water Sediment Effects Range Medium (ER-M)* criteria. ER-Ms are measures of toxicity in marine sediment that are used in assessing toxicity hazards for trace metals and organic contaminants. Parameters that exceed the ER-M value indicate there is a greater than 50% incidence of adverse effects to benthic communities (*Guidance for Sediment Quality Evaluations – NJDEP – November 1998*). Transco's sampling results showed exceedances of the ER-M value for bis(2-ethylhexyl)phthalate, phenanthrene, arsenic, manganese, mercury, polychlorinated biphenyls (PCBs) and 4,4'-DDE (pesticides) at certain sample points as follows:

Bis(2-Ethylhexyl)phthalate (Semi-Volatile Organic Compounds):

ER-M Screening Criteria	Sample ID	Result
2.64651	VC-214	4.98

Phenanthrene (Semi-Volatile Organic Compounds):

ER-M Screening Criteria	Sample ID	Result
1.5	VC-214	2.21

Arsenic (Inorganic Compounds):

ER-M Screening Criteria	Sample ID	Result
70 (Non-res 19)	VC-208	63.8
70	VC-214	70.1

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
 DLUR File No. 0000-01-1001.3 FWW180001, FHA180001, CSW180001, WFD180001,
 WFD180002 — Northeast Supply Enhancement Project
 Responses to NJDEP Notice of Denial dated June 5, 2019

Manganese (Inorganic Compounds):

ER-M Screening Criteria	Sample ID	Result
260	VC-304	366
206	DEP-3	379
260	DEP-4	353
260	DEP-5	371

Mercury (Inorganic Compounds):

ER-M Screening Criteria	Sample ID	Result
0.71	VC-208	1.56
0.71	VC-214	2.17

PCBs (Arcolors Sum):

ER-M Screening Criteria	Sample ID	Result
0.18	VC-208	0.821
0.18	VC-214	0.869

4,4'-DDE (Pesticides):

ER-M Screening Criteria	Sample ID	Result
0.027	VC-208	0.0289
0.027	VC-214	0.0366

These results indicate that the proposed dredging could adversely impact surface water quality. Specifically, Transco's sampling results indicate the proposed dredging for the Raritan Bay Loop may exceed applicable surface water criteria for toxics substances at N.J.A.C. 7:9B (SWQA). Based on Transco's submission, the relevant contaminants are bis(2-ethylhexyl)phthalate, phenanthrene, arsenic, manganese, mercury, PCBs and 4,4'-DDE (pesticides). In support of its application, Transco provided a report entitled "NESE Hydrodynamic & Sediment Transport Modeling" dated August 2017 that analyzed various methods of dredging and potential total suspended solids (TSS) turbidity and sediment plumes. An analysis was provided for open bucket with barge overflow, jet sledding, jet trenching, and HDD dredging techniques. DLUR asked Transco to provide a more detailed analysis to compare different methods of bucket dredging and jet equipment. Additionally, DLUR required a comparison of different methods selected for pipe installation. Transco provided information on the feasibility of the HDD method, mechanical dredging, and jet trenching and provided a modeling analysis of cumulative TSS, distance of TSS plume, production rates, maximum distance of deposition and confirmed it would implement best management practices to control TSS in a manner that complies with surface water quality standards.

However, the chemical analysis for sample locations VC-208, VC-214, VC304, DEP-3, DEP-4, and DEP-5 resulted in exceedances to the *Ecological Saline Water Sediment ER-M criteria* which indicates that there would be potential to impact water quality. Transco did not provide modeling to show that turbidity concentration and water quality parameters for the identified chemicals of concern downstream and upstream of the dredging site will meet the SWQS.

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
DLUR File No. 0000-01-1001.3 FWW180001, FHA180001, CSW180001, WFD180001,
WFD180002 — Northeast Supply Enhancement Project
Responses to NJDEP Notice of Denial dated June 5, 2019

Accordingly, the available information indicates that the proposed dredging could adversely impact surface water quality and that Transco has not sufficiently demonstrated how it would avoid adverse impacts to surface water quality. Any resubmittal of NESE Project application must include a modeling analysis for the above referenced parameters that demonstrates compliance with SWQS, through the implementation of best management practices identified in Appendix G or otherwise, to avoid adverse water quality impacts.

Transco Response:

Transco and NJDEP are aware of the presence of existing sediment contamination that exceeds ER-M values, indicating the potential for adverse effect on benthic communities. Additionally, Transco and NJDEP considered that there is an increased risk of surface water quality standard (SWQS) exceedances for certain contaminants when dredging sediments with corresponding contaminant concentrations that exceed the ER-M thresholds (“ER-M sediments”), compared to non-ER-M sediments, assuming the dredging methods and ambient water conditions are the same. As a result, Transco proposed to implement several best management practices (BMP) when dredging ER-M sediments, such that no exceedance of SWQs are anticipated, consistent with previous NJDEP-approved dredging projects in the vicinity such as the Bayonne Energy Center Project (NJDEP File No. 0901-08-0001.1 WFD 080002) and the U.S. Navy Earle Channel Dredging Project. These BMPs include the following:

- Use of horizontal directional drill (HDD) for the Morgan Shore crossing, which reduces disturbance of contaminated nearshore sediments.
- Use of an environmental bucket for all clamshell dredging in New Jersey waters.¹
- No side-casting of dredged material.
- No barge scow overflow in areas with ER-M sediments.
- Adjustment of dredging rate as necessary to meet water quality standards.
- Development of a water quality monitoring plan, to be reviewed and approved by NJDEP prior to commencement of offshore construction.

Per NJDEP’s request, Transco will conduct modeling of the contaminant parameters identified in NJDEP’s Notice of Denial to provide additional assurance that these BMPs will be sufficient to prevent exceedances of the SWQs for chemical contaminants. Based on a June 6, 2019, conference call with NJDEP staff, Transco will evaluate the concentrations of these contaminants at a distance of 500 feet from the dredging activity in comparison to water quality standards in NJAC 7:9B. Transco intends to submit the results of the contaminant modeling to NJDEP in the coming weeks.

The NJDEP Notice of Denial also notes that “Transco did not provide modeling to show that turbidity concentrations downstream...of the dredging site...will meet the SWQS.” However, Transco has modeled the dispersion of sediment due to offshore Project dredging/trenching in

¹ A conventional bucket may be used at certain locations where initial attempts to use an environmental bucket are found to be ineffective due to sediment characteristics (e.g., areas with predominantly sandy material).

TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC
DLUR File No. 0000-01-1001.3 FWW180001, FHA180001, CSW180001, WFD180001,
WFD180002 — Northeast Supply Enhancement Project
Responses to NJDEP Notice of Denial dated June 5, 2019

terms of total suspended solids (TSS) and previously submitted these TSS modeling results to NJDEP for review (see Appendix F in Transco's Waterfront Development IP application dated June 2018). The results indicate the maximum distances predicted for TSS concentrations of 50 mg/L and 100 mg/L. The modeling results show that concentrations of 50 mg/L are not expected to extend more than 500 feet from the dredging location in New Jersey waters when using a clamshell dredge with an environmental bucket (assuming 0.5% loss to the water column).

The numerical relationship between TSS (measured in mg/L) and turbidity (measured in Nephelometric Turbidity Units [NTUs]) varies widely depending on site-specific sediment characteristics and has been observed to range up to approximately 6 mg/L per 1 NTU for previous dredging projects (Anchor Environmental 2003). Assuming a ratio of 2 mg/L per 1 NTU, a concentration of 50 mg/L would yield a result of roughly 25 NTU. Assuming a ratio of 6 mg/L per 1 NTU, a concentration of 50 mg/L would yield a result of roughly 8 NTU. In comparison, the turbidity standard listed in NJAC 7:9B is a maximum of 30 NTUs at any time for Class SE1/SE2 saline waters and 10.0 NTUs for Class SC saline waters. Therefore, use of the modeling results for TSS concentrations of 50 mg/L appears to be a reasonable proxy for identifying the distance at which compliance with the NJDEP water quality standard for turbidity would be achieved.

In addition to BMPs used to minimize the release of sediment contaminants during dredging, Transco will apply the following BMPs to reduce turbidity:

- Backfill material will be clean, sandy material, with a limited amount of fine-grained material (i.e., silt and clay).
- During backfilling, the clamshell bucket will be lowered below the water line before releasing any material.
- Where appropriate, a jet trencher will be used, reducing the area of sediment disturbance compared to clamshell dredging and minimizing or avoiding backfill activities along these segments.

Reference: Anchor Environmental. 2003. Literature Review of Effects of Resuspended Sediments Due to Dredging Operations. June 2003. Prepared for Los Angeles Contaminated Sediments Task Force.

