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January 28, 2014

Via Electronic Filing

Ms. Barcy McNeal
Administration/Docketing
Public Utilities Commission of Ohio
180 East Broad Street, 11th Floor
Columbus, OH 43215-3793

Re: Dominion East Ohio Gas Company
Construction Notice for Group 3 Line #12273 Project,
OPSB Case No. 14-2273-GA-BNR

Dear Ms. McNeal:

On January 6, 2014, Dominion East Ohio Company filed a Construction Notice for Group 3 Line #12273. Please find attached the following supplemental information as referenced in Section 4906-11-02(B) of the Construction Report:

- Wetlands and Other Waters Delineation Report for Group 3, Line 2888 (n/k/a Group 3 Line #12273)
- Response of the U.S. Army Corps of Engineers dated January 27, 2014 stating that there are no anticipate adverse effects to any federally endangered, threatened, proposed or candidate species.

If you have any questions please call at the number listed above.

Sincerely,

Sally W Bloomfield

Sally W. Bloomfield

Attachments

cc: Ed Steele (w/Attachments)

Wetlands and Other Waters

Delineation Report

Prepared for:

The East Ohio Gas Company
320 Springside Drive, Suite 320
Akron, Ohio 44333

for:

Base Gas Projects, Group 3, Line 2888
Jackson Township, Stark County, Ohio

Prepared by:

EnviroScience
Excellence In Any Environment
5070 Stow Rd.
Stow, OH 44224
800-940-4025
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Project No. 5342

Date: December 23, 2013

STATEMENT OF CERTIFICATION

The analyses, opinions and conclusions in this report are based entirely on EnviroScience's unbiased, professional judgment. EnviroScience's compensation is not in any way contingent on any action or event resulting from this study. Neither EnviroScience nor any EnviroScience employee has any vested interest in the property examined in this study.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF APPENDICES

EXECUTIVE SUMMARY

EnviroScience, Inc. performed a delineation of wetlands and other waters in October 2012 with an update to the delineation in December 2013 for the East Ohio Gas Company (EOG) at the location of the Base Gas Projects, Group 3, Line 2888 project in Jackson Township, Stark County, Ohio. The purpose of the project is to replace approximately 3,514 feet of existing 8-inch natural gas pipeline with 12-inch natural gas pipeline. The Base Gas Projects, Group 3, Line 2888 project is located within the existing utility right-of-way (ROW) of 50 feet (25 feet on each side of the pipeline centerline) along the existing Line 2888. The project area begins at the intersection of Weston Place Avenue NW and Strausser Street NW and continues north, ending just south of Mt. Pleasant Street NW.

The project area exists primarily as maintained ROW surrounded by upland forest. The surrounding upland land uses are residential, agricultural, and upland forest. Three distinct vegetative communities were identified within the project area, including one wetland community type. The project area crosses two intermittent streams, one perennial stream, and five wetlands.

Five wetlands were identified within the project area and account for 0.625 acres. Two intermittent streams, with ordinary high water mark (OHWM) widths of 1.1 to 8 feet and one perennial stream (Nimisila Creek) with an OHWM width of 12 feet, account for an additional 0.041 acres and 227 linear feet of waterway within the project area. No open water pond habitat exists within the project area. These wetlands, deepwater aquatic habitats and other waters are under the jurisdiction of the Ohio EPA or Corps. No filling may occur within these areas without their written permission. Please contact the Ohio EPA Division of Surface Water at (614) 644-2001 or the Huntington District, U.S. Army Corps of Engineers, at (304) 399-5210 before working in these areas.

1.0 INTRODUCTION AND SITE DESCRIPTION

EnviroScience, Inc. performed a delineation of wetlands and other waters in October 2012 with an update to the delineation in December 2013 for the East Ohio Gas Company (EOG) at the location of the Base Gas Projects, Group 3, Line 2888 project in Jackson Township, Stark County, Ohio. The purpose of the project is to replace approximately 3,514 feet of existing 8-inch natural gas pipeline with 12-inch natural gas pipeline. The Base Gas Projects, Group 3, Line 2888 project is located within the existing utility right-of-way (ROW) of 50 feet (25 feet on each side of the pipeline centerline) along the existing Line 2888. The project area begins at the intersection of Weston Place Avenue NW and Strausser Street NW and continues north, ending just south of Mt. Pleasant Street NW.

The project area exists primarily as maintained ROW surrounded by upland forest. The surrounding upland land uses are residential, agricultural, and upland forest. Three distinct vegetative communities were identified within the project area, including one wetland community type. The project area crosses two intermittent streams, one perennial stream, and five wetlands.

The project area is located in the Tuscarawas River drainage basin (Hydrologic # 05040001) which drains approximately 2,590 square miles in northeastern Ohio. It is within the Erie and Ontario Drift and Lake Plain ecoregion (Woods *et al.* 1998) of Ohio. The project area is located within the area covered by the Northcentral and Northeast Regional Supplement (USACE 2012) and associated plant list (Lichvar 2012).

2.0 METHODS

Government agencies regulate coastal and inland waters for commerce, flood control and water quality. These water bodies provide numerous functions and values necessary to protect and sustain our quality of life. Wetlands comprise a significant portion of regulated waters. The U.S. Army Corps of Engineers (Corps) and Environmental Protection Agency (EPA) jointly define wetlands as:

> "Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."

The remaining deepwater aquatic habitats (open waters) are defined by the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory, 1987) as:

> ". . . areas that are permanently inundated at mean annual water depths >6.6 ft or permanently inundated areas <6.6 ft in depth that do not support rooted emergent or woody plant species."

The methods used for determining and delineating wetlands and open waters strictly adhere to those found in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region* (USACE 2012). Wetlands and open water boundaries were determined by the disappearance of one or more of their diagnostic characteristics.

Ordinary high water marks (OHWM) defined the outermost regulatory boundaries of ephemeral and open waters.

Each sample plot and the perimeter of each wetland and other water was surveyed and marked in the field with plain pink flags and pink "wetland boundary" flags, respectively. A global positioning system (GPS) unit with submeter accuracy was used, in conjunction with aerial photography and topographic figures, for the survey. Computer Aided Design (CAD) software was used to determine wetland dimensions and produce a map of the project area showing wetlands and other waters.

2.1 WETLANDS

2.1.1 Determination

A review of secondary literature sources was performed to find known wetlands and other significant ecological resources and areas with high potential for wetlands in or near the proposed project area. Resources included some or all of the following:

1. U.S. Geological Survey (USGS) topographic maps;
2. National Wetlands Inventory (NWI) maps;
3. Web Soil Survey; and
4. Aerial Photographs.

A field inspection of the project area was then completed to identify major plant communities and to visually locate potential wetlands. The routine, onsite (Level 2) wetland determination was used to perform the delineation. Wetland communities were classified according to the classification scheme of Cowardin *et al.* (1979) (Table 1). Mature nonwetland communities that had reached a stable equilibrium were classified according to Anderson (1982) and Gordon (1966, 1969). Disturbed and successional nonwetland communities were classified as one of the categories described in Table 2.

Table 1. Wetland Communities (Cowardin *et al.* 1979)

Community	Description
PEM	Palustrine Emergent
PSS	Palustrine Scrub-Shrub
PFO	Palustrine Forested
POW	Palustrine Open Water

Table 2. Disturbed and Successional Nonwetland Communities

Community		Description
Disturbed	Urban	regularly maintained land; residential; industrial
	Agricultural	land used for producing crops or raising livestock; cropland; pastureland
	Cleared	disturbed areas devoid of most vegetation from recent clearing, grading or filling
Successional	Open Field	herbaceous community without woody vegetation
	Old Field	herbaceous community having woody vegetation coverage of <50%
	Scrub-Shrub	community dominated by woody vegetation <6 m (20 ft) tall
	Forest	community dominated by woody vegetation >6 m (20 ft) tall

Sample plots were established within each natural community and potential wetland within the study area. Complete data for each sample plot were collected and recorded on the USACE's Routine Wetland Determination Data Forms contained in the applicable USACE Regional Supplement (USACE 2012). Vegetation, hydrology and soils were evaluated at each sample plot.

2.1.1.1 Vegetation

To detect the presence or absence of hydrophytic vegetation, four plant strata were evaluated within specific radii of the plot center. Each stratum was ranked by aerial cover in descending order of abundance. Table 3 provides information on each vegetative stratum.

Table 3. Vegetative Strata

Stratum	Definition	Survey Area
Tree	woody plants > or equal to 3 in. (7.6 cm) dbh, regardless of height	30 ft (9.1 m) radius
Sapling/shrub	woody plants <3 in. (7.6 cm) dbh and ≥3.28 ft (1 m) tall	15 ft (4.6 m) radius
Herbaceous	herbs and woody plants less than 3.28 ft (1 m) in height	5 ft (1.5 m) radius
Woody vines	woody vines >3.28 ft (1 m) in height	30 ft (9.1 m) radius

Percent dominance was obtained for each species and within each stratum. Dominant species are those which cumulatively totaled in order of abundance immediately exceed 50% and also include any individual species with an abundance of 20% or more (USACE 2012). Dominant taxa were identified using recognized local guides: nomenclature follows the *National List of Scientific Plant Names* (USDA 1982). Following the identification of each plant species present within the plot, all dominant species within each stratum were assigned a wetland indicator status according to Lichvar (2012). Indicators are summarized in Table 4.

Table 4. Plant Indicators

Indicator	Category	Definition
OBL	Obligate Wetland	almost exclusively (>99% of occurrences) found in wetlands
FACW	Facultative Wetland	most likely found in wetlands (67-99% of occurrences)
FAC	Facultative	equally likely found in wetlands or nonwetlands (34-66%)
FACU	Facultative Upland	most likely found in nonwetlands (1-33% occurrence in wetlands)
UPL	Obligate Upland	almost exclusively found in nonwetlands (<1% occurrence in wetlands)

An 'NI' (no indicator) designation represents species where not enough information is available to assign an indicator; an 'NL' (no listing) designation is given to species whose identification was not determined sufficiently enough to assign an indicator. Once the indicator status is assigned to each dominant species, the evaluator can perform the percent dominance test according to the protocol outlined within the applicable Regional Supplement (USACE 2012) to determine if the plot meets the criterion for hydrophytic vegetation.

2.1.1.2 Hydrology

To detect the presence or absence of wetland hydrology, surface and subsurface hydrologic indicators were evaluated at the sample plot and throughout the adjacent community. Primary sources of wetland hydrology include direct precipitation, headwater flooding, backwater flooding, groundwater or any combination of these. When obtaining data at each sample plot, the evaluator observes evidence of hydrology. Primary indicators of hydrology (only one of these is necessary to indicate sufficient wetland hydrology) include the presence of surface water, water marks, sediment deposits, drift deposits, etc. (USACE 2012). Secondary indicators of hydrology (which requires two or more at each sample plot) include surface soil cracks, drainage patterns, crayfish burrows, etc. (USACE 2012).

2.1.1.3 Soils

The upper horizons of the soil at each sample plot were examined to detect the presence or absence of hydric soils indicators. Current USACE guidance requires the evaluator to assess the upper 20 inches of soil for hydric soil characteristics. Most indicators of hydric soils require an assessment of soil matrix color and mottle characteristics (Environmental Laboratory 1987, USACE 2012) for each horizon. These characteristics were determined by comparing a moist sample with *Munsell Soil Color Chart* (Munsell Color 2009) or *The Globe Soil Color Book* (Visual Color Systems, 2004).

2.1.2 ORAM Categorization

Each wetland system was categorized in accordance with version 5.0 of the Ohio EPA's Ohio Rapid Assessment Method for Wetlands (ORAM) (Mack 2001). Field scoring forms are contained in Appendix D

Ohio EPA has established three primary and three intermediate categories of wetland quality which are based on a wetland's size, its hydrologic function, the types of plant communities present, the physical structure of the wetland plant community and the wetland's level of disturbance (OAC 3745-1-54). The relationship between the various wetland categories and their respective ORAM scores is presented in Table 5. ES also evaluated the project area for the presence of state threatened and endangered species as part of the ORAM evaluation.

Table 5. ORAM Scores and Categories

ORAM Score	ORAM Category	Description
0-29.9	Category 1	Lowest quality, and are generally characterized by hydrological isolation, lack of plant species diversity, insufficient habitat availability, and limited potential to perform major wetland functions.
30-34.9	Category 1 or 2 (Gray Zone)	ORAM score is insufficient to categorize wetland. In absence of a nonrapid method such as VIBI, assign the wetland to the higher functional category (Category 2)
35-44.9	Modified Category 2	Category 2 wetlands that may be of lower quality or degraded but have reasonable potential to be restored.
45-59.9	Category 2	Wetlands that have the capability to support a moderate wildlife community or maintain mid-level hydrological functions.
60-64.9	Category 2 or 3 (Gray Zone)	ORAM score is insufficient to categorize wetland. In absence of a nonrapid method such as VIBI, assign the wetland to the higher functional category (Category 3)
65-100	Category 3	Highest quality, generally characterized by a high level of biological diversity and topographical variation, threatened or endangered species, large numbers of native species, or a high level of functional importance to its surroundings.

Category 3 wetlands have the highest quality, and are generally characterized by a high level of biological diversity and topographical variation, large numbers of native species, or a high level of functional importance to its surroundings. Category 2 wetlands have the capability to support a moderate wildlife community or maintain mid-level hydrological functions. Category 2 also includes wetlands that may be of lower quality or degraded but have reasonable potential to be restored (Modified Category 2). Category 1 wetlands are of the lowest quality, and are generally characterized by hydrological isolation, lack of plant species diversity, insufficient habitat availability, and limited potential to perform major wetland functions (OAC 3745-1-54).

Since the ORAM is a rapid assessment method, there are certain wetland scores which fail to clearly differentiate the wetland's functional category. The so-called "gray zone" wetlands fall between the definite scoring breaks between the categories. Ohio EPA requires that "gray zone" wetlands be considered as the higher category unless more detailed functional assessments such as the VIBI or AmphIBI are conducted on those wetlands. As a result of this requirement, wetlands whose scores fall between the breakpoints for Categories 1 and 2 (1 or 2 gray zone wetlands) wetlands will be considered as Category 2 wetland for purposes of this report. Wetlands whose scores fall between the breakpoints for Categories 2 and 3 wetlands (2 or 3 gray zone wetlands) will be considered a Category 3 wetland for purposes of this report.

2.1.4 Cowardin Wetland Classification

The USFWS National Wetlands Inventory uses the *Classification of Wetlands and Deepwater Habitats of the United States* to classify wetland habitat types (Cowardin et al 1979). This classification system is hierarchical and defines five major systems – Marine, Estuarine, Riverine, Lacustrine, and Palustrine. The Palustrine system was the only type of wetland system identified within the study area and is defined as including all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean driven-derived salts is below 0.5 percent (Cowardin et al 1979).

2.2 OTHER WATERS

Other waters include ephemeral and open waters. These waters are broken down into two categories: 1) ponds and lakes; and 2) streams and rivers.

2.2.1 Ponds and Lakes

Palustrine systems other than wetlands, and lacustrine waters are addressed as ponds and lakes, respectively. These non-linear open waters may harbor important aquatic communities such as vegetated shallows (aquatic bed) and mud flats. They are classified according to Cowardin *et al.* (1979).

2.2.2 Streams and Rivers

Riverine systems are linear flowing waters bounded by a channel. Cowardin *et al.* (1979) divides these system into four groups, however, for the purpose of this report streams are placed into three regulatory types, listed below.

Ephemeral: An ephemeral stream only conveys runoff precipitation and meltwater. It is permanently located above the water table and is most often dry.

Intermittent: An intermittent stream is located below the water table for parts of the year, but does have dry periods.

Perennial: A perennial stream typically has flowing water throughout the entire year.

In addition to flow characteristics, the USACE has defined other regulatory categories that apply to streams, which are listed below (USACE and USEPA, 2007).

Traditional Navigable Waters (TNW): all waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide.

Relatively Permanent Waters (RPW): non-navigable tributaries of traditional navigable waters that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically three months).

Non-Relatively Permanent Waters (Non-RPW): non-navigable tributaries of traditional navigable waters that are not relatively permanent where the tributaries typically do not have continuous flow at least seasonally (e.g., typically three months).

The Corps and USEPA will assert jurisdiction under the Clean Water Act on Traditional Navigable Waters (TNWs) and all wetlands adjacent to them, non-navigable tributaries of TNWs that are Relatively Permanent Waters (RPW) [i.e., tributaries that typically flow year-round or have continuous flow at least seasonally]; and wetlands that directly abut such tributaries. In addition, the agencies will assert jurisdiction over every water body that is not an RPW if that water body is determined (on the basis of a fact-specific analysis) to have a significant nexus with a TNW.

"A significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or an insubstantial effect on the chemical, physical, and/or biological, integrity of a TNW. Principal considerations when evaluating significant nexus include the volume, duration, and frequency of the flow of water in the tributary and the proximity of the tributary to a TNW, plus the hydrologic, ecologic, and other functions performed by the tributary and all of its adjacent wetlands."

2.2.3 HHEI and QHEI

Data collection for all streams included the completion of either the Ohio EPA Headwater Habitat Evaluation Index (HHEI) for primary headwater habitat (PHWH) streams or the Qualitative Habitat Evaluation Index (QHEI) for larger streams. Biologists are Ohio EPA trained to assess streams using the QHEI and HHEI. Following the Ohio EPA guidance, any stream with a drainage area of less than or equal to one mi^2 (2.589 km^2) and pools with a maximum water depths less than or equal to 15.75 in (40 cm) were evaluated using the HHEI (Ohio EPA 2002). The QHEI was used to evaluate streams with drainage areas greater than one mi^2 and pools with maximum water depths greater than 15.75 in (40 cm). The assessment location is representative of the stream/headwater within the project area.

3.0 LITERATURE REVIEW

3.1 USGS TOPOGRAPHIC MAP

The U.S. Geological Survey (USGS) 7.5-minute topographic series (North Canton quadrangle) is shown on Figure 2 (Appendix A). A lake is shown in the approximate center of the site. The land slopes towards the north with elevations ranging from approximately 1150 feet above mean sea level (AMSL) at the south end of the site to approximately 1050 feet AMSL at the northern end of the site.

3.2 NWI MAP

The National Wetlands Inventory (NWI) map (North Canton Quadrangle) of the project area is shown on Figure 3 in Appendix A. Two wetland systems are shown onsite. One of the systems is located in the center of the site where the pond is shown on the topographic map. This system is shown as a combination of a palustrine emergent wetland (PEMC) with a palustrine unconsolidated bottom wetland (PUBG), typically a pond. A large wetland is shown at the north end of the site. This wetland is classified as a palustrine scrub-shrub/emergent marsh with a seasonally flooded hydrologic regime (PSS1/EMC).

3.3 COUNTY SOIL SURVEY

The project area is found on the *Soil Survey of Stark County, Ohio* and was accessed

on the Soil Survey Geographic (SSURGO) Database (USDA Web Soil Survey, 2011) (Figure 4; Appendix A). Ten soil types are depicted within the project area and are listed in Table 4. Holly silt loam (Hl) is listed as a hydric soil, and Canfield silt loam, 2-6 percent slopes (CdB) is listed as a non-hydric soil with hydric components. All other eight soils are listed as non-hydric soils.

Table 6. Soil Types Listed within the Project Area.

Symbol	Soil Name	Status	Percent Hydric	Acres in Project Area	Percent Within Project Area
ArD	Arkport fine sandy loam, 12 to 18 percent slopes	Not Hydric	0	0.4	9.8
CdB	Canfield silt loam, 2 to 6 percent slopes	Predominantly Non-Hydric	5	0.7	16.9
CdC2	Canfield silt loam, 6 to 12 percent slopes, moderately eroded	Not Hydric	0	0.3	7.7
CoD2	Chili gravelly loam, 12 to 18 percent slopes, moderately eroded	Not Hydric	0	0.7	16.5
CoE2	Chili gravelly loam, 18 to 25 percent slopes, moderately eroded	Not Hydric	0	0.3	8.3
CpC	Chili silt loam, 6 to 12 percent slopes	Not Hydric	0	0.04	0.9
CpC2	Chili silt loam, 6 to 12 percent slopes, moderately eroded	Not Hydric	0	0.08	2.0
GfB	Glenford silt loam, 2 to 6 percent slopes	Not Hydric	0	0.7	16.8
Hl	Holly silt loam	Predominantly Hydric	95	0.5	12.7
WmB	Wheeling loam, 2 to 6 percent slopes	Not Hydric	0	0.3	8.4

3.4 U.S. Fish and Wildlife Service

The project area was examined for suitable habitat for federally listed species whose known ranges include Stark County. These species are the federally endangered Indiana bat (*Myotis sodalis*), the federally proposed endangered northern long-eared bat (*Myotis septentrionalis*), and the federal species of concern bald eagle (*Haliaeetus leucocephalus*).

Living or dead trees with shedding or peeling bark or cavities may serve as roosting trees for the Indiana bat and/or the northern long-eared bat. Thirty-four (34) potential habitat trees for Indiana bat exist within and near the project area. Potential habitat trees (PRTs) are red maple (*Acer rubrum*), shagbark hickory (*Carya ovata*), bigtooth

aspen (*Populus grandidentata*), wild black cherry (*Prunus serotina*), white oak (*Quercus alba*), shingle oak (*Quercus imbricaria*), and sassafras (*Sassafras albidum*) with diameters at breast height (dbh) of 9 to 35 inches. The PRTs had 70 to 100 percent solar exposure, peeling bark and/or crevices. Because of the size and solar exposure, ten (10) trees may be considered potential maternity roost trees (PMRTs) by the U.S. Fish and Wildlife Service (USFWS). Photographs of typical trees are located in Appendix B. If any of these trees will be cleared, coordination with USFWS is recommended. No potential winter hibernaculum is located on the site.

The bald eagle nests in large trees near water. No bald eagles or nests were observed within or adjacent to the project area. Moreover, according to the EOG Categorical Exclusion Agreement with the USFWS dated December 19, 2011, Jackson Township in Stark County has no known occurrence of bald eagle nesting sites. Therefore, no further coordination is required in regards to the bald eagle.

3.5 AERIAL PHOTOGRAPHY

A recent aerial photograph of the project area is shown on Figure 5 (Appendix A). The project area is depicted as maintained ROW surrounded by forest. The project area crosses over Southwood Drive NW and is located just east of Weston Place Avenue NW. The surrounding land uses are residential, agricultural, and forest.

4.0 RESULTS

Five sample plots were established within two natural communities. One of those communities is considered wetland. Table 5 summarizes the sample plot data.

Table 7. Sample Plot Results.

Sample Plot	Photo*	Community**	Hydrophytic Vegetation	Wetlands Hydrology	Hydric Soil	Status	Location
1	1	PEM	X	X	X	Wetland	W- 2
2	2	Forest				Nonwetland	SP 2
3	3	PEM	X	X	X	Wetland	W- 4
4	4	Forest		X		Nonwetland	SP 4
5	5	PEM	X	X	X	Wetland	W- 5

*photos are located in Appendix B
** PEM =Palustrine Emergent

Each sample plot, delineated wetlands, and other waters are illustrated on Figure 5 (Appendix A). The following section describes general conditions found within each plant community and summarizes relevant information from the data forms, located in Appendix C.

4.1 NONWETLANDS

Two upland communities exist within the project area: maintained lawn and mixed deciduous forests. The maintained lawn areas include common lawn species such as Kentucky bluegrass (*Poa pratensis*, FACU), common dandelion (*Taraxacum officinale*, FACU), white clover (*Trifolium repens*, FACU), common plantain (*Plantago major*, FACU), and ground ivy (*Glechoma hederacea*, FACU). A row of eastern white pines (*Pinus strobus*, FACU) was planted on a landscaping mound along the eastern side of the ROW in the south end of the project area.

The mixed deciduous forest community is the major upland community onsite. Sample Plots 2 and 4 were taken in this community. Typical vegetation includes shagbark hickory (*Carya ovata*, FACU), white ash (*Fraxinus americana*, FACU), red maple (*Acer rubrum*, FAC), wild black cherry (*Prunus serotina*, FACU), northern white oak (*Quercus alba*, FACU), and northern red oak (*Quercus rubra*, FACU) in the tree layer. American elm (*Ulmus americana*, FACW), northern red oak, American beech (*Fagus grandifolia*, FACU), spicebush (*Lindera benzoin*, FACW), white ash, and multiflora rose (*Rosa multiflora*, FACU) are growing in the shrub layer of the forest. Garlic mustard (*Alliara petiolata*, FACU), multiflora rose seedlings, black elder (*Sambucus nigra*, FACW) seedlings, and wild black cherry seedlings are growing in the herbaceous layer, and riverbank grape (*Vitis riparia*, FAC) is growing in the woody vine layer.

4.2 WETLANDS

Five wetlands were identified and delineated within the project area. The onsite portions of the wetland consist of palustrine emergent (PEM) vegetation. The delineated wetlands have been categorized using the Ohio Rapid Assessment Method for Wetlands v.5.0 (ORAM); scoring forms are included in Appendix D. Wetland results are given in Table 8 and are briefly described in the following section. Wetland size has been determined for areas within the project area. Wetlands are illustrated on Figure 5 (Appendix A).

Table 8. Wetland Results within the Project Area.

Wetland	Photo*	Cowardin Classification	ORAM Score	ORAM Category	Size within Project Area (acres)	Length of Wetland Crossing (feet)
W-1	6	PEM	47	2	0.500	512
W-2	7	PEM	14	1	0.036	149
W-3	8	PEM	25	1	0.044	112
W-4	9	PEM	25	1	0.038	75
W-5	10	PEM	33	1 or 2	0.007	65
Total Wetlands					**0.625**	**913**

*photos are located in Appendix B

Wetland 1 is the largest wetland onsite. Located in the floodplain of Nimisila Creek, this riverine wetland is an emergent wetland (PEM) within the maintained ROW and an emergent/scrub-shrub wetland outside the project area. Wetland 1 scored 47 on the ORAM, classifying it as a Category 2 wetland.

Wetland 2 is a small PEM wetland located within the maintained ROW. Sample Plot 1 is located within this wetland. Wetland 2 is dominated by reed canary grass (*Phalaris arundinacea*, FACW) and fowl manna grass (*Glyceria striata*, OBL). This wetland is disturbed by regular mowing in the ROW and by vehicle traffic. Wetland 2 scored 14 on the ORAM, classifying it as a Category 1 wetland.

Wetland 3 is a small PEM wetland located within the maintained ROW north of Stream 1. Wetland 3 is dominated by fowl manna grass (*Glyceria striata*, OBL). This wetland is disturbed by regular mowing in the ROW. Wetland 3 and 4 were scored together on the ORAM. The two wetlands scored 25 on the ORAM, classifying them as Category 1 wetlands.

Wetland 4 is a small PEM wetland located within the maintained ROW north of Stream 1. Sample Plot 3 is located within this wetland. Wetland 4 is dominated by fowl manna grass (*Glyceria striata*, OBL). This wetland is disturbed by regular mowing in the ROW. Wetland 3 and 4 were scored together on the ORAM. The two wetlands scored 25 on the ORAM, classifying them as Category 1 wetlands.

Wetland 5 is a PEM wetland located west of the ROW. It appears to be a former pond that was created by impounding Stream 2. Sample Plot 5 is located within this wetland. Wetland 5 is dominated by reed canary grass, with small areas of woolgrass (*Scirpus cyperinus*, OBL) and willows (*Salix* sp.). Wetland 5 scored 33 on the ORAM, classifying

it as a 1 or 2 gray zone wetland. In the absence of a nonrapid functional evaluation, Wetland 5 would be considered as a Category 2 wetland.

4.3 Streams and Rivers

One perennial stream and two intermittent streams were identified and delineated within the project area. The results are depicted in Table 9 and illustrated on Figure 5 (Appendix A). The intermittent streams have been assessed using the Headwater Habitat Evaluation Index (HHEI) and the perennial stream has been assessed using the Qualitative Habitat Evaluation Index (QHEI); the scoring form is included in Appendix E.

Table 9. Stream Results within the Project Area.

Stream		Photos*	Type	OHWM Width (feet)	Depth at Time of Survey (inch)	Length Within Project Area (linear feet)	Area Within Project Area (acres)	HHEI/ QHEI Score	Stream Use Designation
Nimisila Creek		11-13	Perennial	12	36	51	0.014	50	WWH
S-1		14-16	Intermittent	8	12	128	0.024	59	Class II PHWH
S-2	a	17-19	Intermittent	1.1	6	31	0.001	44	Class II PHWH
	b	20-22		4.5	8	17	0.002	45	Class II PHWH
Total Stream						**227**	**0.041**		

*photos are located in Appendix B

Nimisila Creek is a perennial stream that flows west through the project area. Nimisila Creek is impounded both upstream (Willowdale Lake) and downstream of the project area, and is basically a long pool system in the ROW. Nimisila Creek has a drainage area of 7.5 sq. mi., and so was evaluated using the QHEI. Nimisila Creek was scored as 50, which means that it is not in attainment of its Warmwater Habitat use designation.

S-1 is an intermittent stream that flows northeast through the project area and then into Nimisila Creek. S-1 is classified as an intermittent stream with a drainage area of approximately 0.45 square miles, and was assessed with the HHEI. The assessment of S-1 resulted in a HHEI score of 59, classifying it as a Class II primary headwater habitat stream.

S-2 is an intermittent stream that flows west through the project area and then into stream S-1. S-2 is classified as an intermittent stream with a drainage area of approximately 0.37 square miles, and was assessed with the HHEI. As the habitat within S-2a within Wetland 5 upstream of the ROW was very different from its habitat downstream of the ROW (S-2b), each section of stream received its own HHEI score. S-2a received an HHEI score of 44, classifying it as a Class II primary headwater habitat stream. S-2b received an HHEI score of 45, classifying it as a Class II primary headwater habitat stream.

4.4 PONDS AND LAKES

No ponds or lakes are present within the project area. The area depicted as a PUBG on the NWI map is part of Wetland 5, an emergent marsh.

5.0 REGULATORY JURISDICTION

The streams, wetlands and deepwater habitats described in this document are under the jurisdiction either of the U.S. Army Corps of Engineers or the Ohio EPA. No filling may occur in these areas without their written permission. Please contact the Ohio EPA Division of Surface Water at (614) 644-2001 or the Huntington District, U.S. Army Corps of Engineers, at (304) 399-5210 before working in these areas.

The following information is excepted and summarized from the 2007 *U.S. Army Corps Of Engineers Jurisdictional Determination Form Instructional Guidebook.*

> "In 2001, the … U.S. Supreme Court's decision in the *Solid Waste Agency of Northern Cook County (SWANCC) v. Corps* held that isolated, intrastate, non-navigable waters could not be regulated under the CWA based solely on the presence of migratory birds. Following the SWANCC decision it generally was believed that a water body (including a wetland) was subject to CWA jurisdiction if the water body was part of the U.S. territorial seas, or a traditional navigable water, or any tributary to a traditional navigable water, or a wetland adjacent to any one of the above. In addition, isolated wetlands and other waters might be considered jurisdictional where they had the necessary link to either navigable waters or interstate commerce."

In the state of Ohio, the Ohio EPA isolated wetland permitting program was legislatively created in response to the 2001 SWANC decision. On July 17, 2001, House Bill 231 was signed into law, establishing a permanent permitting process for isolated wetlands. The provisions of House Bill 231 were incorporated in Sections 6111.021 through 6111.029 of the Ohio Revised Code.

> "In 2006, the Supreme Court once again addressed the jurisdictional scope of Section 404 of the CWA, specifically the term "the waters of the U.S.," in *Rapanos v. U.S*. and in *Carabell v. U.S*. (hereafter referred to as Rapanos).

> The decision provides two new analytical standards for determining whether water bodies that are not traditional navigable waters (TNWs), including wetlands adjacent to those non-TNWs, are subject to CWA jurisdiction: (1) if the water body is relatively permanent, or if the water body is a wetland that directly abuts (e.g., the wetland is not separated from the tributary by uplands, a berm, dike, or similar feature) a relatively permanent water body (RPW), or (2) if a water body, in combination with all wetlands adjacent to that water body, has a significant nexus with TNWs. CWA jurisdiction over TNWs and their adjacent wetlands was not in question in this case, and, therefore, was not affected by the Rapanos decision. In addition, at least five of the Justices in Rapanos agreed that CWA jurisdiction exists over all TNWs and over all wetlands adjacent to TNWs.
>
> The Memo states that the [Corps and USEPA] will assert jurisdiction over the following categories of water bodies: TNWs; all wetlands adjacent to TNWs; non-navigable tributaries of TNWs that are relatively permanent (i.e., tributaries that typically flow year-round or have continuous flow at least seasonally); and wetlands that directly abut such tributaries. In addition, the agencies will assert jurisdiction over every water body that is not an RPW if that water body is determined (on the basis of a fact-specific analysis) to have a significant nexus with a TNW. The classes of water body that are subject to CWA jurisdiction only if such a significant nexus is demonstrated are: non-navigable tributaries that do not typically flow year-round or have continuous flow at least seasonally; wetlands adjacent to such tributaries; and wetlands adjacent to but that do not directly abut a relatively permanent, non-navigable tributary. A significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or an insubstantial effect on the chemical, physical, and/or biological, integrity of a TNW. Principal considerations when evaluating significant nexus include the volume, duration, and frequency of the flow of water in the tributary and the proximity of the tributary to a TNW, plus the hydrologic, ecologic, and other functions performed by the tributary and all of its adjacent wetlands."

6.0 ASSUMPTIONS AND DISCLAIMERS

The constant influence of human activity on the project area can result in a rapid change of ecological boundaries. Over time, natural succession and changes in hydrology can also affect their boundaries. Precision of GPS collected data is subject to variation caused by canopy cover, atmospheric interference and satellite configuration. Because slight inaccuracies are possible, all acreages and derived boundaries presented in this report are approximate.

The results and conclusions contained in this report apply to the year and date in which the data were collected. This report is not considered officially valid until it is approved by the Corps. The report is then valid for a period of five years. Refer to the Corps' Regulatory Guidance Letter # 94-1 (23 May 1994).

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Appendix A:

Figures

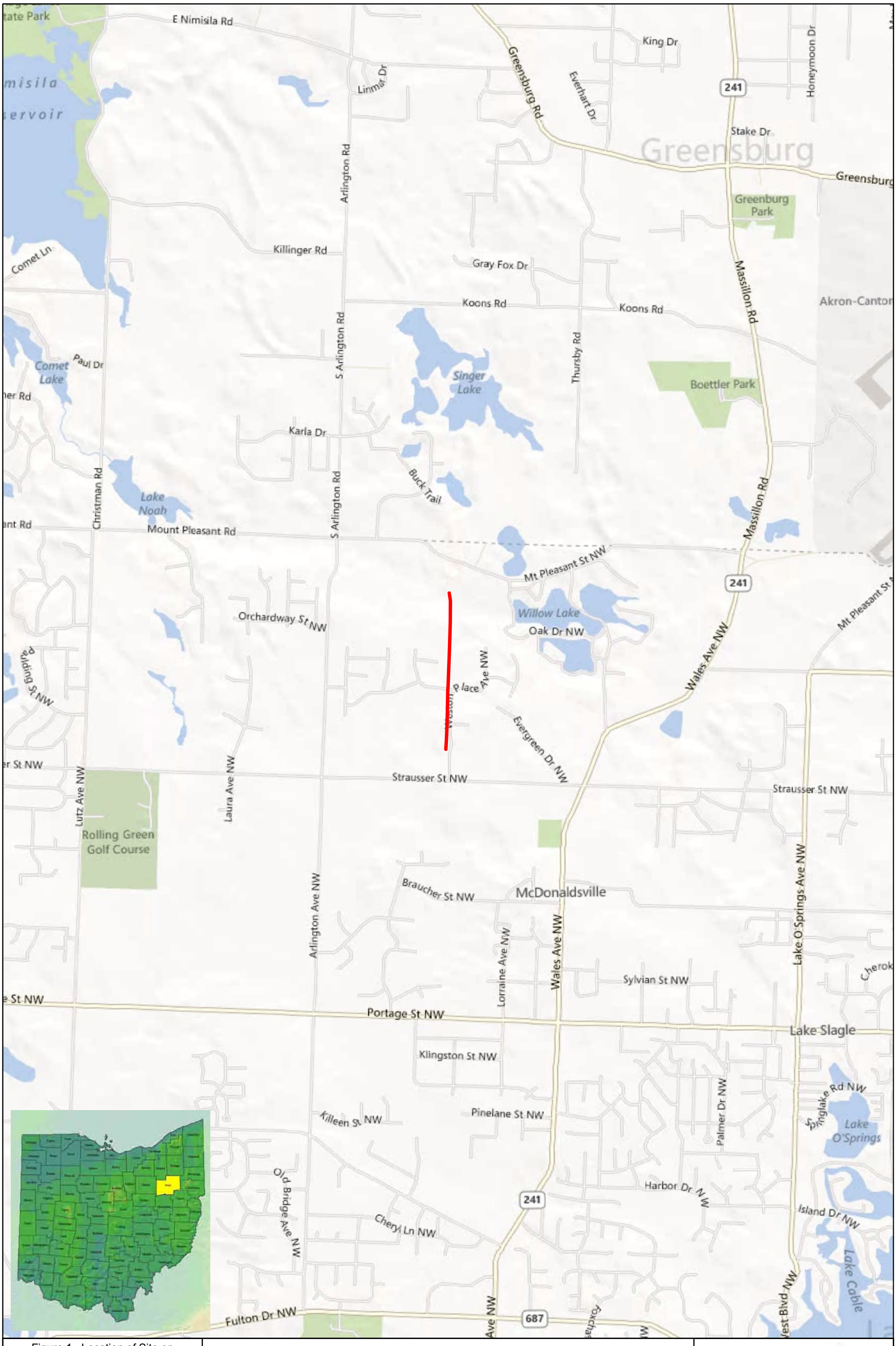

Figure 1. Location of Site on Highway Map of Stark County, Ohio.
Base Gas Projects, Group 3, Line 2888.

Project Area

2,500 1,250 0 2,500 Feet

600 300 0 600 Meters

N

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Figure 2. USGS 7.5-minute Topographic Map of North Canton Quadrangle. Base Gas Projects, Group 3, Line 2888.

Project Area

1,000 500 0 1,000 Feet

250 125 0 250 Meters

N

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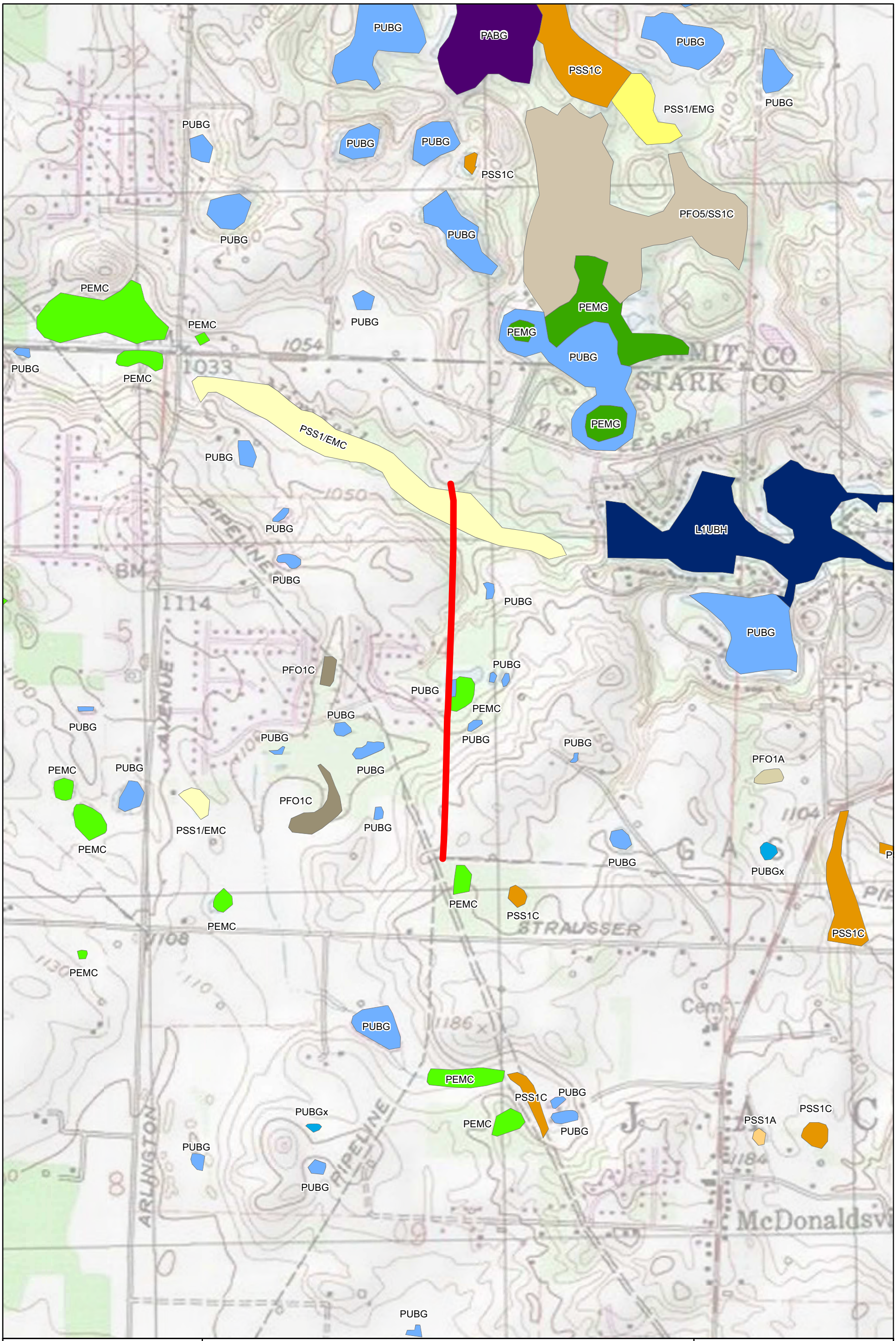

Figure 2. USGS 7.5-minute Topographic Map of North Canton Quadrangle. Base Gas Projects, Group 3, Line 2888.

Project Area

1,000 500 0 1,000 Feet

250 125 0 250 Meters

N

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Figure 4. Soil Map of Site in Stark County, Ohio. Base Gas Projects, Group 3, Line 2888.

Project Area

1,000 500 0 1,000 Feet

250 125 0 250 Meters

N

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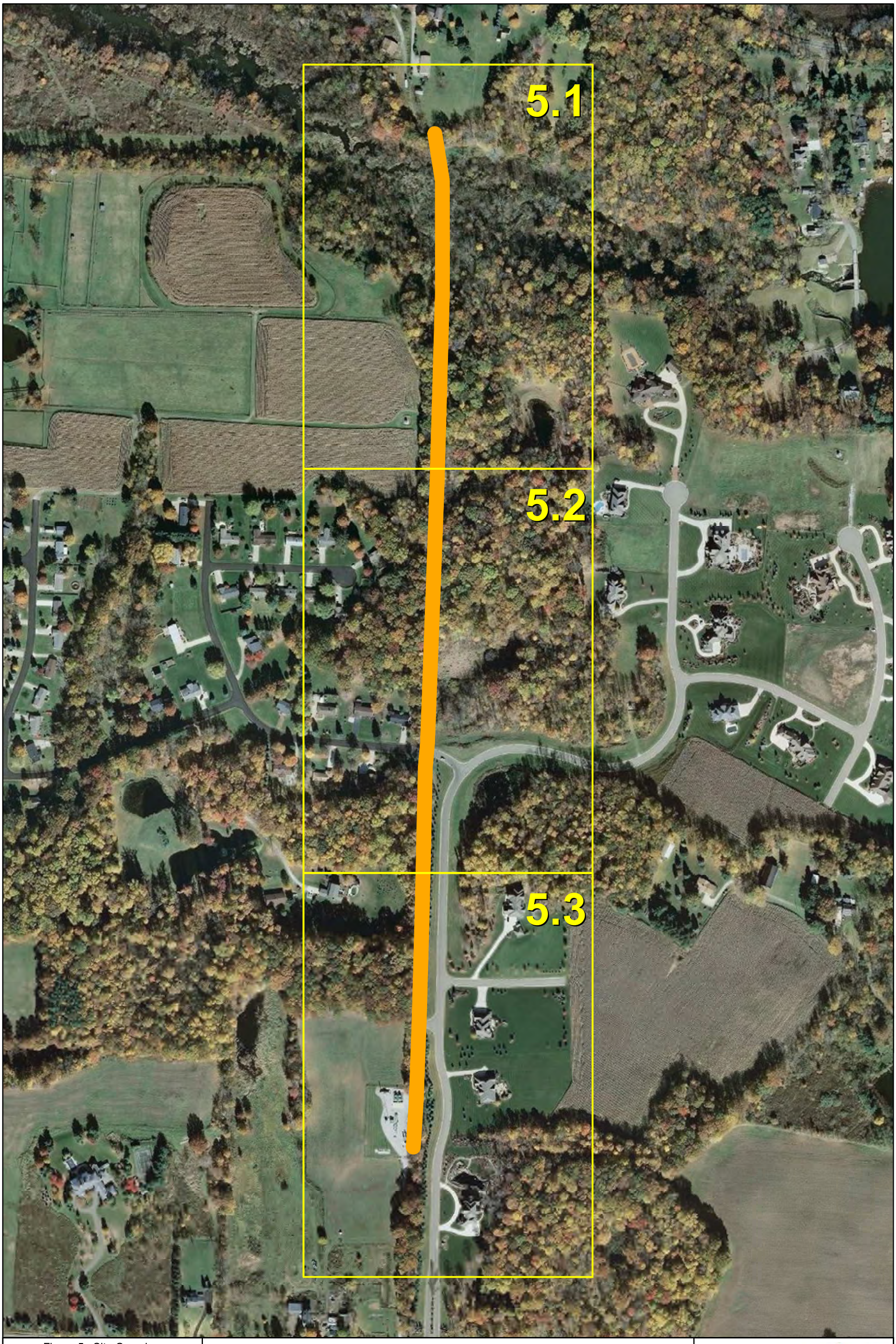

Figure 5. Site Overview
Map of Wetlands
and Other Resources.
Base Gas Projects, Group 3,
Line 2888.

Project Area

400 200 0 400 Feet

100 50 0 100 Meters

N

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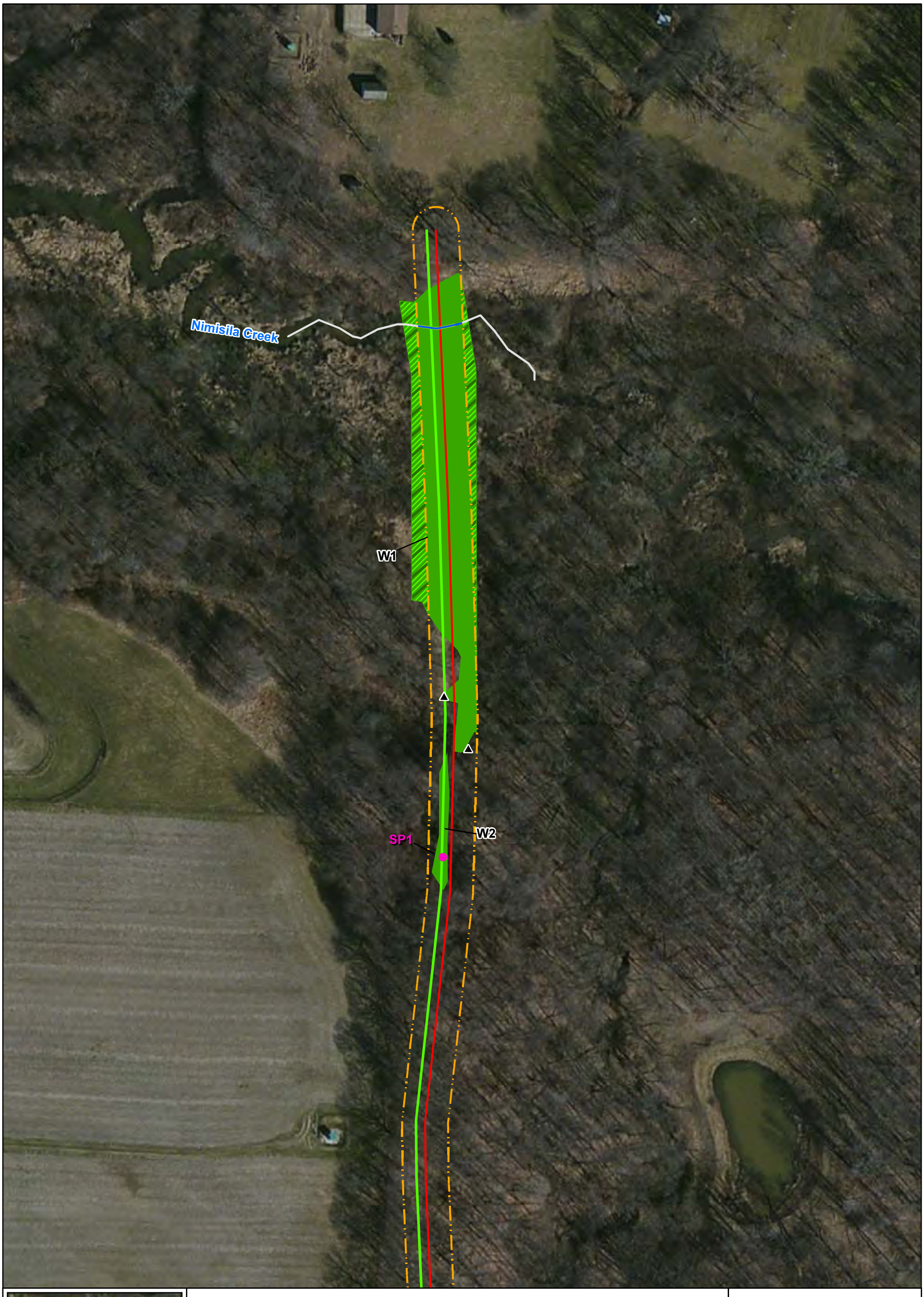

Figure 5.01. Site Map of Wetlands and Other Water Resources.
Base Gas Projects, Group 3, Line 2888.

PMRT
PRT
Sample Location
Culvert
Existing Pipeline
Proposed Pipeline
Stream (Intermittent)
Stream (Perennial)
Stream (Offsite)
Wetland (PEM)
Wetland (Offsite)
Project Area

80 40 0 80 Feet

20 10 0 20 Meters

5.01

EnviroScience

Date: 12/20/2013 Path: P:\Ecological Survey\Dominion\EI_Non_PIR\BasGasProjects\Base Gas Projects, Group 3, Line 2888\GIS\Map5_Site_REV.mxd

Basemap courtesy of ESRI (Microsoft 2010).

Summary: Correspondence of Dominion East Ohio Gas Company Submitting Supplemental Information - Part 1 of 2 electronically filed by Teresa Orahood on behalf of Sally Bloomfield