

- Underground collection between Access Road 27 and Access Road 26, along State Route 39.

The collection line between Clusters 24 and 25 is sited through a small portion of forested area, along the straightest route possible, while the majority of the alignment traverses through pasture land to minimize impacts to forest. Within the pasture, emergent Wetlands SVC126-W561 and associated perennial Stream SVC126-S561; emergent Wetland SVC122-W563; and emergent Wetland SVC122-W564 and associated ephemeral Stream SVC122-S564 will be temporarily impacted by the construction ROW required for the installation of the underground collection line via trenching. The wetlands and stream bed and banks will be restored to preconstruction contours following construction.

The collection line between Cluster 25 and the substation will cross perennial Stream SVC204-S577, which will be temporarily impacted by the construction ROW required for the installation of the underground collection line via trenching. Stream bed and banks will be restored to preconstruction contours following construction. This stream is also crossed downstream by Cluster 25 (impacts associated with the Access Road 25 crossing were previously discussed in Section 2.6.5.2).

The collection line between Clusters 25 and 26 is sited through a forested area, but along the straightest route possible to minimize forest impacts and avoid impacts to Wetlands SVC112-W571 and SVC112-W572. Emergent/forested Wetland SVC109-W569 will be temporarily impacted by the construction ROW required for installation of the underground collection line via trenching. Impacts could not be avoided because the wetland extends east and west beyond the survey corridor. Forest conversion will occur in this wetland due to the installation and maintenance of the collection line. The wetland will be restored to preconstruction contours following construction and will be maintained in an emergent/shrub-scrub condition.

Underground collection between Access Road 27 and Access Road 26 was sited along the south side of State Route 39 to minimize impacts to the extent possible. However, emergent/shrub-scrub Wetland SVC103-W542 will be temporarily impacted by the construction ROW required for the installation of the underground collection line via trenching along State Route 39. The wetland will be restored to preconstruction contours following construction.

2.7 Transmission Detail

Sections 2.7.1, 2.7.2, and 2.7.3 include discussions of and details of wetland and waterbody impacts for the Transmission portion of the Project, including the substation and switchyard. A detailed list of impacts to areas subject to federal jurisdiction within the Transmission portion is provided in Table 2-10.

Table 2-10 Summary of Delineated Wetland Impacts, Ball Hill Windpark Transmission

Wetland ID	Wetland Community Type	Hydrologic Connection	Watershed	Location Relative to Associated Stream Reach (Adjacent or Abutting) ¹	Facility Type	Isolated Wetland Area within 100-foot Permanent Transmission ROW (acres) ³	Isolated Wetland Area (acres) within 30-foot wide Temporary Travel Corridor (acres)	Federally Jurisdictional Area within 100-foot Permanent Transmission ROW (acres) ^{2, 3, 7}	Federally Jurisdictional Area within 30-foot-wide Temporary Travel Corridor (acres) ^{4, 7}	Federally Jurisdictional Area Permanently Filled (acres) ⁵	Federally Jurisdictional Area to be Converted from Forest to Shrub/Scrub Emergent due to 100 foot ROW (acres) ⁶	Federally Jurisdictional Forested Wetland to be Permanently Filled (acres)	Comments and Justification for Unavoidable Impacts	Appendix J Wetland Map Sheet
Sector F Transmission line														
Ball Hill Substation to Empire Road														
TUC8-W109	PEM	Unnamed tributary to Tupper Creek	TUC8	Adjacent with Surface Connection	Overhead Transmission Line	NA	NA	0.21530	0.00286	NA	NA	NA	Overhead Transmission will not impact wetland TUC8-W109. To avoid impacts, mats will be used to cross the	F-1
TUC6-W108	PEM	Unnamed tributary to Tupper Creek	TUC6 and WNC35	Abutting	Overhead Transmission Line	NA	NA	0.25069	0.05836	NA	NA	NA	Overhead Transmission will not impact wetland TUC6-W108. To avoid impacts, mats will be used to cross the wetland.	F-1
TUC25-W125	PFO	Unnamed tributary to Walnut Creek	TUC25	Adjacent with Surface Connection	Overhead Transmission Line	NA	NA	0.45330	0.15363	NA	0.45330	NA	Impacts to WNC64-W125 are limited to permanent forest conversion. To avoid additional impacts, mats will be used to cross the wetland.	F-2
TUC25-W127	PEM in forested area.	Unnamed tributary to Walnut Creek	TUC25	Adjacent with Surface Connection	Overhead Transmission Line	NA	NA	0.00276	NA	NA	NA	NA	A portion of WNC64-W127 is located within the permanent transmission corridor; however, overhead Transmission will not impact wetland WNC64-W127.	F-2
TUC25-W107	PEM/PSS	Unnamed tributary to Walnut Creek	TUC25 and WNC92	Adjacent without surface connection	Overhead Transmission Line	0.42997	0.13248	NA	NA	NA	NA	NA	Overhead Transmission will not impact wetland WNC64-W107. To avoid impacts, mats will be used to cross the wetland.	F-2
WNC59-W105	PEM	Unnamed tributary to Walnut Creek	WNC59	Adjacent with Surface Connection	Overhead Transmission Line	NA	NA	0.42284	0.11899	NA	NA	NA	Overhead Transmission will not impact wetland WNC59-W105. To avoid impacts, mats will be used to cross the wetland.	F-3
WNC59-W106	PEM	Unnamed tributary to Walnut Creek	WNC59	Adjacent with Surface Connection	Overhead Transmission Line	NA	NA	0.08615	0.03332	NA	NA	NA	Overhead Transmission will not impact wetland WNC59-W106. To avoid impacts, mats will be used to cross the wetland.	F-3
WNC59-W607	PEM in forested area.	Unnamed tributary of Walnut Creek	WNC59, WNC87 and WNC92	Abutting	Overhead Transmission Line	NA	NA	0.99838	0.28132	0.0010	NA	NA	Overhead Transmission will include placement of two pole structures. To avoid additional impacts, mats will be used to cross the wetland.	F-3
WNC87-W606	PEM/PSS	Unnamed tributary to Walnut Creek	WNC87	Adjacent with Surface Connection	Overhead Transmission Line	NA	NA	0.73957	0.22216	NA	NA	NA	Overhead Transmission will not impact wetland WNC87-W606. To avoid impacts, mats will be used to cross the wetland.	F-4
Empire Road to Hopper Road														
WNC88-W73	PEM/PSS	Unnamed tributary to Walnut Creek	WNC88	Adjacent with Surface Connection	Overhead Transmission Line	NA	NA	0.04794	0.00749	NA	NA	NA	Overhead Transmission will not impact wetland WNC88-W73. To avoid impacts, mats will be used to cross the	F-4
WNC88-W72	PEM	Unnamed tributary to Walnut Creek	WNC88	Adjacent with Surface Connection	Overhead Transmission Line	NA	NA	0.05559	0.01786	NA	NA	NA	Overhead Transmission will not impact wetland WNC88-W72. To avoid impacts, mats will be used to cross the	F-4
WNC88-W71	PEM	Unnamed tributary to Walnut Creek	WNC88 and WNC89	Adjacent with Surface Connection	Overhead Transmission Line	NA	NA	0.00733	NA	NA	NA	NA	A portion of WNC88-W71 is within the permanent transmission corridor; however, overhead transmission will not impact wetland WNC88-W71.	F-4
WNC91-W70	PEM in forested area.	Unnamed tributary to Walnut Creek	WNC91	Adjacent with Surface Connection	Overhead Transmission Line	NA	NA	0.08144	0.02816	NA	NA	NA	Overhead Transmission will not impact wetland WNC91-W70. To avoid impacts, mats will be used to cross the wetland.	F-5
WNC91-W69	PSS	Unnamed tributary to Walnut Creek	WNC89 and WNC 91	Adjacent with Surface Connection	Overhead Transmission Line	NA	NA	0.53514	0.13528	NA	NA	NA	Overhead Transmission will not impact wetland WNC91-W69. To avoid impacts, mats will be used to cross the wetland.	F-5
WNC91-W68	PSS/PFO	Unnamed tributary to Walnut Creek	WNC89 and WNC 91	Adjacent with Surface Connection	Overhead Transmission Line	NA	NA	0.09620	0.04728	NA	0.09620	NA	Impacts to WNC91-W68 are limited to permanent forest conversion. To avoid additional impacts, mats will be used to cross the wetland.	F-5
WNC89-W67	PFO	Unnamed tributary to Walnut Creek	WNC89	Adjacent with Surface Connection	Overhead Transmission Line	NA	NA	0.11294	0.04642	NA	0.11294	NA	Impacts to WNC89-W67 are limited to permanent forest conversion. To avoid additional impacts, mats will be used to cross the wetland.	F-5
WNC50-W66	PSS	Unnamed tributary to Walnut Creek	WNC50, WNC84 and WNC 86	Adjacent without surface connection	Overhead Transmission Line	0.01015	0.00043	NA	NA	NA	NA	NA	Overhead Transmission will not impact wetland WNC50-W66. To avoid impacts, mats will be used to cross the wetland.	F-6

Table 2-10 Summary of Delineated Wetland Impacts, Ball Hill Windpark Transmission

Wetland ID	Wetland Community Type	Hydrologic Connection	Watershed	Location Relative to Associated Stream Reach (Adjacent or Abutting) ¹	Facility Type	Isolated Wetland Area within 100-foot Permanent Transmission ROW (acres) ³	Isolated Wetland Area (acres) within 30-foot wide Temporary Travel Corridor (acres)	Federally Jurisdictional Area within 100-foot Permanent Transmission ROW (acres) ^{2, 3, 7}	Federally Jurisdictional Area within 30-foot-wide Temporary Travel Corridor (acres) ^{4, 7}	Federally Jurisdictional Area Permanently Filled (acres) ⁵	Federally Jurisdictional Area to be Converted from Forest to Shrub/Scrub Emergent due to 100 foot ROW (acres) ⁶	Federally Jurisdictional Forested Wetland to be Permanently Filled (acres)	Comments and Justification for Unavoidable Impacts	Appendix J Wetland Map Sheet
Hopper Road to Dennison Road														
WNC47-W103	PEM/PSS	Unnamed tributary to Walnut Creek	WNC47	Adjacent with Surface Connection	Overhead Transmission Line	NA	NA	0.00010	NA	NA	NA	NA	A portion of WNC47-W103 is within the permanent transmission corridor; however, overhead Transmission will not impact wetland WNC47-W103.	F-7
WNC43-W104	PEM	Unnamed tributary to Walnut Creek	WNC 30, WNC 32, WNC 33, WNC 37, WNC38 and WNC 43	Adjacent with Surface Connection	Overhead Transmission Line	NA	NA	2.98812	0.76755	NA	NA	NA	Overhead Transmission will not impact wetland WNC43-W104. To avoid impacts, mats will be used to cross the wetland.	F-7 and F-8
WNC106-W52	PFO	Unnamed tributary to Walnut Creek	WNC106	Adjacent with Surface Connection	Overhead Transmission Line	NA	NA	0.01316	NA	NA	0.01316	NA	Impacts to WNC106-W52 are limited to permanent forest conversion. To avoid additional impacts, mats will be used to cross the wetland.	F-10
WNC106-W53	PFO	Unnamed tributary to Walnut Creek	WNC106	Adjacent with Surface Connection	Overhead Transmission Line	NA	NA	0.08007	0.01982	0.00050	0.08007	0.0005	Temporary impacts to WNC106-W53 are limited to permanent forest conversion. WNC106-W53 will be permanently impacted by the placement of one pole for overhead transmission.	F-10
WNC103-W54	PEM/PSS	Unnamed tributary to Walnut Creek	WNC103	Abutting	Overhead Transmission Line	NA	NA	0.84343	0.23833	NA	NA	NA	Overhead Transmission will not impact wetland WNC103-W54. To avoid impacts, mats will be used to cross the wetland.	F-11 and F-12
Dennison Road to the Switchyard														
WNC103-W56	PEM/PSS	Unnamed tributary to Walnut Creek	WNC103	Abutting	Overhead Transmission Line	NA	NA	0.25041	0.08204	NA	NA	NA	Overhead Transmission will not impact wetland WNC103-W56. To avoid impacts, mats will be used to cross the wetland.	F-12
WNC103-W57 ⁷	PEM	Unnamed tributary to Walnut Creek	WNC103	Abutting	Overhead Transmission Line	NA	NA	0.16	0.05	NA	NA	NA	Overhead Transmission will not impact wetland WNC103-W57. To avoid impacts, mats will be used to cross the wetland.	F-12 and F-13
SVC21-W58	PSS/PFO	Unnamed tributary to Silver Creek	SVC21/ SVC22/ WNC101	Adjacent with Surface Connection	Overhead Transmission Line	NA	NA	0.22789	0.06117	NA	0.22789	NA	Impacts to SVC21-W58 are limited to permanent forest conversion. To avoid additional impacts, mats will be used to cross the wetland.	F-13
SVC22-W59	PSS	Unnamed tributary to Silver Creek	SVC22	Adjacent with Surface Connection	Overhead Transmission Line	NA	NA	0.03190	NA	NA	NA	NA	A portion of SVC22-W59 is located within the permanent transmission corridor; however, overhead transmission will not impact wetland SVC22-W59.	F-13
SVC22-W60	PEM/PSS/PFO	Unnamed tributary to Silver Creek	SVC22/ SVC23	Adjacent with Surface Connection	Overhead Transmission Line	NA	NA	0.80625	0.21188	NA	0.80625	NA	Impacts to SVC22-W60 are limited to permanent forest conversion. To avoid additional impacts, mats will be used to cross the wetland.	F-13
SVC23-W61*	PEM/PSS/PFO	Unnamed tributary to Silver Creek	SVC23 and SVC18	Abutting	Overhead Transmission Line	NA	NA	0.39446	0.13816	NA	0.39446	NA	Impacts to SVC23-W61 are limited to permanent forest conversion. To avoid additional impacts, mats will be used to cross the wetland.	F-13
SVC23-W63*	PEM	Unnamed tributary to Silver Creek	SVC23 and SVC18	Adjacent with Surface Connection	Overhead Transmission Line	NA	NA	0.20599	0.08963	NA	NA	NA	Overhead Transmission will not impact wetland SVC23-W63. To avoid impacts, mats will be used to cross the wetland.	F-14
SVC23-W64*	PFO	Unnamed tributary to Silver Creek	SVC23	Adjacent with Surface Connection	Overhead Transmission Line	NA	NA	0.00400	0.000002	NA	0.00400	NA	Impacts to SVC23-W64 are limited to permanent forest conversion. To avoid additional impacts, mats will be used to cross the wetland.	F-14
SVC23-W65*	PSS/PFO	Unnamed tributary to Silver Creek	SVC23 and SVC18	Adjacent with Surface Connection	Overhead Transmission Line	NA	NA	0.54048	0.19111	NA	0.54048	NA	Impacts to SVC23-W65 are limited to permanent forest conversion. To avoid additional impacts, mats will be used to cross the wetland.	F-14 and F-15
SVC18-W110* ⁸	PEM/PFO 1/4	No apparent surface water connection to traditional navigable waters.	SVC18	Adjacent without surface connection	Overhead Transmission Line	0.83681	0.25846	NA	NA	NA	0.83681	NA	Impacts to SVC18-W110 are limited to permanent forest conversion. To avoid additional impacts, mats will be used to cross the wetland.	F-15

Table 2-10 Summary of Delineated Wetland Impacts, Ball Hill Windpark Transmission

Wetland ID	Wetland Community Type	Hydrologic Connection	Watershed	Location Relative to Associated Stream Reach (Adjacent or Abutting) ¹	Facility Type	Isolated Wetland Area within 100-foot Permanent Transmission ROW (acres) ³	Isolated Wetland Area (acres) within 30-foot wide Temporary Travel Corridor (acres)	Federally Jurisdictional Area within 100-foot Permanent Transmission ROW (acres) ^{2, 3, 7}	Federally Jurisdictional Area within 30-foot-wide Temporary Travel Corridor (acres) ^{4, 7}	Federally Jurisdictional Area Permanently Filled (acres) ⁵	Federally Jurisdictional Area to be Converted from Forest to Shrub/Scrub Emergent due to 100 foot ROW (acres) ⁶	Federally Jurisdictional Forested Wetland to be Permanently Filled (acres)	Comments and Justification for Unavoidable Impacts	Appendix J Wetland Map Sheet
SVC16-W111*	PFO	Unnamed tributary to Silver Creek	SVC16/SVC12/SVC21	Adjacent with Surface Connection	Overhead Transmission Line	NA	NA	1.09715	0.36464	0.0005	1.09715	0.0005	Impacts to SVC10-W111 include permanent forest conversion and placement of a pole structure. To avoid additional impacts, mats will be used to cross the wetland.	F-15
Total						1.2769	0.3914	11.7449	3.3649	0.0020	4.6627	0.0010		

Notes:

* NYSDEC jurisdictional wetland based on September 8, 2008 NYSDEC field visit.

** Acreage of Permanent Forest Conversion is less than acreage of Construction Disturbance because the area disturbed is PEM as well as PFO. Only the PFO acreage was reported for Permanent Forest Conversion.

*** Acreage of Forested Wetland to be Permanently filled is less than the acreage of Permanent Impact because the area of Permanent Impact is PEM as well as PFO. Only the PFO acreage was reported for Forested Wetland to be Permanently filled.

¹ A wetland is considered adjacent to a stream reach if it is located near the stream reach but does not form a contiguous connection with it. An adjacent wetland may or may not have a surface connection to the stream reach via a drain feature. A wetland is considered to be abutting a stream reach if it is bordered by and therefore contiguous with the stream reach. If a stream reach flows through a wetland, the wetland is considered abutting.

² Construction disturbance includes all areas to be disturbed during construction activities, as such, they include all impact related to clearing, grading and placement of poles for overhead transmission, placement of wetland mats and placement of fill. For the generation portion of the Project, this includes the acreage of all wetlands that fall within the construction ROW. For the transmission portion of the Project, this includes the acreage of all wetlands that fall within the 100 foot wide permanent ROW.

³ For the purposes of this discussion, Permanent impacts for both the generation portion and transmission portion of the project refer to permanent placement of fill within wetlands that results in a loss of wetland acreage. Placement of fill includes placement of gravel fill for permanent roadways, and placement of poles for overhead transmission lines. It is fully understood that loss of forest cover is a long term impact as well, this is described as forest conversion in order to separate fill impacts from loss of function associated with forest cover loss. Fill for overhead transmission results from placement of poles.

⁴ For the purposes of this table wetlands determined to be isolated during field delineations have impacts reported separately from those determined to have surface water connections; however, Noble is seeking a preliminary jurisdictional determination from the USACE and therefore considers all wetlands to be federally jurisdictional regardless of surface connection. Final jurisdictional determination will be made by USACE subsequent to field verification.

⁵ Temporary impacts for the generation portion of the Project are defined as wetland impacts associated with filling or excavation activities where the Project Site will be restored to preconstruction contours and elevation; therefore, the temporary nature of these impacts relates to grading and placement of fill and does not take the loss of forest cover into consideration. Wetland mats will be used to avoid federally jurisdictional impacts within the 30 foot travel corridor and pole staging areas for transmission, therefore no temporary federal impacts are reported for the transmission line.

⁶ Permanent forest conversion is used to indicate the permanent loss of forest cover in wetlands associated with removal of vegetation, and which will be maintained in a shrub/scrub or emergent condition during operation of Project facilities. It is determined by adding the forested wetland portion of wetland acreages reported for clearing and the forested wetland portion of the wetland acreages reported as temporary impact. It is the total forested wetland that will be permanent converted to herbaceous or shrub scrub communities. While conversion is recognized as a long term impact, it is distinguished from permanent impacts associated with fill to facilitate review and permitting of the Project. For the generation portion of the Project, this includes the acreages of all the forested wetlands within the construction ROW that will not be permanently filled. Permanent conversion within the transmission portion of the Project includes all forested wetlands within the permanent ROW that will be permanently maintained to prevent reestablishment of trees.

⁷ Access constraint prevented the wetland from being mapped; reported wetland acreages are based on boundary estimates made from adjacent parcels where access was obtained. Wetland boundaries and acreages will be determined subsequent to obtaining parcel access.

⁸ Wetland W110 has no apparent surface connection to waters of the U.S.; however, Wetland W110 is under state jurisdiction as the NYSDEC claimed jurisdiction based on a functional connection to NYSDEC wetland SC-12.

2.7.1 Substation

The substation and associated access road are located entirely within an active cow pasture. No wetlands or waterbodies were identified within the 200-foot by 300-foot footprint of the substation. As such, construction of the substation will not result in impacts to wetlands or waterbodies.

2.7.2 Transmission

For transmission line construction, operation and maintenance of a 100-foot transmission ROW will be secured by Noble. Any wetlands identified in this transmission ROW will be crossed by the overhead transmission line. As part of construction, wetland vegetation will be cleared to the extent necessary to assure safe installation (and subsequent operation) of the transmission line. All wetland vegetation is assumed to be cleared and is accounted for in the acreage of cleared wetland reported in Table 2-5. Forested wetlands that will be subject to clearing are a subset of the cleared acreage reported in this table. Within forested wetlands, the establishment of a cleared 100-foot ROW for construction and operation will result in long-term permanent conversion of the forested wetland to non-forested cover types (emergent or shrub-scrub). As part of the clearing activities, all trees and large shrubby material will be removed from the ROW. All clearing will be accomplished utilizing lop-and-drop hand clearing techniques.

To provide equipment access to the pole locations through wetlands, a 30-foot equipment travel corridor adjacent to the transmission ROW centerline will be established. Equipment travel within the permanent transmission ROW will be restricted to this 30-foot equipment travel corridor adjacent to the transmission line in wetlands only. Outside of wetlands, construction may utilize additional upland areas within the permanent transmission ROW. Rather than importing fill to provide a safe working surface, wetland mats will be utilized to minimize impacts along the travel corridor, and all travel will be restricted to these mats within wetlands. Stumps within the 30-foot travel corridor will be ground to the surface, and will not be pulled. Where stream crossings are required along the travel corridor, wetland mats will be used as temporary bridges and temporary culverts will be used, as appropriate, to minimize impacts.

Pole installation typically requires the use of a 70-foot by 100-foot temporary workspace or staging area; this staging area will be reduced to 70 feet by 30 feet in or adjacent to wetlands and waterbodies, the minimum area required to safely install the poles. No poles are proposed to be placed in waterbodies. These areas will overlap with the temporary travel corridor to the extent possible to minimize wetland impacts. In the isolated cases where poles need to be located within wetlands, wetland mats will be used for construction equipment access to minimize impacts from installation. Permanent impacts will be restricted to the actual installation of poles, and the pole footprint, within wetlands. All areas surrounding the pole that experience ground disturbance, will be restored to pre-construction contours, and will be maintained as emergent or scrub/shrub wetlands.

2. Environmental Setting and Impacts

Although access will be required through wetland areas for installation of the transmission line, the use of wetland mats will avoid significant ground disturbance. As such, these are not reported as temporary impacts with respect to federally jurisdictional wetlands. Additionally, forest conversion associated with clearing, with no associated ground disturbance, is not considered permanent forest conversion with respect to federally jurisdictional wetlands. However, NYSDEC considers the use of wetland mats and ground disturbance associated with pole installation as temporary impact and forest conversion associated with clearing as permanent forest conversion and these impacts are reported in Section 2.4, State Jurisdictional Wetlands, Impacts and Mitigation Summary. For the purpose of discussion, impacts in this section are reported as temporary with respect to the use of wetland mats and permanent with respect to pole placement. Permanent forest conversion is reported for all areas where tree removal is required, associated with clearing and ground disturbance.

To better present the anticipated impacts from the construction of the transmission line, the route of the transmission line has been divided into four sections, with public roads providing logical section breaks. Each of these four segments are discussed below. These divisions are for the sole purpose of organizing work flow and discussion and do not imply any separation of facilities. Photos of the wetlands and streams discussed can be found in Appendix F of the Wetland and Waterbodies Report (included in the DEIS in Appendix D).

Ball Hill Substation to Empire Road

From the substation, the transmission line runs west and then north along the west edge of an active pasture to minimize impacts to the landowner's property. At the north end of the pasture, the transmission line continues northwest through successional hardwood forest. A northwest route was not taken directly to Empire Road due to property owner constraints; as such, the route turns to the north then the west to avoid a non-participating landowner before reaching Empire Road.

Eight wetlands (Wetlands TUC8-W109, TUC6-W108, TUC25-W125, TUC25-W127, TUC25-W107, WNC59-W106, WNC59-W105, WNC59-W607, WNC87-W606) and three streams (Streams TUC6-S108, WNC92-S607a, and WNC87-S607) will be crossed by overhead transmission in this portion of the transmission ROW and will be temporarily impacted due to the permanent transmission ROW required for construction and operation of the transmission line.

Wetland TUC8-W109 is a moderate size emergent/shrub-scrub wetland; however, the western portion within the temporary travel corridor is emergent wetland in an active pasture. Wetland mats will be used to minimize temporary impacts associated with equipment crossing through the wetland. Wetland TUC6-W108 is a moderate-size emergent, riparian wetland within the banks of perennial Class C Stream TUC6-S108. Wetland mats will be used to minimize temporary impacts associated with equipment crossing through the wetland and stream. Wetland TUC25-W125 is a moderate-size forested wetland whose impacts could not be avoided due to access constraints. Clearing of forested vegetation is necessary for

2. Environmental Setting and Impacts

equipment access and construction and operation of the transmission line; therefore, Wetland TUC25-W125 will be subject to permanent forest conversion. Vegetation removal will be accomplished through hand clearing and stumps will be ground to the surface where necessary for safe access and will not be pulled or dragged. Wetland mats will be used to minimize temporary impacts associated with equipment crossing through the wetland. Wetland TUC25-W127 is an emergent wetland in upland forest; however, it will not be impacted by the temporary travel corridor.

After initial field delineations, the transmission line north of Wetland TUC25-W127 was re-aligned slightly to the west to cross Wetlands TUC25-W107, WNC59-W106, WNC59-W105 (emergent shrub/scrub wetlands) at their narrowest portions. Wetland mats will be used to minimize temporary impacts associated with equipment crossing through these wetlands.

North of Wetland WNC59-W105, the transmission line turns west toward Empire Road. Within this section the transmission line will cross Wetlands WNC59-W607 and WNC87-W606 and Streams WNC92-S607a and WNC87-S607. Wetland WNC59-W607 is a large emergent wetland in a forested area associated with two streams (Streams WNC92-S607a and WNC87-S607). The wetland will be temporarily impacted by the travel corridor and permanently impacted by the placement of two utility poles (Poles 55 and 56) within the boundaries of the wetland. Wetland WNC87-W606 is a large emergent shrub-scrub wetland that connects to Wetland WNC59-W607 north of the survey corridor. Streams WNC92-S607a and WNC87-S607 are perennial Class C streams that are tributary to Walnut Creek. These wetlands and streams will be crossed using wetland mats; therefore, no permanent impacts associated with the travel corridor are expected. Stream disturbance resulting from the installation of the mats and temporary culverts (if necessary) will take place during low-flow or dry conditions, if possible, and BMPs will be employed to minimize temporary impacts.

Empire Road to Hopper Road

From Empire Road, the permanent transmission ROW continues west through reverting fields to a successional hardwood forest. At the forest edge, the ROW turns northwest, following a cleared snowmobile path through the forest until the ROW turns north, crossing an agricultural field on the south side of Route 39. This alignment was chosen to follow the existing snowmobile trail to the extent possible, to minimize forest impacts. The ROW continues north across Route 39, traversing reverting fields to Hopper Road.

Eight wetlands (Wetlands WNC88-W73, WNC88-W72, WNC88-71, WNC91-W70, WNC91-W69, WNC91-W68, WNC89-W67, and WNC50-W66) will be crossed by overhead transmission in this portion of the transmission ROW and will be temporarily impacted due to the permanent transmission ROW required for construction and operation of the transmission line. There are no streams in this portion of the ROW. All of the overhead poles within this section have been effectively located outside of wetlands.

Wetlands WNC88-W73 and WNC88-W71 are small, emergent/shrub-scrub wetlands associated with natural depressions in a reverting field. Wetland WNC88-W71 will not be impacted by the temporary travel corridor. Wetland WNC88-W72 is an emergent wetland associated with a broad drainage swale which extends north beyond the survey corridor. Wetland WNC91-W70 is a small emergent wetland associated with inundated ruts along an ATV trail through a forested area. The wetland drains north and west into Wetland WNC91-W69, a shrub-scrub wetland within a forested area, via drains D69 and D69A. Wetland mats will be used to minimize temporary impacts associated with equipment crossing through Wetlands WNC88-W73, WNC88-W72, WNC91-W70 and WNC91-W69.

Wetland WNC91-W68 is a small shrub-scrub/forested wetland and Wetland WNC91-W67 is a large forested wetland. Impacts to Wetland WNC91-W68 will be limited to the eastern boundary of the wetland. After initial field delineations, the transmission ROW was realigned to cross WNC91-W67 at its narrowest portions to minimize impacts to the extent possible. Clearing of forested vegetation is necessary for equipment access and construction and operation of the transmission line; therefore, Wetlands WNC91-W68 and WNC91-W67 will both be subject to permanent forest conversion. Vegetation removal will be accomplished through hand clearing and stumps will be ground to the surface where necessary for safe access and will not be pulled or dragged. Wetland mats will be used to minimize temporary impacts associated with equipment crossing through these wetlands.

Wetland WNC50-W66 consists of two shrub-scrub wetland areas connected by Drain D66. The travel corridor will primarily cross the drain and will only cross a very small portion of the wetland. Wetland mats will be used to minimize temporary impacts associated with equipment crossing through these wetlands.

Hopper Road to Dennison Road

North of Hopper Road, the ROW continues north across an active pasture and then primarily follows an existing gas well access road through upland forest to an agricultural field. The ROW then continues north through upland forest before turning northwest through a reverting field to Dennison Road. Five wetlands (Wetlands WNC47-W103, WNC43-W104, WNC106-W52, WNC106-W53 and WNC103-W54) and eight streams (WNC47-S103, WNC43-S104, WNC30-S50, WNC47-S2000, WNC28-S1014, WNC28-S1014a, WNC103-S54, and WNC103-S54a) will be crossed by the permanent transmission ROW in this portion of the transmission line and will be temporarily impacted due to the permanent transmission ROW required for construction and operation of the transmission line. Permanent impacts will be restricted to the placement of a single pole (Pole No. 26) within Wetland WNC106-W53. For the remainder of the transmission line, poles will be set back a minimum of 50 feet from wetland edges or the top of bank of these streams to the extent practicable.

2. Environmental Setting and Impacts

A small portion of the western edge of emergent/scrub-shrub Wetland WNC47-W103 is within the transmission ROW; however, it will not be crossed by the temporary travel corridor. The ROW then crosses two Class C tributaries to Walnut Creek: perennial Stream WNC47-S103 and intermittent Stream WNC47-S2000. Wetland mats and temporary culverts will be used as temporary bridges for equipment crossing during construction resulting in temporary, but no permanent impacts to the stream bed and banks. Poles will be located further than 50 feet from the banks of both of these streams.

Wetland WNC43-W104 is a large emergent wetland that is associated with drainage through an existing gas well access road. While the main source of hydrology for this wetland appears to be flow along the road, there are several sections where the wetland expands across the survey corridor through depressional areas of upland forest. The transmission ROW alignment was chosen to minimize forest impacts by collocating the transmission line with a previously cleared access road through a forested area. After field delineations, the transmission line was realigned west in this area to cross the wetland at its narrowest portions and minimize impacts to the extent possible. Wetland mats will be used to minimize impacts associated with equipment crossing through Wetland WNC43-W104. Intermittent Stream WNC43-S104A drains Wetland WNC43-W104 to Walnut Creek. The stream originates at a culvert under the existing access road portion of Wetland WNC43-W104. The stream will be crossed by equipment west of the culverted area via wetland mats to avoid additional crossing of Wetland WNC43-W104. Wetland mats will be used as temporary bridges for equipment crossing during construction resulting in temporary, but no permanent impacts to the stream bed and banks. Stream disturbance will take place during low-flow or dry conditions if possible and BMPs will be employed to minimize impacts.

North of Wetland WNC43-W104, the ROW crosses an agricultural field, then continues north through a forested area where it crosses perennial, Class C Stream WNC30-S50; perennial, Class C(t) Stream WNC28-S1014; and intermittent Class C(t) Stream WNC28-S1014A; all tributary to Walnut Creek. Each of these streams is crossed by the temporary travel corridor. Wetland mats and temporary culverts (as necessary) will be used as temporary bridges for equipment crossing during construction resulting in temporary, but no permanent impacts to the streams' bed and banks. There will be no grading or ground disturbance. Stream disturbance will take place during low-flow or dry conditions if possible and BMPs will be employed to minimize impacts.

Small, forested Wetland WNC106-W52 is located within the transmission ROW; however, it will not be crossed by the temporary travel corridor. Impact to Wetland WNC106-W52 will be limited to permanent forest conversion. Wetland WNC106-W53 is a moderate size wetland at the base of northwest sloping hill that will be crossed by the temporary travel corridor, will be subject to permanent impact from the placement of one pole (Pole 26) and permanent forest conversion. During the siting process, the ROW was realigned to the west to cross Wetland WNC106-W53 at the narrowest portion and minimize impacts to the extent

2. Environmental Setting and Impacts

possible; additionally, Pole 26 was located within the temporary travel corridor to minimize impact. Wetland mats will be used to minimize impacts associated with equipment crossing through Wetland WNC106-W53. Vegetation removal in both wetlands (WNC106-W52 and WNC106-W53) will be accomplished through hand clearing and stumps will be ground to the surface where necessary for safe access and will not be pulled or dragged.

North of Wetland WNC106-W53, the ROW turns northwest through a reverting field to Dennison Road. Here the ROW crosses Wetland WNC103-W54, a large shrub-scrub wetland that is associated with Streams WNC103-S54 and WNC103-S54A. The transmission line alignment was originally sited to avoid this area by crossing Dennison Road south and west of the junction with Overhiser Road. However, in evaluating potential alternative alignments, both wetland areas and access constraints were identified west of Dennison Road that prevented selection of the original alignment. During the siting process, the current layout was re-aligned to cross Wetland WNC103-W54 at its narrowest portions to minimize impacts to the extent possible. Wetland mats will be used to minimize impacts associated with equipment crossing through this wetland.

Perennial Stream WNC103-S54 and intermittent Stream WNC103-S54A are Class C(t) tributaries to Walnut Creek that will be crossed by the temporary travel corridor (Stream WNC103-S54 will be crossed in two locations). To minimize impacts, wetland mats will be used to cross these streams. There will be no grading or ground disturbance. Stream crossings will take place during low-flow or dry conditions if possible and BMPs will be employed to minimize impacts. Poles will be installed more than 50 feet from stream banks.

Dennison Road to the Switchyard

West of Dennison Road, the ROW continues northwest along the south edge of a nursery and then turns north through the nursery across King Road. North of King Road, the permanent transmission ROW crosses another small nursery parcel and then continues north primarily through reverting shrub-scrub fields. The ROW alignment then shifts northeast along the edge of a forested area to minimize impacts to the forest and NYSDEC mapped Wetland SC-13 before turning northwest through a forested area before reaching the switchyard which is sited in an active vineyard.

Eleven wetlands (Wetlands WNC103-W56, WNC103-W57, SVC21-W58, SVC22-W59, SVC22-W60, SVC23-W61, SVC23-W63, SVC23-W64, SVC23-W65, SVC18-W110, SVC16-W111) and three streams (WNC103-S56, WNC103-S56a and SVC23-S60) will be crossed by overhead transmission in this portion of the permanent transmission ROW and will be temporarily impacted due to the permanent transmission ROW required for construction and operation of the transmission line. Permanent impacts will be restricted to the placement of a single pole (Pole No. 4) within Wetland SVC16-W111.

2. Environmental Setting and Impacts

West of Dennison Road, the transmission line will cross emergent Wetland WNC103-W57, located within the floodplain of Stream WNC103-S54. This section of the stream and the majority of Wetland WNC103-W57 were not mapped due to access constraints west of Dennison Road. Based on observations from the public road and the adjacent parcel (north of the wetland, where access was available) a wetland boundary was estimated. Observations indicate that Stream WNC103-S54 flows west from a culvert under Dennison Road where it loses channelization after a short distance and reverts to overland flow forming Wetland WNC103-W57 along a natural gas pipeline ROW. The wetland continues west beyond the survey corridor ultimately draining to Stream WNC103-S56. WNC103-W57 mapping and information provided in Table 2-10, Summary of Delineated Wetland Impacts, Ball Hill Windpark Transmission, are only estimates based on these observations. Wetland delineations, and final determination of impact acreage, will be completed subsequent to obtaining parcel access. Based on boundary estimations, it is likely that this wetland will be crossed by the temporary travel corridor. Wetland mats will be used to minimize impacts associated with equipment crossing through this wetland.

North and west of Wetland WNC103-W57, emergent/shrub-scrub Wetland WNC103-W56 extends southwest from a reverting field to the banks of Stream WNC103-S56. Wetland mats will be used to minimize impacts associated with equipment crossing through Wetland WNC103-W56.

Stream WNC103-S56 and WNC103-S56A are perennial Class C(t) streams that are tributary to Walnut Creek. One utility pole (Pole 19) will be placed within 50 feet of Stream WNC103-S56 and one utility pole (Pole 18) will be placed within 50 feet of Stream WNC103-S56a due to spacing constraints required to avoid placing utility poles in wetlands and to accommodate a turn in the transmission line ROW. To minimize impacts wetland mats and temporary culverts will be used to cross these streams resulting in temporary, but no permanent impacts to stream bed and banks. There will be no grading or ground disturbance. Stream crossings will take place during low-flow or dry conditions, if possible, and BMPs will be employed to minimize impacts.

North of King Road, the permanent transmission ROW crosses a small nursery parcel before reaching Pond SVC21-PO58, a large, linear irrigation pond at the north edge of the nursery. The north and west banks of the pond have been breeched in areas and provide drainage into moderate size shrub-scrub Wetland SVC21-W58, north and west of the pond. Equipment required for pole installation (Pole 13), which is located north of the pond and Wetland SVC21-W58, and for the stringing of transmission line across the pond, will access this area from the north side of Wetland SVC21-W58. Wetland SVC21-W58 is a moderate size shrub-scrub and forested wetland whose impacts will likely be limited to permanent forest conversion. If access to SVC21-W58 is required, it will occur along the temporary travel corridor. To minimize impacts, wetland mats will be used as a temporary bridge within the travel corridor. Vegetation removal in Wetland SVC21-W58 will be accomplished through hand clearing and stumps will be

2. Environmental Setting and Impacts

ground to the surface where necessary for safe access and will not be pulled or dragged.

North of SVC21-W58, small shrub-scrub Wetland SVC22-W59 is crossed by the permanent transmission ROW; however, it will not be crossed by the temporary travel corridor. Shrub-scrub/forested Wetland SVC22-W60 is a moderate size wetland that will be crossed by the temporary travel corridor. Wetland mats will be used to minimize temporary impacts associated with equipment crossing through SVC22-W60 within the travel corridor. Clearing of forested vegetation is necessary for equipment access and construction and operation of the transmission line; therefore, Wetland SVC22-W60 will be subject to permanent forest conversion. Vegetation removal will be accomplished through hand clearing and stumps will be ground to the surface where necessary for safe access and will not be pulled or dragged.

As the transmission ROW continues north, it crosses four wetlands under NYSDEC jurisdiction due to their location within the NYSDEC mapped SC-13 boundary (SVC23-W63 and SVC23-W64) or their hydrologic connection to SC-13 (SVC23-W61 and SVC23-W65). Wetland SVC22-W61 is a moderate size wetland with emergent, shrub-scrub, and forested components. The wetland receives surface water inflow from upgradient Wetland SVC22-W60 via SVC23-S60, a perennial Class C(t) stream to Silver Creek. Wetland SVC23-W63 is a small emergent wetland associated with a natural depression in a reverting field. Wetland SVC23-W64 is a moderate size forested wetland and SVC23-W65 is a large forested wetland. The temporary travel corridor will cross through Stream SVC23-S60 and Wetlands SVC23-W61, SVC23-W63, SVC23-W65 and a very small portion of SVC23-W64. The temporary travel corridor was aligned to minimize temporary wetland impact to the extent possible. Wetland mats will be used as a temporary bridge for equipment crossing over SVC23-S60 during construction resulting in temporary, but no permanent impacts to the stream bed and banks. Stream disturbance will take place during low-flow or dry conditions if possible and BMPs will be employed to minimize impacts.

Pole configuration was adjusted to minimize permanent impacts to wetlands. As such, permanent impacts will be limited to permanent forest conversion. Staging areas for Poles 7 and 8 were reduced in size due to their proximity to wetlands and sited to minimize impact. Wetland mats will be used where staging areas overlap wetlands and along the temporary travel corridor to minimize impacts to the extent possible. Clearing of forested vegetation is necessary for equipment access and construction and operation of the transmission line; therefore, Wetlands SVC23-W61, SVC23-W64, and SVC23-W65 will be subject to permanent forest conversion. Vegetation removal will be accomplished through hand clearing and stumps will be ground to the surface where necessary for safe access and will not be pulled or dragged.

North of NYSDEC Wetland SC-13, the permanent transmission ROW continues north and then northwest through a forested area. The ROW was originally sited

southwest of the current alignment in an effort to avoid crossing NYSDEC mapped Wetland SC-12. However, access constraints prevented the preferred alignment and the complete avoidance of the wetland. As such, emergent/forested Wetland SVC18-W110 and forested Wetland SVC16-W111 will be crossed by the permanent transmission ROW and temporary travel corridor. Wetlands SVC18-W110 and SVC16-W111 are moderate and large size wetlands respectively, whose mapped boundaries are within NYSDEC mapped Wetland SC-12 and are, therefore, under NYSDEC jurisdiction. Wetland mats will be used where staging areas overlap wetlands and along the temporary travel corridor to minimize impacts to the extent possible. Clearing of forested vegetation is necessary for equipment access and construction and operation of the transmission line; therefore, both wetlands will be subject to permanent forest conversion. Vegetation removal will be accomplished through hand clearing and stumps will be ground to the surface where necessary for safe access and will not be pulled or dragged. Wetland SVC16-W111 will be permanently impacted by the placement of Pole 4; however, the staging area will be reduced to minimize impacts.

2.7.3 Switchyard

The switchyard has been sited in a currently active vineyard. No wetlands or waterbodies were identified within the 300-foot by 500-foot footprint of the switchyard or in the vicinity of this facility; as such, there will be no impacts to wetlands or waterbodies associated with the switchyard or the associated switchyard access road.

2.8 Floodplains

A query of the Federal Emergency Management Agency's (FEMA) floodplain data was performed to determine if any Project facilities were located in or immediately adjacent to mapped floodplains (see Figure 2.8-1). The majority of the Generation portion of the Project is designated as Flood Zone C. Areas designated as Flood Zone C are outside both the 100-year and 500-year floodplain and are expected to experience minimal flooding. The portion of the Project Area in the Town of Villenova is entirely considered Flood Zone C. The portion of the Project Area in the Town of Hanover has portions of Flood Zone A, or areas within the 100-year flood zone, associated with streams and wetlands.

In the Generation portion of the Project Area, one Flood Zone A area is associated with an unnamed tributary to Silver Creek (SVC116-S561) and will be crossed by overhead collection between Turbines T57 and T56. The Transmission ROW will cross four areas of Flood Zone A. One of these areas is associated with an unnamed tributary to Tupper Creek (TUC6-S108). The other three locations are associated with unnamed tributaries of Walnut Creek (WNC43-S103 and WNC30-S50) and an unnamed tributary to Silver Creek (SVC23-S60). No grading, ground disturbance, or placement of fill is anticipated within these floodplains.

