



Transcontinental Gas Pipe Line Company, LLC

Garden State Expansion Project

**Individual Freshwater Wetlands and
Flood Hazard Area Control Act Permit Application**

**Filed under the New Jersey Wetlands Protection Act (N.J.S.A. 13:9B-1 et seq.) and
implementing Rules (N.J.A.C. 7:7A) and the Flood Hazard Area Control Act
(N.J.S.A. 58:16A-50 et seq.) and implementing Rules (N.J.A.C. 7:13)**

Binder 1 of 5

July 2015

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TRANSCONTINENTAL GAS PIPE LINE COMPANY, LLC GARDEN STATE EXPANSION PROJECT

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State of New Jersey
Department of Environmental Protection
Division of Land Use Regulation
Mail Code 501-02A
PO Box 420
Trenton, NJ 08625-0420
Fax# (609)-777-3656
www.nj.gov/dep/landuse/



INDIVIDUAL FRESHWATER WETLANDS PERMIT INDIVIDUAL OPEN WATER FILL PERMIT

APPLICATION CHECKLIST AND FEE TABLE

(Updated February 2015)

To complete this checklist, you will need the following attachments:

- Attachment A:** Form letter for providing certified mail notice of an application
- Attachment B:** Form for providing newspaper notice of an application
- Attachment C:** List of municipalities with swamp pink plants
- Attachment D:** List of municipalities with bog turtles
- DLUR Form:** Application form

NOTES:

- Please provide only **one copy** of each item listed below, unless the item specifically states that more copies should be provided.
- The person who signs the DLUR application form as the applicant must be the owner of the site, or a person with legal authority over the site to carry out all requirements of any authorization issued. Others may assist the applicant in preparing the application, however only one person may be identified in the application as the applicant's agent. The agent may be a consultant, engineer, attorney, or other person who has assisted or prepared the application. The agent is the person to which all correspondence will be sent and the person that has authority to make decisions with regard to the application.
- The term "site," when used in this application checklist, has the meaning set forth for that term at N.J.A.C. 7:7A-1.4.

APPLICATION REQUIREMENTS:

To be deemed administratively complete, an application for an individual freshwater wetlands or open water fill permit must include all of the following items:

- ☒ 1. A DLUR application form, completed in accordance with the directions on the form;
See Section 1
- ☒ 2. The appropriate fee, indicated in the fee table below, paid as follows: **See Section 1**
- The fee shall be paid by personal check, certified check, attorney check, government purchase order, or money order;
 - The fee shall be made payable to "Treasurer, State of New Jersey";
 - Each check, purchase order, or money order must be marked with the name of the applicant;
 - Each check, purchase order, or money order must indicate the permit for which the application is submitted (for example, "freshwater individual permit");
 - If more than one permit is requested a fee break down should be included on a separate page.
- ☒ 3. Proof that the public notice requirements at A and B below have been met. (Note: To prove that an item has been sent to a person, submit either the stamped white postal receipt you receive when you send the item by certified mail, or the signed green certified mail return receipt card.) All of the following must be submitted: **See Section 5**
- A. Proof that the municipal clerk has been sent a copy of the entire application that was submitted to NJDEP;
- B. Proof that a completed copy of the notice letter found in Attachment A has been sent to each of the following:
- ☒ i. The municipal environmental commission (if one exists);
 - ☒ ii. The municipal planning board;
 - ☒ iii. The municipal construction official;
 - ☒ iv. The county planning board;
 - ☒ v. The county mosquito control agency;
 - ☒ vi. The county environmental commission (if one exists); and
 - ☒ vii. One of the following sets of neighboring landowners (applicant choose one option):
- Option 1 ☒ All owners of land within 200 feet of the boundary of the site (see N.J.A.C. 7:7A-1.4 for a definition of "site").
- If this option is chosen, the application must also include a certified list of landowners within 200 feet of the site, obtained from the municipality; or
- Option 2 ☐ All owners of land within 200 feet of the disturbance.
- If this option is chosen, the application must also include a tax map with the location of the proposed disturbance outlined, and with an area extending 200 feet on all sides of the proposed disturbance outlined;
- C. Proof that a display advertisement has been published in the newspaper of record for the municipality in which the site is located. The advertisement shall be at least four column inches in size and shall include all of the information required in the notice letter in Attachment A;
- To prove that this advertisement has been placed, the application must include a copy of the advertisement, or a copy of an affidavit from the newspaper, stating that the advertisement was published; and **See Section 5**
- D. If the project involves more than ten acres of disturbance, proof that the notice in Attachment B has been published in a newspaper with regional circulation; **See Section 5**

Note: If a project site is located in more than one municipality or county, the notice requirements in item 3 above must be met for each municipality and/or county in which the site is located.

- ☒ 4. A copy of a USGS quad map, with: the site clearly outlined; and State Plane coordinates for a point at the approximate center of the site. The accuracy of the State plane coordinate shall be within 50 feet of the actual center point of the site. Please use NAD 1983. For assistance in determining the State plane coordinates for a site, contact the Department's Geographic Information (GIS) Office at (609) 777-0672. **See Section 8**

Note: For a linear development, the State plane coordinates shall include the coordinates for the end point of the development and the coordinates for points located at 1,000 foot intervals along the entire length of the development.

- ☒ 5. An up to date county road map or local street map, with the site clearly indicated;
See Section 8
- ☒ 6. Original color photographs, mounted on 8½ by 11 inch paper, sufficient to show the conditions on the site, and the area that will be disturbed by the proposed activities. A minimum of ten photographs is required; **See Section 3**
- ☒ 7. The following information on the location of wetlands on the site:
- A. A line delineation LOI issued under N.J.A.C. 7:7A-3.3, or a line verification LOI issued under N.J.A.C. 7:7A-3.4; or
 - B. If no LOI has been issued for the site, or if only a presence/absence LOI has been issued, include all information required for an application for a line delineation LOI or line verification LOI. The wetlands line shall be shown and labeled on the site plan required below;
 - C. The total area, in acres, of wetlands and State open waters on the site before the regulated activity is performed, and the total area, in acres, of wetlands and State open waters, on the site that will remain after the regulated activity is performed.
See Wetland Delineation in Section 2 and LOI Site Plan in Section 9
- ☒ 8. Ten copies of a detailed project description including: **See Item 5 in Section 1 and SOC in Section 2 Attachment A**
- A. The purpose and intended use of the proposed project;
 - B. A description of the proposed activities involved in completing the project;
 - C. A description of any structures to be erected, and how they will be used;
 - D. A schedule for the progress and completion of the proposed project;
 - E. The total area of freshwater wetlands and/or state open waters on the site;
 - F. The total area of freshwater wetlands and/or State open waters proposed to be disturbed;
 - G. A statement indicating whether the proposed project is a "water-dependent activity", as defined at N.J.A.C. 7:7A-1.4;
 - H. If a site is known or suspected to be contaminated with toxic substances, and if the Department requests it, a laboratory analysis of representative samples of the soil or sediment on the site;
- ☒ 9. Ten copies of a detailed alternatives analysis demonstrating compliance with N.J.A.C. 7:7A-7.2. The alternatives analysis shall include: **See Section 2 Attachment A SOC**
- A. A description of all alternatives considered, including offsite alternatives as well as onsite alternatives that could minimize environmental impacts on the site, and the reasons for rejecting each alternative;
 - B. Information regarding the history of the property as a whole, as necessary to evaluate the cost to the property owner of various alternatives. Such information may include:

- i. Document(s) showing when the property as a whole, as defined at N.J.A.C. 7:7A-1.4, was acquired and its purchase price;
- ii. Documentation of any investments made to maintain and/or develop the property as a whole;
- iii. Documentation of attempts by the property owner to sell the property or to obtain other property; and
- C. Documentation of the environmental impacts of the proposed project, and of ways to minimize those impacts

- ☒ 10. Information regarding whether other approvals are required for the activities by Federal, interstate, State and local agencies for the activity; information regarding whether any such approvals or denials have been received; and information regarding whether the proposed activities are consistent with the rules, plans, or policies of other Federal, interstate, State and local agencies: **See Section 2 Attachment A SOC**
- ☒ 11. Ten copies of an explanation of how the proposed project will meet each of the requirements listed at N.J.A.C. 7:7A-7.2(b)1 through 15 and (c); **See Section 2 Attachment A SOC**
- ☒ 12. If the proposed project is not a "water-dependent activity", as defined at N.J.A.C. 7:7A-1.4, submit ten copies of documentation that all of the following criteria are met:**See Section 2 Attachment A SOC**
 - A. 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;
 - B. 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;
 - C. The basic project purpose cannot reasonably be accomplished by an alternative design that would avoid or reduce the adverse impact on an aquatic ecosystem; and
 - D. 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;
- ☐ 13. If the proposed project will take place in an exceptional resource value wetland or trout production water, and the project is not a "water-dependent activity", as defined at N.J.A.C. 7:7A-1.4, the applicant must submit ten copies of documentation (in addition to the information required under item 12 above) that one or both of the following criteria are met:
 - A. There is a compelling public need for the proposed activity greater than the need to protect the freshwater wetland or trout production water, and that 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
 - B. Denial of the permit would impose an extraordinary hardship on the applicant brought about by circumstances peculiar to the subject property;
- ☒ 14. Ten copies of a description of best management practices, as defined at N.J.A.C. 7:7A-1.4, by which the applicant proposes to prevent or reduce the adverse environmental effects of the proposed activity on freshwater wetlands, transition areas, State open waters, and adjacent habitats; **See Section 2 Attachment A SOC**

- ☒ 15. Ten copies of a list of all plants, fish and/or wildlife in the portion of the site that will be affected by the proposed activities, which may be dependent on water quality and/or quantity;
See Section 2 Attachment A SOC
- ☒ 16. Ten copies of a list and description of all freshwater wetlands, vegetative communities, special aquatic sites (as defined at N.J.A.C. 7:7A-1.4), public use areas, wildlife refuges, and potable water intakes on the site or adjacent to the site, which may require special protection or preservation;
See Section 2 Attachment A SOC and Attachment B Wetland Delineation Report
- ☒ 17. A copy of the deed and/or other relevant documents pertaining to the site, showing property boundaries, ownership, easements, restrictions, previous approvals by any local, federal, interstate or state agency, and any other information relating to the site that will assist the Department in assessing compliance with the Freshwater Wetlands Protection Act rules, N.J.A.C. 7:7A; **See Section 2 Attachment C Deeds**
- ☒ 18. Ten folded copies of a site plan or subdivision map, signed and sealed by a licensed surveyor and, where appropriate, a licensed engineer, showing: **See Section 9**
 - A. All existing structures on the site and on all immediately adjacent lots;
 - B. All proposed structures, disturbances, and activities;
 - C. Distances and dimensions of areas, structures and lots, including the boundaries of freshwater wetlands, state open waters, uplands, roads, and utility lines;
 - D. A complete delineation of the wetlands boundary in accordance with the requirements of letter of interpretation line verification. A letter of interpretation issued by the Department which show the wetlands boundary may be submitted to satisfy this requirement. Include a copy of a map or plan, which depicts the approved line;
 - E. The area which will be used for the proposed activity or discharge;
 - F. The location of the site in relation to development in the region;
 - G. The scale of the plan and a north arrow;
 - H. The name of all persons who prepared the plan and the date of preparation;
 - I. The name of the applicant, and municipal lot(s) and block number(s) of the project site;
- ☒ 19. Ten folded copies of a cross-sectional view of the proposed area of disturbance, showing: **See Section 9**
 - A. Existing water elevations of the wetlands or open water;
 - B. Existing water depths at the waterward face of the proposed activities, or if dredging is proposed, show the dredging grade;
 - C. Cross-section of fill;
 - D. Elevation of dredged material disposal areas;
 - E. Location of wetlands and State open waters;
 - F. Delineation of disposal site; and
 - G. A complete title block stating the municipality, county; name of applicant; and date the plan was prepared.
- ☒ 20. Ten copies of a description of the source and location of any dredged material or fill material, as those terms are defined at N.J.A.C. 7:7A-1.4, that will be discharged on the site, or that will be dredged or excavated on the site, including: **See Section 2 Item 20**
 - A. The method of dredging used, if any;
 - B. The type, composition and quantity of the material;
 - C. The proposed method of transporting the dredged or fill material; and
 - D. The method of disposal of the material, including the type of equipment to be used;

- ☒ 21. A mitigation proposal that meets the requirements of N.J.A.C. 7:7A-15. The mitigation proposal may be submitted with the application or it may be submitted later. However, no permitted activities may begin until the Department has approved a mitigation proposal;
See Section 10
- ☐ 22. If the site is located in a municipality with the endangered plant known as swamp pink (*Helonia Bullata*) (these municipalities are listed in Attachment C), the application must also include a signed statement from the applicant, certifying that the proposed activities will not result in any direct or indirect adverse impacts to swamp pink or its documented habitat;
N/A
- ☒ 23. If the site is located in a municipality with the endangered bog turtle (these municipalities are listed in Attachment D), the application must also include a signed statement from the applicant, certifying that the proposed activities will not result in any direct or indirect adverse impacts to bog turtles or to their documented habitat;
See Section 2 Attachment D and Section 4
- ☒ 24. If the application is for a proposed project that has disturbances of $\frac{1}{4}$ acre impervious surface in freshwater wetlands and/or transition area **or** if the total pervious and impervious disturbance to wetlands and/or transition is greater than an acre **or** if more than $\frac{1}{4}$ acre of impervious surface drains to any outfall requiring a general permit 11 the applicant must submit a Stormwater Report that proves the proposed project meets the Water Quality Standards at N.J.A.C. 7:8 and a full set of construction site plans. **See Section 7 - Stormwater Engineering Report**

In addition to the above the following must be submitted

Stormwater management must be provided in certain cases as described below. See www.njstormwater.org for more information. (Note: if your freshwater wetlands application is being submitted jointly with a stream encroachment, waterfront development and/or CAFRA application, different means of determining whether the Stormwater Management rules may apply.)

A. Check (and explain) if the project:

- ☐ Is exempt from the stormwater rules at N.J.A.C. 7:8-5.2(d). (In such cases, you do not need to complete the rest of this section.)
- ☐ Meets the waiver requirements for public roadway improvements at N.J.A.C. 7:8-5.2(e).

B. Enter the total amount of land that will be disturbed (as described below):

21 ft² or acres (circle one).

"Disturbance" means the sum of the following:

- The total amount of proposed disturbance within freshwater wetlands, transition areas and open waters onsite.
- The total amount of proposed disturbance onsite, if runoff from the disturbed area will be collected and discharged into freshwater wetlands, transition areas or open waters.

If at least 1 acre (43,560 ft²) of land will be disturbed, as described above, submit the following (in the engineering report): **See Section 7 - Stormwater Engineering Report**

- ☒ One completed Low Impact Design checklist (see Appendix A of BMP manual at www.njstormwater.org).
- ☒ One copy of a USGS map, showing the site and its HUC-14 watershed and indicating any 300-ft buffers onsite.
- ☒ Proof that the groundwater recharge standards at N.J.A.C. 7:8-5.4(a)2 are met (unless exempted at N.J.A.C. 7:8-5.4(a)2ii).

- ☒ Proof that the runoff quantity standards at N.J.A.C. 7:8-5.4(a)3 are met (unless the project lies in a tidal floodplain and will cause no adverse impacts to flooding, as described at N.J.A.C. 7:8-5.4(a)3iv).
- ☒ Proof that the use of nonstructural stormwater strategies has been maximized onsite via one of the following:
- ☒ A completed Nonstructural Stormwater Strategies Point System spreadsheet (see www.njstormwater.org).
- ☒ A detailed narrative (including an alternative analysis where necessary), explaining how the project does (or does not) implement all nine nonstructural strategies required at N.J.A.C. 7:8-5.3.

C. Enter the net-increase in impervious area onsite (as described below):
10.50 ft² or acres (circle one).

"Impervious areas" means the sum of the following:

- The total amount of proposed impervious areas within freshwater wetlands, transition areas and open waters onsite.
- The total amount of proposed impervious areas onsite, if runoff from the impervious areas will be collected and discharged into freshwater wetlands, transition areas or open waters. Include all new impervious areas onsite, as well as existing impervious areas from which stormwater currently sheet-flows, but which will be collected into a basin or storm sewer system. Subtract any impervious areas being removed onsite, if runoff from the area to be removed is currently collected and discharged into within freshwater wetlands, transition areas and open waters.

If a net-increase of at least ¼ acre (10,890 ft²) of impervious area will occur, as described above, submit all material in Part B above and the following:

- ☒ Proof (in the engineering report) that the water quality standards at N.J.A.C. 7:8-5.5 are met.

D. Complete a Stormwater Review Fee worksheet to calculate the appropriate stormwater review fee

- ☐ 25. If the site is located in an area designated a Wild and Scenic River, or under study for such designation, submit a letter from the National Park Service approving the proposed activities.
N/A
- As of August 1, 2001, the water bodies containing designated wild and scenic river areas in New Jersey are:
 - The Maurice River and tributaries;
 - The Great Egg Harbor River and tributaries
 - Portions of the Mullica/Lower Atsion River; and
 - Portions of the Delaware River.
 - Contact the Department at the above address for more detailed information on wild and scenic rivers.
- ☒ 26. Applications reflecting any of the characteristics at N.J.A.C. 7:7A-12.2(l)1-5 shall be deemed to present a high probability of the presence of historic and archaeological resources, requiring assessment and shall require, with the wetlands permit application, the submittal of a Phase IA historical and archaeological survey, and an architectural survey, defined at N.J.A.C. 7:7A-1.4. Please see N.J.A.C. 7:7A-12.2(l), (m), (n), (o) and (p) for more details.

See Section 4

For more information, see the Freshwater Wetlands Protection Act rules at N.J.A.C. 7:7A.

**INDIVIDUAL FRESHWATER WETLANDS PERMIT
INDIVIDUAL OPEN WATER FILL PERMIT
APPLICATION FEES**

Type of approval	Fee
Freshwater wetlands or open water fill individual permit for the construction of one single-family home or duplex and/or appurtenant improvements, which is not being constructed as part of a residential subdivision or multi-unit development	\$2,000.00 (Plus, as applicable, the additional fees for major developments as defined at N.J.A.C. 7:8-1.2)
Freshwater wetlands or open water fill individual permit for any other activity	\$5,000 plus \$2,500 per acre of disturbed regulated area (or fraction thereof) (Plus, as applicable, the additional fees for major developments as defined at N.J.A.C. 7:8-1.2)
Individual permit extension	50 percent of original application fee or \$500.00, whichever is greater
Minor modification	\$500.00
Major modification	30 percent of the original application fee or \$500.00, whichever is greater

NOTES:

- When these fee tables refer to a cost "per acre," this means the cost is per acre or fraction thereof. For example, an area of one and one third acres would have the same fee as an area of two acres.
- When these fee tables refer to an "regulated area," this means an acre of freshwater wetlands, State open waters, or transition area that will be affected by a regulated or prohibited activity.

Mail Code 501-04
Department of Environmental Protection
State Forestry Services
Office of Natural Lands Management
P.O. Box 420 Trenton, New Jersey 08625-0420
(609) 984-1339 Fax: (609) 984-1427

Invoice

Date

9/24/2014

Invoice #

6275

Bill to:
AECOM
125 Rock Road
Horsham, PA 19044-2310

Make check payable to:
Office of Natural Lands Management
And forward with a copy of this statement to:
Mail Code 501-04
Office of Natural Lands Management
P.O. Box 420 Trenton, New Jersey 08625-0420

Quantity (hrs.)	Description	Rate (per hr.)	Amount
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1

Charge for Natural Heritage Database search for rare species and ecological communities locational information.
Project: 14-4007426-6275

\$ 70.00

\$ 70.00

Heather Brewster
Project Name: Garden State Expansion (Greenfield Station 203)

Total

\$ 70.00

Table 1: On Site Data Request Search Results (7 Possible Reports)

Rare Plants/Ecological Communities Possibly On Site:	No
Rare Plants/Ecological Communities On Site/Immediate Vicinity:	No
Natural Heritage Priority Sites On Site:	No
Landscape 3.1 Species Based Patches On Site:	Yes
Landscape 3.1 Vernal Pool Habitat On Site:	No
Landscape 3.1 Stream/Mussel Habitat On Site:	No
Other Animals Tracked by ENSP On Site:	No

Rare Wildlife Species or Wildlife Habitat on the Project
 Site Based on Search of
 Landscape Project 3.1 Species Based Patches

Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection Status	State Protection Status	Grank	Srank
Aves	Great Blue Heron	Ardea herodias	Foraging	2	NA	Special Concern	G5	S3B,S4N

Table 2: Within 1 Mile for FHACA Searches (6 possible reports)

Rare Plants/Ecological Communities within 1 mile:	No
Natural Heritage Priority Sites within 1 mile:	No
Landscape 3.1 Species Based Patches within 1 mile:	Yes
Landscape 3.1 Vernal Pool Habitat within 1 mile:	Yes
Landscape 3.1 Stream/Mussel Habitat within 1 mile:	Yes
Other Animals Tracked by ENSP within 1 mile:	Yes

**Rare Wildlife Species or Wildlife Habitat Within One
Mile of the Project Site Based on Search of
Landscape Project 3.1 Species Based Patches**

Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection Status	State Protection Status	Grank	Srank
<i>Aves</i>	Bobolink	Dolichonyx oryzivorus	Breeding Sighting	3	NA	State Threatened	G5	S2B,S3N
	Cooper's Hawk	Accipiter cooperii	Nest	2	NA	Special Concern	G5	S3B,S4N
	Great Blue Heron	Ardea herodias	Foraging	2	NA	Special Concern	G5	S3B,S4N
	Wood Thrush	Hylocichla mustelina	Breeding Sighting	2	NA	Special Concern	G5	S3B

**Vernal Pool Habitat
Within One Mile of the Project Site
Based on Search of
Landscape Project 3.1**

Vernal Pool Habitat Type	Vernal Pool Habitat ID
Potential vernal habitat area	1601
Potential vernal habitat area	1606
Total number of records:	2

**Rare Wildlife Species or Wildlife Habitat
Within One Mile of the Project Site
Based on Search of
Landscape Project 3.1 Stream Habitat File**

Link ID	Common Name	Scientific Name	Feature Type	Rank	Federal Protection Status	State Protection Status	Grank	Strank	Last Observed	Count
105381	Eastern Pondmussel	Ligumia nasuta	Occupied Habitat	3	NA	State Threatened	G4	S2	2002	7

Total number of records: 1

Other Animal Species

Within One Mile of the Project Site Based on
Additional Species Tracked by
Endangered and Nongame Species Program

Scientific Name	Common Name	Federal Protection Status	State Protection Status	Grank	Srank
<i>Invertebrate Animals</i>					
<i>Faronta rubripennis</i>	Pink Streak			G3G4	S3
Total number of records:		1			



Table 4.3-1 Wetland Impacts Associated with the Garden State Expansion Project

Project Component	Wetland Impact by Vegetation Type and Impact Type (acres/sq. ft.)								Total Wetland Impact (acres/ sq. ft.)	
	PEM Wetland Temporary ^a		PEM Wetland Permanent Fill ^b		PFO Wetland Permanent Conversion ^c		PFO Wetland Permanent Fill ^b			
	Acres	Sq. Ft.	Acres	Sq. Ft.	Acres	Sq. Ft.	Acres	Sq. Ft.	Acres	Sq. Ft.
Electrical Substation W-BU-001	1.564	68,111	2.038	88,768	0.127	5,525	0.000	0	3.728	162,404
Electrical Conduit W-BU-001	0.352	15,341	0.048	2,081	0.084	3,656	0.000	0	0.484	21,078
Suction/Discharge Piping W-BU-001	0.983	42,840	0.122	5,333	0.305	13,307	0.000	0	1.411	61,480
Valve Site W-BU-001	0.070	3,055	0.545	23,745	0.000	0	0.000	0	0.615	26,800
Compressor Station W-BU-002	0.000	0	0.000	0	0.000	0	0.000	0	0.000	0
Total	2.969	129,347	2.753	119,927	0.516	22,488	0.000	0	6.239	271,762

Notes:

Cowardin Classifications: PEM = Palustrine Emergent Wetland PFO = Palustrine Forested Wetland

^a: PEM area will be temporarily impacted during construction but will be restored to preconstruction state and revegetated.

^b: PEM and PFO area will be permanently filled for a project component and will no longer provide wetland biological functions.

^c: PFO area will be converted to PEM within the station piping construction ROW. Portions within the temporary construction ROW will be restored and allowed to revert back to forest, but these areas have been treated as permanent per NJDEP permitting rationale.

4.4 Transition Areas

NJDEP defines a transition area as "an area of upland adjacent to a freshwater wetland which minimizes adverse impacts on the wetland or serves as an integral component of the wetlands ecosystem." Under N.J.A.C. 7:7A-2.5 a transition area is required adjacent to a freshwater wetland of exceptional resource value and of intermediate resources value. A transition area is not required adjacent to a freshwater wetland of ordinary resource value or adjacent to a State open water. Additionally, the standard width of a transition area adjacent to a freshwater wetland of exceptional resource value shall be 150 feet and the standard width of a transition area adjacent to a freshwater wetland of intermediate resource value shall be 50 feet. These standard widths shall only be modified through the issuance of a transition area waiver from the NJDEP.



The wetlands in the Project area were determined to have Ordinary Resource Values with a standard transition area of 50 feet since the Project area does not have the presence of FW1 and FW2 Trout Production waters or Species Based Patches (threatened and endangered species habitat). Table 4.3-2 below summarizes the calculated temporary and permanent transition area impacts.

**Table 4.3-2 Transition Area Impacts
Associated with the Garden State Expansion Project**

Table 4.3-2 Transition Area Impacts Associated with the Garden State Expansion Project										
Project Component	Transition Area Impact by Vegetation Type and Impact Type (acres/sq. ft.)								Total Transition Area Impact (acres/ sq. ft.)	
	Upland Herbaceous Temporary ^a		Upland Herbaceous Permanent Fill ^b		Upland Forested Permanent Conversion ^c		Upland Forested Permanent Fill ^b			
	Acres	Sq. Ft.	Acres	Sq. Ft.	Acres	Sq. Ft.	Acres	Sq. Ft.	Acres	Sq. Ft.
Electrical Substation W-BU-001	0.472	20,581	1.010	43,994	0.146	6,355	0.000	0	1.628	70,930
Electrical Conduit W-BU-001	0.239	10,407	0.005	200	0.201	8,751	0.003	126	0.447	19,484
Suction Discharge Piping W-BU-001	0.556	24,234	0.031	1,346	0.241	10,497	0.000	0	0.828	36,077
Valve Site W-BU-001	0.325	14,149	0.033	1,436	0.261	11,351	0.068	2,981	0.687	29,917
Compressor Station W-BU-002	0.000	0	0.000	0	0.047	2,034	0.000	0	0.047	2,034
Total	1.593	69,371	1.078	46,976	0.895	38,988	0.071	3,107	3.637	158,442

Notes:

- ^a: Herbaceous area will be temporarily impacted during construction but will be restored to preconstruction state and revegetated.
- ^b: Herbaceous and Forested area will be permanently filled for a project component and will no longer provide transition area biological functions.
- ^c: Forested area will be converted to herbaceous within the station piping construction ROW. Portions within the temporary construction ROW will be restored and allowed to revert back to forest, but these areas have been treated as permanent per NJDEP permitting rationale.

4.5 Existing Wildlife Resources

Vegetation type is an important environmental component which helps define wildlife habitat, and thus wildlife species distribution. This section has defined wildlife habitat types in terms of the vegetation community types described as wetlands, forest/woodland, open land/meadow, and agricultural land. However, because agricultural land vegetation types are highly modified from natural environmental settings, the discussion of these vegetation cover types as wildlife habitat will be limited. This is not to say that agricultural land cannot function as wildlife habitat; however, the wildlife diversity of this habitat



type is often highly limited by the human-induced changes to the landscape, and thus the long-term operation of the Project is of little significance with regard to shaping or limiting wildlife presence or distribution.

4.5.1 Wetlands

Although wetlands may be described separately as a habitat type that defines the distribution of some wildlife species, wetlands are considered sub-habitat types within the discussion of open land/scrub-shrub and forest. Typical wildlife species found in emergent wetlands may include a variety of amphibians, such as eastern newt (*Notophthalmus viridescens*), green frog (*Rana clamitans*) and bullfrog (*Rana catesbeiana*); reptiles, such as northern water snake (*Nerodia sipedon*), and birds, such as American black duck (*Anas rubripes*), gadwall (*Anas strepera*), redwing blackbird (*Agelaius phoeniceus*), common yellowthroat (*Geothlypis trichas*), and Canada goose (*Branta canadensis*). Common wildlife species typically found in scrub-shrub and forested wetlands include northern black racer (*Coluber constrictor*), Carolina wren (*Thryothorus ludovicianus*), striped skunk (*Mephitis mephitis*), and raccoon (*Procyon lotor*).

4.5.2 Agricultural Land

Several species of wildlife, characterized as habitat generalists, may utilize the agricultural lands in the Project area. The agricultural land within the Project area consists of the portion of property where the Station 203 and Chesterfield M&R will be situated and is surrounded by upland forest and wetland habitat, and wildlife use these areas for cover and then emerge into the agricultural fields to feed.

Bird species often found using these areas include wild turkey (*Meleagris gallopavo*), American kestrel (*Falco sparverius*), eastern meadowlark (*Sturnella magna*), and mourning dove (*Zenaidura macroura*). Common mammals include, woodchuck (*Marmota monax*), striped skunk, meadow vole (*Microtus pennsylvanicus*), and white-footed mouse (*Peromyscus leucopus*). Agricultural lands may also provide feeding and resting areas for the white-tailed deer (*Odocoileus virginianus*) and Canada geese.

4.5.3 Forest/Woodland

The forested upland areas of the Project provide habitat for a number of wildlife species and consists of small portions located within the limits of the Station 203 Project area. The different vegetation layers present from the canopy to the leaf litter support a variety of wildlife species. Upland forests support mammals such as the white-tailed deer, raccoon, and gray squirrel (*Sciurus carolinensis*) and birds such as red-tailed hawk (*Buteo jamaicensis*), sharp-shinned hawk (*Accipiter striatus*), rose-breasted grosbeak (*Pheucticus ludovicianus*), pileated woodpecker (*Dryocopus pileatus*), and northern flicker (*Colaptes auratus*). Under story trees and shrubs provide food and cover for birds such as the blue jay (*Cyanocitta cristata*), white-breasted nuthatch (*Sitta carolinensis*), junco (*Junco hyemalis*), and northern cardinal (*Cardinalis cardinalis*). Detritus on the forest floor provides food and cover for a variety of invertebrates as well as small mammals such as the white-footed mouse, eastern chipmunk (*Tamias striatus*), and woodchuck. Reptiles and amphibians such as the eastern box turtle (*Terrapene carolina*), and leopard frog (*Rana pipiens*) are also represented in this habitat. The red fox (*Vulpes vulpes*) is also attracted to these areas by the abundance and diversity of prey species.

4.5.4 Open Land (Meadow, Utility/Transportation Corridor)

Open land includes all non-forested vegetated areas that are not in agricultural production or landscaped. This vegetation class includes grasslands, successional scrub-shrub areas, fields, and maintained utility ROWs. These habitat types are present within the majority of the Station 203 area, consisting of the



electrical substation property and station piping tie-in. Grasslands, old fields, and brushy areas can be utilized as foraging and nesting habitat by mammals and songbirds. Shrublands provide sources of food and nesting sites for various birds, as well as cover for invertebrates, reptiles, and amphibians. Shrublands and grassland habitats are attractive to many wildlife species, because they provide protection, nesting, and food sources. Species such as the Eastern cottontail (*Sylvilagus floridanus*), gray squirrel (*Sciurus carolinensis*), red fox, Virginia opossum (*Didelphis virginiana*), raccoon, wild turkey, field sparrow (*Spizella pusilla*), northern mockingbird (*Mimus polyglottos*), blue jay, American crow (*Corvus brachyhyrnchos*), red-tailed hawk, woodchuck, white-footed mouse, meadow vole, coyote (*Canis latrans*), and white-tailed deer utilize these types of habitats. Additional typical wildlife species found within the upland scrub/shrub communities in the Project area may include northern short-tailed shrew (*Blarina brevicauda*), striped skunk (*Mephitis mephitis*), eastern chipmunk, and eastern gray squirrel (AOU 2004 and 2005; Behler and King 1979; NGS 1987; Wilson and Ruff 1999).

Edges, where natural habitats lay adjacent to developed or maintained areas, also create other habitat types which are utilized by a distinct group of wildlife. Open lands can be regularly maintained, cleared, or abandoned for the promotion of successional growth habitats. The areas of existing ROWs present within the Project area provide corridors that are utilized by several species to move between habitats. These species may include white-tailed deer, coyote, Eastern cottontail, and forest edge bird species, such as the American robin (*Turdus migratorius*), brown thrasher (*Toxostoma rufum*), field sparrow (*Spizella pusilla*) and the northern cardinal, which are present where open areas border forest edges

4.6 Threatened and Endangered Species

On behalf of Transco, AECOM initiated correspondence with the United States Fish and Wildlife Service (USFWS) and New Jersey Natural Heritage Program (NJ NHP) to identify the presence of federally and/or state-listed threatened and rare species of flora and fauna habitat (See Section 4 – Agency Correspondence). Field surveys for the species identified by the USFWS and NJ NHP were conducted by qualified field specialists.

4.6.1 Federal Species

Section 7 of the ESA (16 U.S.C.A. §§ 1531-1543, P.L. 93-205) requires each federal agency to ensure that any action authorized, funded, or carried out by the agency does not jeopardize the continued existence of federally-listed threatened or endangered species, or result in the destruction or adverse modification of the designated critical habitat for any federally listed threatened or endangered species. The FERC, as the lead agency in the review of the proposed Project, is required to consult with the USFWS to determine whether federally-listed or proposed species, or their designated critical habitat may occur in the Project area, and to determine the Project's potential effects on these species and critical habitats.

In the State of New Jersey, USFWS mandates that consultation is only required when a proposed action may affect a federally listed species and then consultation requires federal agencies to consult with the USFWS. Review of the IPaC system for Station 203 identified northern long-eared bat (*Myotis septentrionalis*) and bog turtle (*Clemmys muhlenbergii*). A bog turtle habitat assessment was completed by a USFWS certified bog turtle surveyor and determined potential habitat is not present within the wetlands delineated onsite. Transco submitted a Technical Assistance request dated December 19, 2015 to further identify potential USFWS concerns outside the formal agency to agency consultation process. The Technical Assistance request detailed the Project scope and provided a habitat assessment and summary of the land use impacts. USFWS concurred with the negative bog turtle habitat assessment. Regarding northern long-eared bat, as conveyed to USFWS, Transco will adhere to



the seasonal timing restriction and will clear trees within the September 30 to March 15 window to avoid impacts to northern long-eared bat and migratory birds. Based on that condition, USFWS provided clearance. However, Transco completed summer bat surveys at Station 203 and did not capture any northern long-eared bats or Indiana bats (*Myotis sodalis*), and the survey report has been submitted to USFWS for review on July 20, 2015 and a copy is provided in Section 4. Should UFSWS concur with the negative findings Transco expects that a timing restriction will not be required. If USFWS approves clearing within the timing restriction window, in order to adhere to NJDEP's migratory bird timing restriction, Transco will complete nest surveys prior to completing any non-mechanical tree clearing.

Table 4.6-1 presents the species identified in the USFWS correspondence. Descriptions of each species are also provided. The results of the threatened and endangered species surveys are considered privileged and confidential information and have therefore not been included in this application.

Table 4.6-1 Federal Listed Endangered and Threatened Species Identified in the Vicinity of the Project				
Species Name	Status	Habitat	Potential for Occurrence in Project Area	Seasonal Timing Restrictions or Proposed Mitigation
Station 203 - Burlington County, NJ				
Northern long-eared Bat <i>Myotis septentrionalis</i> USFWS Identified	Proposed Endangered	Old-growth forests composed of trees 100 years old or older. It relies on intact interior forest habitat, with low edge-to-interior ratios	Upland and wetland forest located within Project Area	Project scope will only result in minor tree clearing, which provides minimal habitat. Surveys did not capture this species
Bog Turtle <i>Clemmys muhlenbergii</i> USFWS Identified	Threatened	Slow, shallow, muck-bottomed rivulets of sphagnum bogs, calcareous fens, marshy/sedge-tussock meadows, spring seeps, wet cow pastures, and shrub swamps; the habitat usually contains an abundance of sedges or mossy cover	Habitat not found on Project site	None USFWS Clearance received

4.6.2 State Species

In New Jersey, threatened and endangered species are protected under the New Jersey State Endangered and Nongame Species Conservation Act (N.J. Stat. Ann. §523:2A-1: et seq.) and the Endangered Plant Species List Act (N.J. Stat. Ann. §13:1B-15.151). The NJ NHP has identified



threatened and endangered species under their jurisdiction that may occur in the Project area. These species are listed in Table 4.6-2.

Table 4.6-2 State Listed Endangered and Threatened Species Identified in the Vicinity of the Project				
Species Name	Status	Habitat	Potential for Occurrence in Project Area	Seasonal Timing Restrictions or Proposed Mitigation
Station 203 - Burlington County, NJ				
Great blue Heron <i>Ardea Herodias</i> NJNHP identified for Project Site	Special Concern	Freshwater and brackish marshes, along lakes, rivers, bays, lagoons, ocean beaches, mangroves, fields, and meadows. Nests commonly high in trees in swamps and forested areas, less commonly in bushes, or on ground, rock ledges, and coastal cliffs	Habitat not found on Project site	None
Bobolink <i>Dolichonyx oryzivorus</i> NJNHP identified within 1-mile of Project Site	State Threatened	Breeding habitat includes tall grass areas, flooded meadows, prairie, deep cultivated grains, and hayfields	Agricultural field and fallow meadow located within Project area	Not identified for site.
Cooper's Hawk <i>Accipiter cooperii</i> NJNHP identified within 1-mile of Project Site	Special Concern	Nest mostly in mixed deciduous-coniferous forest with eastern hemlock the dominant coniferous species at many sites	Upland forest located within Project area; however, not dominated by hemlock	Not identified for site. Project scope will only result in minor tree clearing, which provides minimal habitat.
Wood Thrush <i>Hylocichla mustelina</i> NJNHP identified within	Special Concern	Deciduous or mixed forests with a dense tree canopy and a fairly well-developed	Forested wetland located within Project area	Not identified for site. Project scope will only result in minor tree clearing, which provides minimal habitat.



Table 4.6-2 State Listed Endangered and Threatened Species Identified in the Vicinity of the Project				
Species Name	Status	Habitat	Potential for Occurrence in Project Area	Seasonal Timing Restrictions or Proposed Mitigation
1-mile of Project Site		deciduous understory, especially where moist		
Eastern Pondmussel <i>Ligumia nasuta</i> NJNHP identified within 1-mile of Project Site	State Threatened	Protected areas of coastal lakes and ponds, in slackwater areas of rivers, slow moving streams, and in canals in a wide range of substrates	Habitat not found on Project site	None Not identified for site. Only intermittent drainages/ditches will be temporarily impacted by the Project.

Only one species was identified for the Project site, which consists of great blue heron, whereas the remaining species were identified within 1-mile of the Project site. The species listed above in Table 4.4-2 may have the potential to occur in the Project area; however, it is very unlikely they will be impacted by the Project due to the minor tree clearing activities, lack of or marginal habitat, and where necessary the implementation of timing restrictions will mitigate for any potential impact. Continued consultation will occur as necessary to develop and implement appropriate avoidance and mitigation measures as necessary to avoid adverse impacts to any rare wildlife identified within the Project area.

4.7 Cultural Resources

Transco's cultural resource consultant, GAI Consultants, Inc. (GAI) has prepared technical survey reports for both the archaeological and historic architectural survey work completed within the entirety of the properties pertaining to the Project. As required under Line Item 26 of the Application Checklist for an Individual Freshwater Wetlands Permit, Transco has included both the archeological and architectural clearance received for the Project to date from the New Jersey Historic Preservation Office (NJ HPO) and are located in Section 4 Agency Correspondence. No National Register-eligible sites have been identified for the Project as of the date of this application.

4.8 Public Land

None of the following resources have been identified within 0.25 miles of the Project:

- National or state parks and forests
- Indian reservations
- Wilderness areas
- Wildlife management areas



- Nature preserves
- National trails
- National Wild and Scenic Rivers
- Registered natural landmarks
- Flood control land

There are identified Green Acres properties near the Project location, however none are crossed or impacted by the proposed Project activities. No other public recreation or other designated special use areas were identified during the map and field review, or from consultations with federal, state, and county agencies (USGS 1995, Gazetteer 2005). There are no federal National Park Service parks, Wild and Scenic Rivers or Study Rivers or National Forests within 1,500-feet of the Project (NPS 2014).

4.8.1.1 Green Acres

The Green Acres program was created in 1961 to meet New Jersey's growing recreation and conservation needs. Title 7, Chapter 36 of the New Jersey Administrative Code establishes the provisions of the Green Acres program and sets forth regulations pertaining to activities within Green Acres properties. Green Acres funding provides for the acquisition of land and the construction of parks throughout New Jersey. Together with public and private partners, the Green Acres program has protected over 1.2 million acres of open space and provided hundreds of outdoor recreational facilities in communities around the state. The goal of the Green Acres program is to achieve, in partnership with others, a system of interconnected open spaces, whose protection will preserve and enhance New Jersey's natural environment and its historic, scenic, and recreational resources for public use and enjoyment (NJDEP 2014).

Transco performed a review of the Recreation and Open Space Inventory (ROSI) database maintained by the Green Acres Program and municipal and county level requests for a list of ROSI properties. The Green Acres database includes municipal, county, and nonprofit parkland encumbered by the Green Acres Program and does not reflect State owned parkland. Each Local Unit (municipality or county) is required to prepare a ROSI as a condition of applying for and receiving Green Acres funding. The ROSI lists all Green Acres-funded properties ("funded parkland") as well as all other lands held for conservation and/or recreation purposes at the time the Local Unit last received funding from Green Acres ("unfunded parkland") (NJDEP 2014). Table 4.8-1 below provides a list of Green Acres properties that have been identified to date in the vicinity of the Project. In addition, Bordentown Township consultation specifically described two municipally-owned, preserved open spaces within 0.25 miles of the electrical substation parcel (that are included in the Green Acres Program). These properties are the Veterans Park Open Space (located northwest of the intersection of Bordentown-Chesterfield Road (County Road 528) and Hogaback Road (Block 90, Lot 6), and the Holloway Meadows Open Space, located west of the New Jersey Turnpike and east of the Holloway Meadows development (Block 92.01, Lot 16).



Table 4.8-1 Green Acres Properties Located Within 0.25 mile of Project				
County	Township	Approximate Distance (feet) ^a	Block/Lot	Ownership
Electrical Substation and Station Piping				
Burlington	Chesterfield	None		
	Bordentown	670	93/9.01	Board of Chosen Freeholders of BC
		250	93/10	Bordentown Township
		540	92.01/1	Bordentown Township (Holloway Meadows Open Space)
		1,150	90/6	Bordentown Township (Veterans Park Open Space)
Chesterfield M&R Station and Station 203				
Burlington	Chesterfield	None		
	Bordentown	785	93/9.01	Board of Chosen Freeholders of BC
		945	93/10	Bordentown Township

a: From proposed construction activity

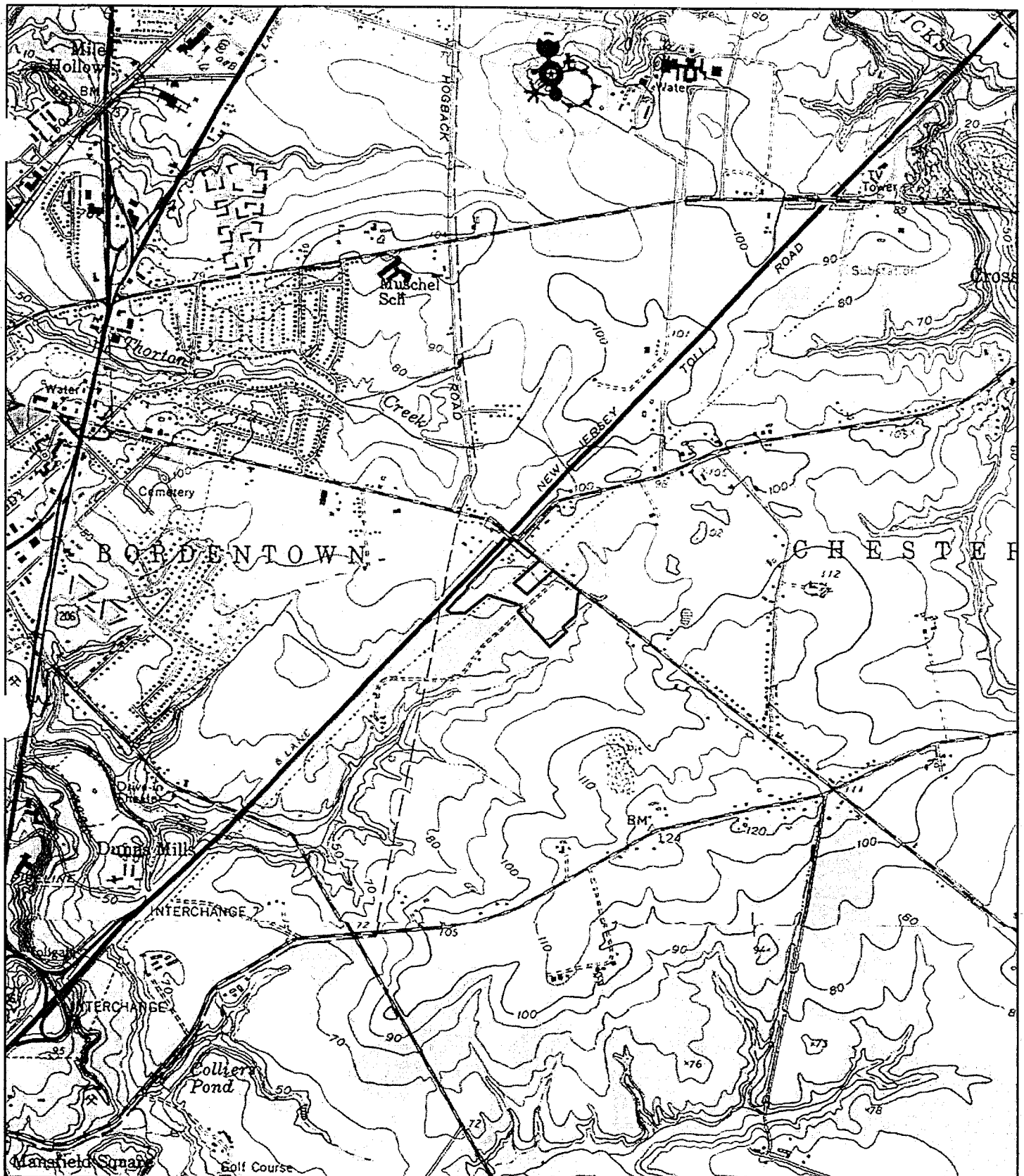
Since the proposed Project will be situated within and only involve property owned by Transco, there will be no impacts on any Green Acres properties within 0.25 miles of the Project. Additionally, at Station 203 while adjacent undeveloped properties are deeded as Green Acres, the construction and operation of the Station 203, Chesterfield M&R, communication tower, associated buildings, and electrical substation will not impact or interfere with the conservation status of these properties.

4.8.2 Native American Properties

Transco has consulted with the NJHPO and Native American Tribes (Tribal Historic Preservation Office (THPO)) to identify any potential impacts to federally recognized Native American properties or sensitive areas within or adjacent to the Project areas. To date consultation with these entities has not identified any concerns or Native American properties. The properties proposed for the Project activities are privately owned.

4.8.3 Coastal Zone Management Areas

The coastal boundary of New Jersey encompasses the Coastal Area Facility Review Act (CAFRA) area and the New Jersey Meadowlands District (NJMD). The coastal area includes coastal waters to the limit of tidal influence including: the Atlantic Ocean (to the limit of NJ's seaward jurisdiction); Upper New York Bay, Newark Bay, Raritan Bay and the Arthur Kill; the Hudson, Raritan, Passaic, and Hackensack Rivers, and the tidal portions of the tributaries to these bays and rivers. The Delaware River and Bay and other tidal streams of the Coastal Plain are also in the coastal area, as is a narrow band of adjacent uplands in the Waterfront Development area beyond the CAFRA area. The Project is not located within a CAFRA area, the NJMD, or the Waterfront Development area and will not have any impact on coastal zones. Therefore, no action is required under the Coastal Zone Management Act (CZMA).



Map Location

Legend

Site Boundary

0 500 1,000 2,000
Feet



Transcontinental Gas
Pipe Line Company
Garden State Expansion

Station 203 and
Chesterfield Meter Station
Chesterfield Township, New Jersey

USGS Site Location Map

AECOM



125 Rock Road
Horsham, PA 19044
Phone: 215.315.4150

Figure 1

July 2015

Project #: 60328910



<p>Map Location</p> 	<p>Legend</p> <p> Site boundary</p> <p>0 250 500 1,000 Feet</p> <p>Scale: 1:12,000 (1 inch = 1000 ft)</p>	<p>Transcontinental Gas Pipe Line Company Garden State Expansion</p> <p>Compressor Station 203 and Chesterfield Meter Station Chesterfield Township, New Jersey</p> <p>NJDEP Wetlands Map</p>	<p>AECOM 125 Rock Road Horsham, PA 19044 Phone: 215.315.4150</p> <p>Figure 4</p> <p>July 2015</p> <p>Project #: 60310820</p>
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