STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

APPLICATION FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED TO CONSTRUCT AN APPROXIMATELY 9.5-MILE NATURAL GAS GATHERING PIPELINE

NEW YORK MAINLINE LOOP NATURAL GAS PIPELINE PROJECT

CASE 13-T-____

UNDER ARTICLE VII OF THE NEW YORK PUBLIC SERVICE LAW

DECEMBER 2, 2013

TOWN OF WINDSOR, COUNTY OF BROOME, STATE OF NEW YORK

APPLICANT:

Williams Field Services Company, LLC and
DMP New York, Inc.
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WILLIAMS FIELD SERVICES COMPANY, LLC AND
DMP NEW YORK, INC.

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1.0 Application to Construct a Natural Gas Pipeline

Pursuant to Article VII, Section 121-(a)(3) of the New York ("NY") Public Service Law ("PSL") and 16 New York Code of Rules and Regulations (NYCRR Part 85-1.3), Williams Field Services Company, LLC and DMP New York, Inc. ("DMP"), as co-applicants (collectively, "Williams" or "Applicants") hereby submit this application to construct a natural gas pipeline ("Application") to the NY Public Service Commission ("NYPSC") and respectfully request a Certificate of Environmental Compatibility and Public Need ("Certificate") to construct and operate a proposed 9.5 mile 16-inch diameter natural gas pipeline ("NY Mainline Loop Pipeline" or the "Project"), which will run parallel to Williams' existing 16-inch diameter natural gas pipeline ("NY Mainline") in the Town of Windsor, County of Broome, State of NY, as shown on **Exhibit A** ("Project Location Map"). The installation of additional piping at Williams' Dunbar Compressor Station ("CS") is not required for satisfying the purpose and need of this Project. Williams' NY Mainline (9.5 miles of which is located in Broome County, NY) and its Dunbar CS were approved by the NYPSC by Order dated February 22, 2011 in Case 10-T-0350.[1]

The initial purpose of the NY Mainline and the pipelines located upstream in Pennsylvania ("PA") was to serve as a gathering line for natural gas from 9 existing wells and 9 permitted wells operated by WPX Energy Keystone, LLC's predecessor-in-interest, Alta Resources, LLC, to serve additional prospective wells drilled by Carrizo (Marcellus), LLC in Susquehanna County, PA and to transport that gas to the 30-inch transmission pipeline owned by the Millennium Pipeline Company, LLC ("MPC") in NY. As of June 2013, the NY Mainline and the pipeline system located upstream in PA gathers natural gas from over 120 wells in Susquehanna County, PA and Wyoming County, PA from its 3 exploration and production customers: WPX Energy Keystone, LLC; Carrizo (Marcellus), LLC; and Cabot Oil & Gas Corporation ("Williams' Customers"). Given the success of Williams' Customers, and the prolific nature of the Marcellus Shale wells that have been drilled by Williams' Customers, Williams' NY Mainline is almost, and will be in the near future, at full capacity.

The proposed Project will serve as an additional gathering line and outlet for the increased production by Williams' Customers. Approximately 150 wells will be attached

[1] Case 10-T-0350, *Application of DMP New York, Inc. and Laser Northeast Gathering Company, LLC (Laser) for a Certificate of Environmental Compatibility and Public Need Pursuant to Article VII to Construct a 16-Inch Natural Gas Gathering Pipeline to the Existing Millennium Pipeline in the Town of Windsor, Broome County, NY Approximately 51,857 feet of Steel Coated Pipeline and a Gas Compressor Station,* Order Granting Certificate of Environmental Compatibility and Public Need (February 22, 2011). Subsequently, on July 25, 2012, Laser, pursuant to Section 121(3) of the PSL, filed a *Joint Petition for Approval of Amendment to Certificate of Environmental Compatibility and Public Need* requesting that the NYPSC issue an order amending the Certificate to add 2 additional compressor units to the Dunbar CS.

in PA by December 31, 2013, and Williams expects that approximately 180 wells will be attached by December 31, 2014. All of these prospective wells will be located in Susquehanna and Wyoming Counties, PA and the volumes produced will need pipeline capacity to reach Williams' downstream interconnection with MPC. The NY Mainline and NY Mainline Loop Pipeline will also have the capability to gather natural gas from wells in the Southern Tier of NY, should the opportunity arise.

The proposed NY Mainline Loop Pipeline will begin at the NY/PA state line and will be adjacent to, and parallel with, the NY Mainline in Broome County, NY with an approximate 15-foot distance between the two pipelines(with several crossings) and located predominantly in the right-of-way ("ROW") that Williams previously acquired with the approval of the property owners. The NY Mainline Loop Pipeline will feed into Williams' Dunbar CS for ultimate delivery into the existing interconnection with MPC's 30-inch transmission pipeline. The proposed Project will consist of 5 components: (1) approximately 9.2 miles of 16-inch diameter steel pipeline in the Town of Windsor; (2) a mainline block valve and pig launcher located along the ROW approximately 3,625 feet north of the NY/PA state line; (3) a mainline block valve located along the ROW immediately south of NY SR 17/I-86; (4) a mainline block valve and pig receiver that ties the NY Mainline Loop Pipeline into Williams' existing Dunbar CS; and (5) approximately 0.3-mile of 16-inch diameter steel pipeline from the discharge of the existing Dunbar CS to the interconnect with the MPC.

Williams also requests that the NYPSC issue a Water Quality Certification pursuant to Article 15, Title 5, of the Environmental Conservation Law ("ECL") and Section 401 of the Clean Water Act.

Pursuant to 16 NYCRR Subpart 85-1.2(c), Williams' is requesting that this Application be reviewed under 16 NYCRR 85-1.7 and Section 121-a.7 of the PSL. Section 2.8 herein contains the analysis required by Subpart 85-1.2(c). Williams has reviewed all applicable substantive municipal, county, and State laws, regulations, and codes which would otherwise be applicable to any portion of the proposed Project, had it not been pursued under Article VII, and there are applicable substantive requirements, if applied by the NYPSC to the Project that Williams believes are unreasonably restrictive. Compliance with, or a waiver requested for, applicable local requirements is addressed in Section 2.8 herein. Proposed exceptions to the Environmental Management and Construction Standards and Practices ("EM&CS&P") manual approved by the NYPSC in Case 06-T-1383 are discussed in this Application and in Section 2.7.6. As explained in more detail herein, substantive requirements concerning the use of heavy vehicles on Broome County Roads are discussed in Section 2.8.3.3 Motor Vehicles. Hours of proposed construction outside those identified in the EM&CS&P are also discussed in this Application, specifically Section 2.2.4.2. Furthermore, substantive local requirements that may be applicable to construction noise are discussed in Section

2.8.4.2. Williams will comply with all applicable NY gas safety requirements that, in some instances, are more stringent than Federal requirements.

Williams anticipates the Project should be completed within 4 months of the commencement of construction depending on applicable requirements, restrictions and other factors outside of Williams' control, including but not limited to weather, material availability, and construction resources.

On February 7, 2013, Laser Northeast Gathering, LLC ("Laser"), DMP, LNGC Holdings, LLC, and Williams filed for a Verified Joint Petition for Approval Pursuant to Section 70 of the NY PSL. The aforementioned entities petitioned the NYPSC for approval of the proposed transfer to Williams of all of the assets of the subsidiaries, Laser and LNGC Holdings, LLC, through a merger of these subsidiaries directly into Williams. On June 8, 2013, the NYPSC issued an Order Approving Transfer. After the transfer, DMP remains a viable entity and is a direct wholly owned subsidiary of Williams. As a result of the transfer, all assets previously held by Laser were transferred through a merger of LNGC Holdings, LLC and Laser directly into Williams.

DMP is a pipeline corporation organized under Article 7 of the NY Transportation Corporations Law and, as such, it is vested with the power of eminent domain. Williams Field Services Company, LLC is a foreign limited liability company authorized to do business in the State of NY.

Williams proposed Certificate Conditions are contained within **Exhibit B**.

2.0 Project Description

Williams is proposing to construct the NY Mainline Loop Pipeline, which will be a natural gas gathering pipeline, in the Town of Windsor, Broome County, NY, that will consist of 9.5 miles of 16-inch diameter steel pipeline. The maximum allowable operating pressure of the NY Mainline Loop Pipeline will be 1440 pounds per square inch gauge ("psig") and will be designed to the United States Department of Transportation ("USDOT") 49 CFR 192 criteria, as well as to the NYPSC 16 NYCRR (Part 255) pipeline safety regulations. The proposed NY Mainline Loop Pipeline will parallel the NY Mainline at approximately a 15-foot offset and located primarily within the existing 40-foot permanent ROW. The existing ROW is proposed to be modified in order to allow adequate space to construct and maintain the new pipeline as well as centering both pipelines with adequate spacing. The proposed construction work limit is anticipated to be a 65-foot corridor (40-foot existing permanent and 25-foot temporary) with additional temporary workspace as needed throughout the construction of the Project. In Case 10-T-0350, 20 feet of temporary ROW was used; however Williams proposes, where approved by the affected landowners, that 25 feet of temporary ROW be used as an additional 5 feet of temporary ROW is required due to the limited usable space on the

non-working side (area adjacent to the existing NY Mainline) of the proposed NY Mainline Loop Pipeline. Additional information pertaining to the proposed modifications of the ROW certified in Case 10-T-0350 is provided in the Petition for Approval of Amendment to the Certificate of Environmental Compatibility and Public Need ("Petition") filed contemporaneously with, and included in, this Application. Aboveground structures proposed for the Project include a pig launcher, pig receiver, and mainline block valves near the northern, middle, and southern end of the proposed NY Mainline Loop Pipeline. Access to the Project will be via public and private roads. A majority of the private access roads to be used for the Project are existing; some are new temporary or permanent access roads. The creation of these temporary and permanent access roads are discussed in Section 2.3 herein. A completed Appendix 7-D Form A of 16 NYCRR Part 255.302 is provided as **Exhibit C** as part of this Project description.

2.1 Statement of Public Need

Despite the existence of the NY Mainline and other pipelines (with which the Project will compete against), there is still an inadequate presence of natural gas pipelines and gathering infrastructure that are required to collect, aggregate and bring additional quantities of clean burning natural gas to NY. The proposed NY Mainline Loop Pipeline will serve this need. Like the NY Mainline, the NY Mainline Loop Pipeline will feed into Williams' existing facilities for ultimate delivery into the existing interconnection with the MPC. MPC serves the NY State service territories of National Grid, Orange and Rockland Utilities, NY State Electric and Gas Corporation, Corning Natural Gas, and Central Hudson Gas and Electric Corporation. Thus, the NY Mainline Loop Pipeline will provide NY, other northeast markets, and their residents with an additional supply of regionally produced natural gas.

As mentioned in Section 1.0 of this Application, the initial purpose of the NY Mainline and the pipelines located upstream in PA was to serve as a natural gas gathering line for natural gas from 9 existing wells and 9 permitted wells operated by WPX Energy Keystone, LLC's predecessor-in-interest, Alta Resources, LLC and to serve additional prospective wells drilled by Carrizo (Marcellus), LLC in Susquehanna County, PA. However, as of June 2013, the NY Mainline and the pipelines located upstream in PA is gathering natural gas from over 120 wells in Susquehanna and Wyoming Counties, PA for Williams' Customers. Given the success of Williams' Customers, which have long term binding agreements that dedicate acreage to Williams, and the prolific nature of the Marcellus Shale wells that have been drilled by Williams' Customers to date, Williams' NY Mainline is almost, and will be in the near future, at full capacity.

In order to alleviate this capacity constraint, Williams has developed a 2 prong plan: (1) complete an efficiency and reliability project at the Dunbar CS and add additional compression capacity at its Dunbar CS; and (2) add additional pipeline capacity in NY

upstream of the interconnection site at MPC. In that regard, on July 25, 2012, Williams filed the Joint Petition for Approval of Amendment to Certificate of Environmental Compatibility and Public Need in Case 10-T-0350 permitting the addition of 2 compressor units (and the removal of one compressor unit) at the existing Dunbar CS.[2] In addition, in the fall of 2013, Williams implemented an efficiency and reliability project to enhance the performance of the Dunbar CS ("Dunbar CS Efficiency Project"). The objective of the Dunbar CS Efficiency Project is to fully utilize the existing horsepower at the Dunbar CS while simultaneously increasing reliability due to enhanced filtration and separation capabilities.

The NY Mainline and the Dunbar CS as currently designed and constructed have an estimated throughput capacity of between 200 and 225 million cubic feet of gas per day (MMcf/d). Williams' total contracted capacity to the MPC interconnect is approximately 463 MMcf/d. Completing the Dunbar CS Efficiency Project and adding the 2 additional compressor units to the existing Dunbar CS will ultimately allow additional quantities of natural gas to be transported to market for sale. It is anticipated that, by completing the Dunbar CS Efficiency Project and adding the 2 additional compressor units only, throughput capacity will be increased by approximately 150 MMcf/d. This expansion of compression capacity only, therefore, will help, but it will not eliminate the existing capacity constraint, thereby prohibiting additional natural gas production from being supplied to NY.

As such, the NY Mainline Loop Pipeline is also needed to serve as an additional gathering line and an outlet for the increased production by Williams' Customers. The NY Mainline Loop Pipeline, once fully operational, and assuming that the additional compression capacity is approved and functioning and the Dunbar CS Efficiency Project is complete, will increase the overall capacity by approximately an additional 100 to 120 MMcf/d. This additional capacity is needed in that Williams expects approximately 150 wells to be attached in PA by December 31, 2013, and approximately 180 wells to be attached by December 31, 2014. All of these prospective wells will be located in Susquehanna and Wyoming Counties, PA. The NY Mainline Loop Pipeline will also have the capability to gather natural gas from wells in the Southern Tier of NY should the opportunity arise. Williams' Customers have already contracted with Williams for this additional capacity making Williams' total contracted capacity to the MPC interconnect approximately 463 MMcf/d, which is approximately between 238 to 263 MMcf/d greater than Williams' current capacity to MPC.

While the actual timing and productivity of these wells is dependent on a number of factors including, without limitation, actual well performance and gas prices, empirical

[2] Case 10-T-0350, *Joint Petition of DMP New York, Inc. and Laser Northeast Gathering Company, LLC to amend Certificate of Environmental Compatibility and Public Need to Add Two Compressor Units* (July 25, 2012).

data strongly indicates that natural gas production from the Marcellus Shale will continue to increase and be substantial. Specifically, the natural gas production data released by the PA Department of Environmental Protection ("PaDEP") for the first half of 2013 revealed production of approximately 10.1 Bcf/d.[3] This production total is over 2 Bcf/d higher than the data released by PaDEP for the second half of 2012 and is over 8 Bcf/d higher than in 2009. Significantly, in the year immediately preceding Williams' initial Application in Case 10-T-0350, the total annual natural gas production in PA was less than 0.5 Bcf/d.

A closer look at this data also reveals that Susquehanna County, PA, which is the county where the majority of the applicable wells are located, continues to be one of PA's top natural gas producing counties. For the first half of 2013, and in past reporting periods, Susquehanna County, PA was, and is, the second most productive county in PA accounting for 21 percent of PA's total natural gas production. In particular, for the first half of 2013, natural gas wells located in Susquehanna County produced over 2.1 Bcf/d of natural gas. Furthermore, one of Williams' Customers, Cabot Oil & Gas Corporation, had 10 of the top 20 producing wells in the second half of 2012 and 9 of the 10 wells for the first half of 2013. While this increase in natural gas production has led to a higher than normal supply and, in turn, lower gas prices, industry analysts believe that the lower costs associated with the Marcellus Shale production techniques will allow drilling and production to continue.[4] It is this dramatic increase in production coupled with Williams' strong customer commitments and a lack of sufficient gathering infrastructure that has overwhelmed the capacity on the NY Mainline and has precipitated the need for the NY Mainline Loop Pipeline and its corresponding additional capacity in order to facilitate the delivery of additional volumes of natural gas to MPC and ultimately NY.

The Project is consistent with, and promotes the recommendation in the 2009 State Energy Plan to support local production and use of natural gas.[5] Historically, NY, and the northeast as a whole, has been reliant on natural gas supplies imported from other regions including the Gulf Coast, the Rockies, and Canada due to limited local supplies and a continuous and large demand from the northeast's largest cities. According to energy analysts, long-haul pipelines mainly from these 3 regions have historically supplied about 85 percent of the demand in the northeast, which translates into an estimated average of 11 Bcf/d to 12 Bcf/d between 2005 and 2010.[6] However, due to

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3 https://www.paoilandgasreporting.state.pa.us/publicreports/Modules/DataExports/DataExports.aspx

4 www.standardandpoors.com/ratingsdirect, *How the Marcellus Shale is Changing the Dynamics of the U.S. Energy Industry*, October 15, 2012.

5 New York State Energy Board, December 2009, available at: http://www.nysenergyplan.com/final/New_York_Energy Plan_VolumeI.pdf.

6 www.standardandpoors.com/ratingsdirect, *How the Marcellus Shale is Changing the Dynamics of the U.S. Energy Industry*, October 15, 2012.

natural gas resources being developed so close to NY and northeast markets, the amount of natural gas being imported is steadily declining and, if additional sources of natural gas continue to enter these markets, this decline trend will continue into the future. This is precisely why the State Energy Plan recommends tapping and using this local resource in order to "…increase the reliability and security of our energy systems, reduce energy costs and contribute to meeting climate change, public health and environmental objectives."[7]

The NY Mainline Loop Pipeline will provide NY with regionally produced natural gas that will displace supplies from the traditional distant imported sources. By displacing natural gas supplies from these other regions with a supply located and gathered regionally, deliverability and reliability are enhanced and supply disruptions due to pipeline capacity limitations, severe weather, and other factors that are present when transportation distances are greater will be minimized. Furthermore, by gathering and delivering natural gas in relative close proximity to NY and the MPC, natural gas price instability and volatility will be reduced and the costs for transporting gas long distances and other fees traditionally paid to intermediate brokers, pipelines, and other middlemen are minimized or eliminated thereby lowering the overall cost of the delivered natural gas. Increased steady supplies of economically produced natural gas entering NY together with lower costs will likely result in increased competition in the local gas markets and lower gas prices to regional consumers.

In NY, a market exists for the growing natural gas supply due to the displacement outlined above and due to demand growth projected in the region. A recent report prepared for NY City Mayor's Office of Long-Term Planning and Sustainability entitled *Assessment of New York City Natural Gas Market Fundamentals and Life Cycle of Fuel Emissions*,[8] projected that total gas consumption in the northeast is expected to grow from about 3.9 Tcf in 2010 to 5.3 Tcf in 2030. This is a growth rate of about 1.6 percent per year, which is almost the same growth rate for the entire United States and Canadian markets. The report notes that this increased demand growth is attributable to, among other things: (1) the power sector from the expanded use of natural gas-fired generating facilities; (2) increased industrial use and consumption; (3) new environmental regulations; (4) public policies that disfavor other fuel sources (i.e. coal and nuclear); and (5) increased residential and commercial use created by conversion from fuel oil to natural gas.

Although the Project will not provide any retail services or serve any retail customers, through its interconnection with MPC, the Project will serve the NY State service

[7] New York State Energy Board, December 2009, available at: http://www.nysenergyplan.com/final/New_York_Energy Plan_VolumeI.pdf.

[8] www.nyc.gov/html/om/pdf/2012/icf_natural_gas_study.pdf, *Assessments of New York City Natural Gas Market Fundamentals and Life Cycle of Fuel Emissions*, August 2012.

territories of National Grid, Orange and Rockland Utilities, NY State Electric and Gas Corporation, Corning Natural Gas, and Central Hudson Gas and Electric Corporation which will lower the cost of energy for New Yorkers and NY's industries (including the power sector/electric generators) as natural gas retail customers.

The NY Mainline Loop Pipeline will compete against other pipelines, gathering lines and gas suppliers to deliver natural gas to the MPC system. The NY Mainline Loop Pipeline, therefore, promotes competition by increasing the available quantity of natural gas supplies for NY State's consumers. The NY Mainline Loop Pipeline will also compete with other prospective pipelines since there is currently a lack of sufficient gathering infrastructure which is needed to adequately handle the abundant natural gas supply.

Currently, even though there are other pipelines that exist or are planned in proximity to the NY Mainline Loop Pipeline, those pipelines either serve other exploration and production customers on long-term binding contractual arrangements or will serve as a transmission line and not a gathering line. For example, the Bluestone Gathering System,[9] which was recently approved by the NYPSC, will serve as an outlet for the production of natural gas being produced by affiliates of Southwestern Energy. Similar to Williams' commercial arrangements with its customers, this service is being provided by Bluestone Gas Corporation of NY, Inc. to the affiliates of Southwestern Energy pursuant to binding, long term agreements with significant volume and acreage commitments. Thus, notwithstanding the existence of the Bluestone Gathering System, the NY Mainline Loop Pipeline is still needed to serve as an additional gathering line and an outlet for the increased production and supply by Williams' Customers.

Moreover, the proposed Constitution Pipeline, which is a partnership between Williams, Cabot Oil & Gas Corporation, and Piedmont Natural Gas, will serve as a Federal Energy Regulatory Commission ("FERC") regulated natural gas transmission line similar to the MPC and dissimilar to the existing NY Mainline, the proposed NY Mainline Loop Pipeline, and the Bluestone Gathering System. Transporting natural gas from wellheads to various markets requires a wide array of interdependent facilities including gathering and transmission facilities. Natural gas gathering facilities, which are typically smaller diameter pipelines, collect, aggregate and move natural gas from natural gas wells to interconnections with larger diameter and length transmission pipelines. Natural gas transmission facilities, which are typically large diameter/long distance pipelines, receive gas at the various points of interconnection with the gathering facilities and transport the

[9] Case 11-T-0401 and Case 12-G-0214, *Application of Bluestone Gas Corporation of New York, Inc. for a Certificate of Environmental Compatibility and Public Need Pursuant to PSL Article VII for the Construction and Operation of a 20" Natural Gas Gathering System and Dehydration and Compression Facilities, in the Town of Sanford, Broome County, and Request for Approval of Environmental Management and Construction Standards and Practices,* Order Adopting the Terms of a Joint Proposal and Granting Certificate of Environmental Compatibility and Public Need and Certificate of Public Convenience and Necessity (September 21, 2012).

natural gas to market areas. Without natural gas gathering infrastructure, transmission facilities like MPC and the proposed Constitution Pipeline would not be able to obtain natural gas to deliver to the market areas. Similarly, without natural gas transmission facilities, gathering facilities like the NY Mainline and the proposed NY Mainline Loop Pipeline would not be able to move natural gas from the production and development areas to the downstream markets. Most importantly, Williams has contractual obligations with its customers to deliver their natural gas to MPC and the proposed Constitution Pipeline cannot fulfill or meet this need since it will not be delivering natural gas to MPC. Therefore, the existence of the Constitution Pipeline by itself will not remedy Williams' current capacity constraint nor will it be able to meet Williams' Customers' needs in collecting and moving their natural gas from the wells to the downstream interconnection site with MPC.

Williams had informal conversations with, and obtained informal guidance from, FERC Staff to confirm that the Project does not fall under the FERC's jurisdiction and is consistent with the FERC's prior finding that the NY Mainline and the pipelines located upstream in PA functions as non-jurisdictional gathering. This same determination was made during the installation of the NY Mainline in NYPSC Case 10-T-0350. Williams explained to FERC Staff that the need for the Project is driven entirely by the substantial growth in Marcellus production and not by any change in function of the subject gathering system thereby making the determination in the Order Determining Jurisdictional Status of Facilities ("Order"; March 5, 2010; Docket No. CP 10-35-000) equally applicable to the Project. Based upon the structure and characteristics of the proposed Project, and its prior non-jurisdictional finding set forth in the Order, FERC staff concluded that the proposed Project does not fall under FERC's jurisdiction and is consistent with the FERC's Order. A copy of the Order stating that the NY Mainline did not fall under FERC's jurisdiction in NYPSC Case 10-T-0350 is included as **Exhibit C-1**.

In addition to the benefits outlined above, the NY Mainline Loop Pipeline will also provide other ancillary benefits to the public. The addition of in-state natural gas infrastructure will create numerous temporary jobs related to the construction and installation of the NY Mainline Loop Pipeline and, potentially, additional permanent jobs. Williams' field office, which is located in the Town of Windsor, will continue to grow and function and will result in continued patronage of local businesses. The Town of Windsor will continue to benefit from the increase in property tax revenues attributable to the Williams facilities. Recently, various local news outlets reported that property owners in the Windsor Central School District have received a 5.8 percent tax rate reduction as a result of Williams' existing facilities and real property ownership. Once operational, Williams will continue its practice of using local service providers in its operation and maintenance activities, which will provide additional economic benefits to Broome County and other surrounding NY areas.

2.2 Pipeline Location, Route and Approximate Length

2.2.1 Description of Pipeline Route and Approximate Length

Williams is proposing to construct approximately 50,187 feet (9.5 miles) of 16-inch natural gas pipeline that will start with connection to MPC and travel in a southerly direction through Broome County, NY to end at the PA/NY border.

The following is a general description, based off the Construction Alignment Sheets ("CAS") (**Exhibit I**), of the proposed NY Mainline Loop Pipeline route within the Town of Windsor, Broome County, NY.

Commencing at the MPC Interconnect, the NY Mainline Loop Pipeline travels in a southerly direction 1,485 feet crossing:

- Access Road-9 via open-cut
- an overhead electric line
- Streams SNY-SJB-009, SNY-SJB-001 via dry-ditch open-cut
- a ditch
- Stream SNY-SJB-010 via dry-ditch open-cut

The NY Mainline Loop Pipeline then connects to valves at the northwest corner of the Dunbar CS where it then re-starts at the southeastern corner and travels southeast 531 feet crossing an existing fence.

Then turning and continuing in a southerly direction 1,952 feet crossing:

- Stream SNY-SJB-002 via dry-ditch open-cut
- an existing wood trail
- Stream SNY-SJB-004 via dry-ditch open-cut

Then southwest 153 feet

Then turning southeast and continuing 362 feet crossing:

- the NY Mainline
- Wetland WNY-SLH-039 via timber-mat and open-cut
- the active agricultural area on the Travis property

Then turning southwest and continuing 155 feet crossing:

- a telephone line and an overhead electric line
- Dunbar Road via open-cut or conventional bore
- the NY Mainline

Thence continuing 1,386 feet southeast crossing:

- Access Road-8
- Stream SNY-SJB-005 via dry-ditch open-cut
- Wetland WNY-SJB-017 via timber-mat and open-cut
- The NY Mainline

Thence turning west and continuing 1,360 feet crossing:

- Stream SNY-SJB-006 (Occanum Creek) via dry-ditch open-cut
- Wetland WNY-SJB-018 via timber-mat and open-cut
- Stream SNY-SJB-008 via dry-ditch open-cut
- Wetland WNY-SJB-016 via timber-mat and open-cut
- the NY Mainline

Thence continuing in a southerly direction 4,539 feet crossing:

- Streams SNY-SJB-017 and SNY-SJB-016 via dry-ditch open-cut
- Wetlands WNY-SJB-023 and WNY-SJB-022 via timber-mat and open-cut
- Streams SNY-SJB-015, SNY-SJB-014, SNY-SJB-013 via dry-ditch open-cut
- an existing trail
- a stone wall
- an existing wood trail
- a stone wall
- an existing wood trail

Thence turning east and continuing 689 feet crossing:

- the NY Mainline
- a ditch and AR-6 via open-cut

Thence in a southerly direction 2,195 feet crossing:

- Via Guided Conventional Bore
    - the NY Mainline
    - an underground telephone line
    - an overhead electric line
    - a communication line
    - a ditch
    - Fox Farm Road (County Road 28)
    - Route 17/I-86 west bound
    - Route 17/I-86 east bound
    - a ditch
    - Wetland WNY-SJB-028
    - Stream SNY-SJB-020
    - AR-5
- the active agricultural area on the Fox Farm, LLC Property
- Stream SNY-SJB-019 via dry-ditch open-cut
- the active agricultural area on the Farr Property
- an overhead electric line
- a communication line
- an existing fence
- Rockwell Road via open-cut or conventional bore
- an existing storm culvert

- an existing fence
- an existing fence

Thence southeast 404 feet crossing:

- Wetland WNY-SLH-036 via open-cut

Thence in a southerly direction 1,368 feet crossing:

- an existing wood trail

Thence southeast 738 feet crossing the active agricultural area on the Root Property

Then 2,223 feet in a southerly direction crossing:

- a wood trail
- an overhead electric line
- an existing fence
- an existing storm culvert
- Hoadley Hill Road via open-cut or conventional bore
- an existing storm culvert
- an overhead electric line
- an existing fence
- an active agricultural area on the Donlick property
- Wetland WNY-SLH-035 [Palustrine Emergent (“PEM”)] via timber-mat and open-cut
- Wetland WNY-SLH-035 [Palustrine Scrub-Shrub (“PSS”)] via timber-mat and open-cut

Thence southeast 658 feet crossing:

- Stream SNY-SLH-029 via dry-ditch open-cut

Thence in a southerly direction 9,992 feet crossing:

- an existing wood trail

- Wetlands WNY-SLH-031 and WNY-SLH-030 and Pond PNY-SLH-004 via Horizontal Directional Drill (“HDD”)
- an existing fence
- existing storm culvert
- Trim Street (County Road 32) via conventional bore
- a communications line
- an existing fence
- 2 overhead electric lines
- Wetland WNY-SLH-027 via timber-mat and open-cut
- Stream SNY-SLH-026 via dry-ditch open-cut
- Wetland WNY-SLH-026 via timber-mat and open-cut
- Stream SNY-SLH-025 via dry-ditch open-cut
- Wetland WNY-SLH-025 via timber-mat and open-cut
- Stream SNY-SLH-024 via dry-ditch open-cut
- an existing wood trail
- a stone wall
- an existing wood trail
- a stone wall
- an existing wood trail
- Wetland WNY-SLH-023 via timber-mat and open-cut
- an existing wood trail
- Stream SNY-SLH-022 via dry-ditch open-cut
- 3 existing wood trails
- an overhead electric line
- an existing fence

- an existing storm culvert
- Bell Road via open-cut or conventional bore
- a communications line
- an overhead electric line
- an existing fence
- 2 existing wood trails
- Streams SNY-SLH-020 and SNY-SLH-021 via dry-ditch open-cut
- an existing wood trail

Thence southwest 522 feet.

Thence south 1,368 feet.

Thence southeast 1,509 feet crossing:

- the NY Mainline
- an existing fence
- an existing storm culvert
- John White Road via open-cut or conventional bore
- an existing fence
- the NY Mainline

Thence 1,519 feet southwest crossing:

- Stream SNY-SLH-018 via dry-ditch open-cut
- 7 existing wood trails

Thence south southwest 2,059 feet crossing:

- an existing wood trail
- Wetland WNY-SLH-018 via timber-mat and open-cut
- Streams SNY-SLH-014 and SNY-SLH-016 via dry-ditch open-cut

- 2 existing wood trails

Thence in a westerly direction 3,172 feet crossing:

- Wetland WNY-SLH-017 via timber-mat and open-cut
- an existing wood trail
- a stone wall
- an existing wood trail
- an existing fence
- an existing storm culvert
- Phillips Road via open-cut or conventional bore
- an existing fence
- the NY Mainline
- an overhead electric line

Thence south 112 feet crossing:

- an existing fence
- an existing storm culvert
- Farr Road via open-cut or conventional bore
- 3 existing fences

Thence southwest 808 feet crossing:

- 2 existing barbed wire fences
- an active agricultural area on the Nash property

Thence southeast 155 feet.

Thence southerly direction 7,865 feet crossing:

- Wetland WNY-SLH-014 via timber-mat and open-cut
- Stream SNY-SLH-010 via dry-ditch open-cut

- the NY Mainline
- an existing fence
- the NY Mainline 2 times
- via HDD
    - AR-2
    - Stream SNY-SLH-004 (Trowbridge Creek)
    - Stream SNY-SLH-003
    - Wetland WNY-SLH-008
    - the active agricultural area on the Bigelow property
    - Wetland WNY-SLH-006
- the NY Mainline
- an existing fence
- AR-2
- 2 existing fences
- the active agricultural area on the Goff property
- an existing wood trail
- WNY-SLH-004 via timber-mat and open-cut
- Blatchley Road via open-cut or conventional bore
- an overhead electric line
- a ditch
- existing barbed wire fence
- Wetland WNY-SLH-001 via timber-mat and open-cut
- an existing fence
- Wetland WNY-SJB-029 via timber-mat and open-cut

- Stream SNY-SJB-024 via dry-ditch open-cut
- Stream SNY-SJB-023 via dry-ditch open-cut

Thence southwest 283 feet.

Thence south 625 feet terminating at the NY/PA border.

The land use along the proposed NY Mainline Loop Pipeline route is described in the Field Summary, **Exhibit D**. The Field Summary includes pipeline specifications, road crossings, agriculture districts, and utility crossings. **Exhibit D-1**, Utility Crossing Plan, describes the measures that will be taken when crossing foreign utilities. An alternative analysis for the Project is provided as **Exhibit E**.

2.2.2 Cathodic Protection System

As with nearly all steel pipelines, corrosion must be controlled using an effective coating system and cathodic protection.

The NY Mainline Loop Pipeline will be a 16-inch diameter steel pipe manufactured to American Petroleum Institute 5L specifications. The external surface of the pipe will be coated with 15 mils of fusion bonded epoxy coating with some sections receiving an additional 30 mils of an abrasion resistant overcoat (i.e. at bored/ HDD crossings or areas where coating damage may occur during installation).

Williams will follow the State of NY's Rules and Regulations (16 NYCRR Part 255) which prescribe minimum safety requirements for the design, fabrication, installation, inspection, testing and operation and maintenance of natural gas pipelines.

Cathodic protection for the proposed NY Mainline Loop Pipeline will be provided through the existing (along the NY Mainline) impressed current system of rectifiers and ground beds. Rectifiers and remote anode ground beds will be used in an effort to maintain pipe-to-soil electrical potentials at levels sufficient to control corrosion. Through annual readings taken at cathodic test stations, the effectiveness of the existing cathodic protection system will be evaluated and appropriate measures taken (e.g. add ground beds, linear anodes, increase current output, etc.) to resolve deficiencies, as needed.

The NY Mainline Loop Pipeline will also be designed and constructed to minimize the risk of internal corrosion. The NY Mainline Loop Pipeline will be designed with pigging facilities to allow for routine cleaning as well as future in-line integrity ("smart pig") inspections. The pigging facilities have been designed with corrosion monitoring ports to allow for monitoring of internal corrosion through the use of corrosion coupons. The corrosion coupons will be periodically inspected for evidence of corrosion. The

monitoring will take place at the launcher/valve setting near the beginning of the NY Mainline Loop Pipeline (approximately 3,625 feet north of the PA/NY border), at the mainline block valve immediately south of SR 17/I-86, and at the receiver upstream of the Dunbar CS. Because the gas stream supplied to the corrosion monitoring ports feeds both the NY Mainline and the NY Mainline Loop Pipeline, the results of the inspections should be representative of the level of corrosion occurring in both pipelines. The results of the inspections will determine if more aggressive measures are required (e.g. corrosion inhibitor injection, more frequent pigging, etc.). In addition, operation of the NY Mainline Loop Pipeline will be monitored to ensure that the gas velocities are sufficient to sweep any liquids from low lying areas.

2.2.3 Gas Quality Measures

Williams currently gathers gas from wells in Wyoming and Susquehanna County, PA. The wells feeding the system deliver and blend a combination of dehydrated and non-dehydrated gas. Some field receipt points have facilities in place to dehydrate and compress gas for transport to transmission pipeline systems while some facilities simply measure and transport gas to other facilities for dehydration and compression. The services provided at each receipt point facility are dictated by the contracts in place with Williams' Customers.

Currently, gas quality is achieved through Williams' design, operations, and control measures that are integrated with the existing facilities located at the Dunbar CS and at various field receipt points in PA. Gas composition, water vapor content, and BTU values are measured before gas enters MPC. Gas is continually sampled and monitored by a gas chromatograph and moisture analyzer before it passes through and is measured by the existing 12-inch ultrasonic meter setting located at the Dunbar CS.

The gas enters the Dunbar CS through pig receivers immediately upstream of the station. Williams' current operations and maintenance practice involves regularly pigging the pipeline to remove free water that may be either produced from the gas wells feeding the pipeline or condensed out of the gas stream due to temperature and/or pressure drop. Pigging the pipeline with "scraper" or "polypigs" is an effective means of removing free water as well as cleaning the internal surface of the pipeline.

Once gas enters the Dunbar CS, it passes through a vertical inlet separator, a horizontal slug catcher, and the suction header. As part of the Dunbar CS Efficiency Project, high-efficiency inlet separators are being installed to remove free and entrained liquids at the inlet of the Dunbar CS. In addition, each individual compressor unit contains control systems to prevent free liquid from entering the compressor. Suction scrubbers on each individual unit detect free liquid and automatically shut down each compressor to prevent severe damage that could be caused to the compressor unit by

free liquid. This control ensures free liquid cannot pass through the compressor units and into MPC. As part of the Dunbar CS Efficiency Project, coalescing filters are being installed on the suction of individual compressor units in order to further reduce free liquids in the gas stream prior to compression.

After the gas is compressed, it is filtered for lube oil and particulate matter. It then enters the triethylene glycol ("TEG") dehydration contactors where the water vapor content is reduced to levels below 7 pounds of water per million cubic feet of gas. This is the threshold that is necessary to meet the transmission pipeline gas quality specifications of MPC.

Upon leaving the dehydration unit, the gas is filtered prior to delivery into MPC. As part of the Dunbar CS Efficiency Project, high-efficiency coalescing filters are being installed downstream of the dehydration contactors to capture entrained glycol prior to delivery to MPC.

Control systems are in place to continuously monitor the water content of the gas before it enters the MPC. If the water vapor content exceeds 5.5 pounds of water per million cubic feet, the control system initiates an alarm to notify Dunbar CS personnel that action is required. If the water vapor content exceeds 7 pounds of water per million cubic feet, MPC's control valve at the Dunbar CS has the ability to shut in all gas flowing to its pipeline.

This redundancy provides a considerable safety factor and ensures that "pipeline quality gas" is delivered as expected.

2.2.4 Visual, Noise, and Vehicular Traffic

The potential visual, noise, and traffic impacts associated with construction and operation of the Project are discussed below.

2.2.4.1 Visual Impacts

Potential visual impacts during construction will be temporary due to the fact that activities will be limited to the vicinity of the existing pipeline ROW, access roads, and existing gravel yards. Furthermore, the proposed NY Mainline Loop Pipeline parallels an existing pipeline and will utilize existing access roads to the greatest extent practicable, thus minimizing alterations to the existing visual landscape. Williams considered the location of nearby residences that could potentially have a view of construction activities and there are 26 residences within 500 feet of the proposed NY Mainline Loop Pipeline ROW (refer to Table 4.2). Of the 26 residences within 500 feet of the NY Mainline Loop Pipeline ROW, 15 have signed easement agreements for the Project and 1 is currently being negotiated for temporary workspace.

2.2.4.2 Noise Impacts

Project construction will generate sound that could temporarily affect the local environment. Construction of the proposed Project will include the following activities: tree clearing, excavation of the pipeline trench, earth moving, and typical sound associated with construction activities. Williams will comply with noise control measures identified in the EM&CS&P approved by the NYPSC in Case 06-T-1383 except hours of construction as discussed below. Noise impacts expected during construction will be minimized by the rural and forested nature of the proposed NY Mainline Loop Pipeline route. In order to minimize potential disturbance due to construction sound, construction activities will be concentrated from 7:30 am to 7:00 pm. However, HDD, hydrostatic testing, or other construction activities may require work to be continually conducted and uninterrupted outside of the proposed concentrated construction hours and the restricted hours outlined in the EM&SC&P. When construction activity will occur after 7 pm, Williams will notify the Town of Windsor, landowners, and adjacent neighbors. Williams respectfully requests approval from the NYPSC to deviate from the restricted construction hours set forth in Section 15.3.1 of the EM&CS&P.

To further mitigate construction sound, construction equipment manufacturers' sound muffling devices will be used and kept in good repair during construction. Blasting is not anticipated to be required; however, Williams has developed a blasting plan should the need arise. In the event that blasting is required during construction, the duly licensed contractor will provide 48 hours advance notice to all applicable and potentially-affected parties, including adjacent property owners (within 500 feet), local municipalities, and other parties as may be required by the Certificate conditions and applicable regulations, according to the Williams Blasting Plan, **Exhibit F**.

Noise as it relates to local laws is discussed further in Section 2.8.4.2.

2.2.4.3 Traffic Impacts

Vehicular and pedestrian traffic impacts during construction will be minimal due to the rural nature of the proposed Project route. Travel of heavy equipment, hauling trucks, and small commercial vehicles, to and from the construction ROW, will be concentrated during the hours of 7:00 a.m. to 7:00 p.m. The contractor selected by Williams will maintain at least 1 lane of traffic open for detours around construction at road crossing locations, in accordance with the Traffic and Transportation Plan, **Exhibit G**. A single lane of traffic will be maintained during all construction operations with the use of flagging and plating; no complete roadway closures are planned. If an unforeseen circumstance requires the use of a road closure, the Town of Windsor Highway Superintendent will be contacted to develop a suitable detour and other traffic mitigation measures prior to implementation. Williams will discuss this Traffic and Transportation

Plan with the Town of Windsor and seek their input. Dust control measures will be applied as frequently as is necessary by the Williams contractor in response to increased traffic and construction requirements.

Due to the size of the proposed Project, heavy construction is anticipated to occur throughout the entire duration of construction depending on timing of issuance of a Certificate and the conditions set forth in the easements with landowners. The use of heavy equipment on Broome County Roads is discussed further in Section 2.8.3.3.

Normal pipeline operations will consist of small commercial vehicles and light duty trucks routinely accessing the ROW for short periods of time.

2.3 Pipeline Safety, ROW Acquisition, Clearing Widths, Access, and Depth of Pipeline Cover

The proposed Project was designed to avoid or minimize potential impacts to persons, properties, and sensitive natural resources, while providing adequate work space for safe and efficient construction and operation of the NY Mainline Loop Pipeline. The route is located in a rural area with a low population density. Williams will construct the NY Mainline Loop Pipeline according to 16 NYCRR, Part 255 Transmission and Distribution of Gas and Title 49, CFR, Part 192, USDOT Regulations for Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards. These standards require that, among other things, in Class I and II locations (this Project is Class I only) x-rays of 10 percent and 15 percent of the welds, respectively, are completed. However, Williams will exceed these minimum requirements and perform nondestructive radiographic testing on 100 percent of the welds along the entire length of the NY Mainline Loop Pipeline.

The proposed Project will be installed through ROW easements, property rights acquisitions, and/or fee properties that have been obtained in preparation for construction of the NY Mainline. The easements acquired for the NY Mainline provided multiple line rights in anticipation of an additional 16-inch gathering pipeline. Additional temporary workspaces necessary for the safe and efficient construction have been or will be negotiated, acquired and/or purchased prior to construction. A ROW summary report is included as **Exhibit H**. Where possible, Williams proposes to maintain the existing 40-foot wide permanent ROW for both the existing NY Mainline and the proposed NY Mainline Loop Pipeline. However, the existing location of the NY Mainline in relation to the permanent ROW does not allow for industry standard pipeline spacing or ROW layout to be established. Therefore, concurrent with this Application Williams has submitted a Petition to the NYPSC for approval to modify the certified ROW in Case 10-T-0350 to establish industry standard pipeline spacing and ROW layout for the proposed Project.

As discussed in the Petition to modify the ROW certified in Case 10-T-0350, Williams proposes to expand the 40-foot permanent ROW on the Bigelow property (Parcel #229.02-1-15) to 60 feet in order to decrease the risk of damage to the existing 16-inch pipeline during the HDD crossing of Trowbridge Creek. The increased ROW will allow for greater separation between the existing NY Mainline and the NY Mainline Loop Pipeline. Williams has obtained a modified easement for the Bigelow property to accommodate this proposed expansion (**Exhibit H-27**).

Following Project construction, the 40 (or 60 foot on Bigelow)-foot wide permanent ROW will continue to be maintained by Williams. In addition to the permanent ROW, temporary ROW of 25 feet will be required along the length of the proposed NY Mainline Loop Pipeline. Furthermore, additional temporary workspace will be required where necessary for safe and reliable construction. Williams has identified temporary work space needed to facilitate pipeline construction and vehicle access and these areas are depicted on **Exhibit I** CAS. The proposed construction workspace will be cleared within the width of the permanent and temporary workspace, unless otherwise specified on **Exhibit I**.

Special construction techniques have been developed for installation of the proposed NY Mainline Loop Pipeline on the Farr property between Stations 153+94 and 165+79. The proposed NY Mainline Loop Pipeline would be installed without removing trees (greater than 6-inches in diameter at breast height) in this location by storing spoil in the construction ROW on the existing NY Mainline as well as among the trees (along the working side) within the temporary ROW. Sections of pipe will be welded and coated in the field along Hoadley Hill Road and moved into place after the trench is dug. Construction activities would occur in the construction ROW on top of the existing NY Mainline through this area. A work plan describing the special construction techniques through this area is provided in **Exhibit I-1**.

In order to prevent soil erosion along streams and wetlands, and in accordance with the EM&CS&P and relevant permits, vegetation (ground cover, shrubs, small trees, and large tree stumps) will be left in place within a 15-foot buffer area from each stream bank or wetland boundary until the time of crossing. In these areas, tree cutting will be limited to the use of chain saws. The buffer area will extend the entire width of the construction ROW, except for where vegetation grubbing and initial grading is necessary for equipment crossing along the travel-way. In such areas, erosion and sediment control structures will be installed.

Access to the NY Mainline Loop Pipeline ROW will be along existing public roads that cross the ROW, as well as private access roads within the property of private landowners. Private access roads are either existing roads, roads to be improved by Williams, or roads to be constructed as noted on **Exhibit I**. Williams has, or is,

negotiating rights to use these access roads as summarized in **Exhibit H**. Existing access roads that will only be used for construction will be graded and gravel will be added as necessary and restored following construction per Certificate Conditions and landowner easement agreements. For new temporary access roads, the site will be cleared of vegetation, erosion and sedimentation controls will be installed, and the site will be graded and graveled per Certificate Conditions and landowner easement agreements. Two access roads will be considered permanent for the purpose of access to the gate valve sites located along the NY Mainline Loop Pipeline. One of these permanent access roads, AR-5, is already an existing dirt/gravel road that will be improved through grading and the addition of gravel and maintained by Williams. Williams does not propose to expand the current width of AR-5 for permanent use. The second permanent access road consists of a portion of an existing dirt/gravel road and the creation of a new gravel road within the permanent ROW to access a gate valve. Impacts to ecosystem resources associated with both temporary and permanent access roads are expected to be minimal and are discussed further in Section 2.5.1.

Use of the existing bridge over Occanum Creek along AR-7 will be limited to use by light duty vehicles only due to concern with weight load limits. Access to the ROW will be pursuant to the Project's Traffic and Transportation Plan and easements negotiated with individual landowners.

Trench depth will be adequate to conform to Gas Safety Regulations (16 NYCRR Part 255.327). The proposed NY Mainline Loop Pipeline will be buried with a minimum of 3 feet of cover in all areas except the following:

- agricultural lands - minimum of 4 feet of cover,
- roads - minimum of 5 feet of cover,
- streams - minimum of 5 feet of cover, and
- Trowbridge Creek - minimum of 10 feet of cover.

2.4 Agency Field Verification

The existing NY Mainline was field reviewed by the NY Department of Public Service ("NYDPS") and a representative of the NY State Department of Agriculture and Markets ("NYDAM") on multiple occasions from January 2010 through August 2010 under NYPSC Case 10-T-0350. Members of the Williams Project team as well as members of the NYDPS and a representative from the NYDAM visited agricultural lands on August 16, 2012. On November 7, 2012, a pre-application field review was held and attended by representatives from the NYDPS, NYDAM, NYSDEC, and Williams Project team. Representatives from the United States Army Corps of Engineers (USACE)

Buffalo District were also invited but chose not to attend. As necessary, outcomes of those discussions were incorporated into this Application.

A second pre-application field review occurred on January 30 and 31, 2013 and was attended by members of the Williams Project team, and representative(s) of the NYDPS, NYSDEC, and the NYDAM. As necessary, outcomes of those discussions were incorporated into this Application.

On February 8, 2013, a site-specific field review was held with representatives from Williams, a pipeline contractor, and NYDPS to discuss construction on the Farr property (Station 153+94 to 165+79), particularly the ability to construct within the already cleared area without additional tree removal. Based on this meeting Williams believes that the proposed NY Mainline Loop Pipeline could be installed without removing trees (greater than 6-inches diameter at breast height) through the use of site-specific special construction methods. Additional information regarding the use of special construction techniques is discussed in the prior section (Section 2.3) and the visual impacts are further discussed in Section 2.5.1.13.

On September 26, 2013, Williams met with representatives of the NYDPS to review the revised construction plans for the portion of the proposed NY Mainline Loop Pipeline on the Collins (station 424+96 to 421+21) and Nash (station 421+21 to 403+98) properties. The existing NY Mainline crossed the Collins property and stream SNY-SLH-010 (unnamed tributary to Trowbridge Creek) via HDD which was done primarily at landowner request to avoid tree clearing. The results of Williams' geotechnical study led to a conclusion that the possibility of completing a successful HDD was highly unlikely. As a result, Williams chose a route that would allow a conventional lay across the Collins property and down the hillside onto the open pasture at the south end of the Nash property. The onsite meeting included a review of the route, 40-foot permanent ROW utilizing no temporary ROW (minimized clearing), as well as the temporary workspace needed to cross stream SNY-SLH-010 at the bottom of the hill.

2.5 Ecosystem, Visual, and Cultural Resources

2.5.1 Ecosystem Resources

2.5.1.1 Waterbodies

The Project was designed to minimize the environmental impacts associated with waterbody crossings. A number of the waterbodies crossed provide habitat for a range of aquatic species including invertebrates, fish, and other freshwater aquatic biota. There are a total of 64 waterbodies identified within the Project study area. These include 26 ephemeral streams, 14 intermittent streams, 19 perennial streams and 5 ponds. There are a total of 44 stream/pond crossings of the 64 identified features. The environmental impacts are expected to be minimal and limited to temporary,

construction-related disturbance. Stream crossing methods are discussed in Section 2.6.1. **Exhibit I**, CAS, shows waterbody locations and crossing locations. **Exhibit J**, Wetland Delineation and Stream Identification Report ("WDSIR"), provides a detailed report of water resources identified within the Project study area. **Table 1.0** lists the waterbodies that will be crossed, the area of the waterbody to be impacted, and the methods used to cross the waterbody.

Waterbody Classifications. In NY, surface waters and groundwater classifications are outlined in Title 6 of the NYCRR, Chapter X - Division of Water, Part 701: Classification-Surface Waters and Groundwaters. Waterbodies are assigned a classification in 6 NYCRR Parts 800 through 941. All waters of the state are provided a class and standard designation based on existing or expected best usage of each water or waterway segment.

The classifications for fresh surface waters for Class C and above are as follows:

- General Conditions Applying to All Water Classifications - The discharge of sewage, industrial waste or other wastes shall not cause impairment of the best usages of the receiving water as specified by the water classifications at the location of discharge and at other locations that may be affected by such discharge.

- Class AA Special ("AA-S") Fresh Surface Waters - The best usages of Class AA-S waters are: a source of water supply for drinking; culinary or food processing purposes; primary and secondary contact recreation; and fishing. The waters shall be suitable for fish, shellfish, and wildlife propagation and survival. These waters shall contain no floating solids, settle able solids, oil, sludge deposits, toxic wastes, deleterious substances, colored or other wastes or heated liquids attributable to sewage, industrial wastes or other wastes. There shall be no discharge or disposal of sewage, industrial wastes or other wastes into these waters. These waters shall contain no phosphorus and nitrogen in amounts that will result in growths of algae, weeds and slimes that will impair the waters for their best usages. There shall be no alteration to flow that will impair the waters for their best usages. There shall be no increase in turbidity that will cause a substantial visible contrast to natural conditions.

  Class A Special ("A-S") Fresh Surface Waters - The best usages of Class A-S waters are: a source of water supply for drinking; culinary or food processing purposes; primary and secondary contact recreation; and fishing. The waters shall be suitable for fish, shellfish, and wildlife propagation and survival. This classification may be given to those international boundary waters that, if subjected to approved treatment, equal to coagulation, sedimentation, filtration and disinfection with additional treatment, if necessary, to reduce naturally present impurities, meet or will meet NY State Department of Health ("NYDOH") drinking water standards and are or will be considered safe and satisfactory for drinking water purposes.

Table 1.0 Stream and Waterbody Crossings

GAI Field and Map Designation	Mile Post	Stationing	Waterbody	Stream Type	State Water Quality Classification[1]	Trout Water[2]	Crossing Width (feet)[3]	Length of Stream Within Construction ROW (feet)[4]		Construction ROW Crossing Area (Temporary Impacts) (square feet)[5]		Operation ROW Crossing Area (Permanent Impacts) (square feet)[5,6]		Crossed By	Crossing Construction Method
SNY-SJB-001	0.19	10+42	Unnamed Tributary to Occanum Creek	Intermittent	Regulation Code Part 931-914- Class C - Standard C	No	5	65	Total = 126	325	Total = 630	0	Total = 0	Pipeline	Dry-Ditch Open-Cut[7]
SNY-SJB-001	0.2	10+60; AR-9	Unnamed Tributary to Occanum Creek	Intermittent	Regulation Code Part 931-914- Class C - Standard C	No	5	61		305		0		AR-9	Existing 24-Inch Diameter Plastic Culvert[8]
SNY-SJB-002	0.62	32+85	Unnamed Tributary to Occanum Creek	Intermittent	Regulation Code Part 931-914- Class C - Standard C	No	6	102		612		0		Pipeline	Dry-Ditch Open-Cut
SNY-SJB-004	0.70	37+11	Unnamed Tributary to Occanum Creek	Perennial	Regulation Code Part 931-914- Class C - Standard C	No	4	176		704		0		Pipeline	Dry-Ditch Open-Cut
SNY-SJB-005	0.90	52+30	Unnamed Tributary to Occanum Creek	Perennial	Regulation Code Part 931-914- Class C - Standard C	No	11.5	106		1,219		0		Pipeline	Dry-Ditch Open-Cut
SNY-SJB-006	0.92	49+00; AR-8	Occanum Creek	Perennial	Regulation Code Part 931-914- Class C - Standard C	No	18	34	Total = 210	507	Total = 5,260	0	Total = 0	AR-8	Temporary Bridge or Temporary Rock Flume Bridge
SNY-SJB-006	1.19	62+93	Occanum Creek	Perennial	Regulation Code Part 931-914- Class C - Standard C	No	60	128		3,877		0		Pipeline	Dry-Ditch Open-Cut
SNY-SJB-006	1.17	62+00; AR-7	Occanum Creek	Perennial	Regulation Code Part 931-914- Class C - Standard C	No	16	48		876		0		AR-7	Existing Bridge[9]
SNY-SJB-007	1.38	73+00; AR-8	Unnamed Tributary to Occanum Creek	Intermittent	Regulation Code Part 931-914- Class C - Standard C	No	4	51		204		0		AR-8	Temporary Bridge or Temporary Rock Flume Bridge
SNY-SJB-008	1.21	64+33	Unnamed Tributary to Occanum Creek	Perennial	Regulation Code Part 931-914- Class C - Standard C	No	8	96		768		0		Pipeline	Dry-Ditch Open-Cut
SNY-SJB-009	0.19	10+34	Unnamed Tributary to Occanum Creek	Ephemeral	Regulation Code Part 931-914- Class C - Standard C	No	2	55		110		0		Pipeline	Dry-Ditch Open-Cut
SNY-SJB-010	0.23	12+42	Unnamed Tributary to Occanum Creek	Ephemeral	Regulation Code Part 931-914- Class C - Standard C	No	3	56	Total = 164	168	Total = 492	0	Total = 0	Pipeline	Dry-Ditch Open-Cut
SNY-SJB-010	0.24	12+75; AR-9	Unnamed Tributary to Occanum Creek	Ephemeral	Regulation Code Part 931-914- Class C - Standard C	No	3	108		324		0		AR-9	Existing18-Inch Diameter Plastic Culvert
SNY-SJB-011	1.13	60+00; AR-7	Unnamed Tributary to Occanum Creek	Intermittent	Regulation Code Part 931-914- Class C - Standard C	No	6	130		780		0		AR-7 Construction ROW	Temporary Bridge or Temporary Rock Flume Bridge
SNY-SJB-013	1.50	79+89	Unnamed Tributary to Occanum Creek	Ephemeral	Regulation Code Part 931-914- Class C - Standard C	No	2	94		188		0		Pipeline	Dry-Ditch Open-Cut
SNY-SJB-014	1.49	79+00	Unnamed Tributary to Occanum Creek	Ephemeral	Regulation Code Part 931-914- Class C - Standard C	No	2	78		156		0		Pipeline	Dry-Ditch Open-Cut
SNY-SJB-015	1.48	78+61	Unnamed Tributary to Occanum Creek	Ephemeral	Regulation Code Part 931-914- Class C - Standard C	No	2	63		126		0		Pipeline	Dry-Ditch Open-Cut
SNY-SJB-016	1.45	76+60	Unnamed Tributary to Occanum Creek	Intermittent	Regulation Code Part 931-914- Class C - Standard C	No	3	74		222		0		Pipeline	Dry-Ditch Open-Cut
SNY-SJB-017	1.43	75+96	Unnamed Tributary to Occanum Creek	Ephemeral	Regulation Code Part 931-914- Class C - Standard C	No	4	70		280		0		Pipeline	Dry-Ditch Open-Cut
SNY-SJB-018	2.40	130+19; AR-5	Unnamed Tributary to Occanum Creek	Intermittent	Regulation Code Part 931-914- Class C - Standard C	No	4	43		172		0		AR-5[10]	Existing 36-Inch Diameter Plastic Culvert
SNY-SJB-019	2.40	130+19; AR-5	Unnamed Tributary to Occanum Creek	Perennial	Regulation Code Part 931-914- Class C - Standard C	No	20	45	Total = 108	873	Total = 1,936	0	Total = 0	AR-5	Existing 60-Inch Diameter Metal Culvert
SNY-SJB-019	2.64	139+73	Unnamed Tributary to Occanum Creek	Perennial	Regulation Code Part 931-914- Class C - Standard C	No	17	63		1,063		0		Pipeline	Dry-Ditch Open-Cut

Table 1.0 (Continued)

GAI Field and Map Designation	Mile Post	Stationing	Waterbody	Stream Type	State Water Quality Classification[1]	Trout Water[2]	Crossing Width (feet)[3]	Length of Stream Within Construction ROW (feet)[4]	Construction ROW Crossing Area (Temporary Impacts) (square feet)[5]	Operation ROW Crossing Area (Temporary Impacts) (square feet)[5,6]	Crossed By	Crossing Construction Method
SNY-SJB-020	2.40	129+05	Unnamed Tributary to Occanum Creek	Ephemeral	Regulation Code Part 931-914- Class C - Standard C	No	4	19	76	0	Construction ROW	Guided Conventional Bore[9]
SNY-SJB-021	2.40	130+25	Unnamed Tributary to Occanum Creek	Intermittent	Regulation Code Part 931-914- Class C - Standard C	No	3	7	21	0	AR-5 Construction ROW	Temporary Bridge or Temporary Rock Flume Bridge
SNY-SJB-022	2.51	133+00; AR-5	Unnamed Tributary to Occanum Creek	Ephemeral	Regulation Code Part 931-914- Class C - Standard C	No	3	93	279	0	AR-5	Existing 12-Inch Diameter Metal Culvert
SNY-SJB-023	9.31	491+63	Unnamed Tributary to Trowbridge Creek	Intermittent	Regulation Code Part 931-903- Class C - Standard C	No	4	76	304	0	Pipeline	Dry-Ditch Open-Cut
SNY-SJB-024	9.27	489+51	Unnamed Tributary to Trowbridge Creek	Ephemeral	Regulation Code Part 931-903- Class C - Standard C	No	2	60	120	0	Pipeline	Dry-Ditch Open-Cut
SNY-SLH-001	8.82	466+11	Unnamed Tributary to Trowbridge Creek	Ephemeral	Regulation Code Part 931-903- Class C - Standard C	No	5	65	325	0	Pipeline	Dry-Ditch Open-Cut
SNY-SLH-003	8.45	446+55	Unnamed Tributary to Trowbridge Creek	Ephemeral	Regulation Code Part 931-903- Class C - Standard C	No	6	128	768	0	Pipeline	HDD[9]
SNY-SLH-004	8.42	444+75	Trowbridge Creek	Perennial	Regulation Code Part 931-903- Class C - Standard C	No	79	70	4,794	0	Pipeline	HDD[9]
SNY-SLH-004	8.40	443+78; AR-2	Trowbridge Creek	Perennial	Regulation Code Part 931-903- Class C - Standard C	No	36	55	1,550	0	AR-2	Temporary Bridge or Temporary Rock Flume Bridge
SNY-SLH-006	7.40	394+20	Unnamed Tributary to Trowbridge Creek	Ephemeral	Regulation Code Part 931-903- Class C - Standard C	No	2	114	228	0	Construction ROW	Temporary Bridge or Temporary Rock Flume Bridge
SNY-SLH-010	7.95	419+79	Unnamed Tributary to Trowbridge Creek	Perennial	Regulation Code Part 931-903- Class C - Standard C	No	8	182	1,456	0	Pipeline	Dry-Ditch Open-Cut
SNY-SLH-014	6.92	365+75	Unnamed Tributary to Trowbridge Creek	Perennial	Regulation Code Part 931-903- Class C - Standard C	No	6	98	588	0	Pipeline	Dry-Ditch Open-Cut
SNY-SLH-015	6.80	362+50	Unnamed Tributary to Trowbridge Creek	Perennial	Regulation Code Part 931-903- Class C - Standard C	No	3.5	29	102	0	Construction ROW	Temporary Bridge or Temporary Rock Flume Bridge
SNY-SLH-016	6.95	366+96	Unnamed Tributary to Trowbridge Creek	Ephemeral	Regulation Code Part 931-903- Class C - Standard C	No	4	95	380	0	Pipeline	Dry-Ditch Open-Cut
SNY-SLH-018	6.45	341+04	Unnamed Tributary to Trowbridge Creek	Perennial	Regulation Code Part 931-903- Class C - Standard C	No	5	74	370	0	Pipeline	Dry-Ditch Open-Cut
SNY-SLH-020	5.55	293+46	Unnamed Tributary to Trowbridge Creek	Perennial	Regulation Code Part 931-903- Class C - Standard C	No	20	103	1,914	0	Pipeline	Dry-Ditch Open-Cut
SNY-SLH-021	4.92	259+96	Unnamed Tributary to Trowbridge Creek	Perennial	Regulation Code Part 931-903- Class C - Standard C	No	9	71	598	0	Pipeline	Dry-Ditch Open-Cut
SNY-SLH-022	4.93	260+49	Unnamed Tributary to Trowbridge Creek	Perennial	Regulation Code Part 931-903- Class C - Standard C	No	11	75	753	0	Pipeline	Dry-Ditch Open-Cut
SNY-SLH-023	4.91	259+50	Unnamed Tributary to Trowbridge Creek	Perennial	Regulation code Part 913-903- Class C - Standard C	No	4	14	56	0	Construction ROW	Temporary Bridge or Temporary Rock Flume Bridge
SNY-SLH-024	4.49	237+47	Unnamed Tributary to Trowbridge Creek	Perennial	Regulation Code Part 931-903- Class C - Standard C	No	4	89	356	0	Pipeline	Dry-Ditch Open-Cut
SNY-SLH-025	4.43	234+36	Unnamed Tributary to Trowbridge Creek	Perennial	Regulation Code Part 931-903- Class C - Standard C	No	5	65	325	0	Pipeline	Dry-Ditch Open-Cut

Total = 125

Total=6,344

Total=0

Table 1.0 (Continued)

GAI Field and Map Designation	Mile Post	Stationing	Waterbody	Stream Type	State Water Quality Classification[1]	Trout Water[2]	Crossing Width (feet)[3]	Length of Stream Within Construction ROW (feet)[4]	Construction ROW Crossing Area (Temporary Impacts) (square feet)[5]	Operation ROW Crossing Area (Temporary Impacts) (square feet)[5,6]	Crossed By	Crossing Construction Method
SNY-SLH-026	4.38	231+46	Unnamed Tributary to Trowbridge Creek	Intermittent	Regulation Code Part 931-903- Class C - Standard C	No	4	72	288	0	Pipeline	Dry-Ditch Open-Cut
SNY-SLH-027	4.28	226+00; AR-3	Unnamed Tributary to Trowbridge Creek	Intermittent	Regulation Code Part 931-903- Class C - Standard C	No	3	45	135	0	AR-3	Existing 15-Inch Diameter Plastic Culvert
SNY-SLH-029	3.73	197+15	Unnamed Tributary to Occanum Creek	Intermittent	Regulation Code Part 931-914- Class C - Standard C	No	3	67	201	0	Pipeline	Dry-Ditch Open-Cut
SNY-SLH-034[11]	2.80	143+50	Unnamed Tributary to Occanum Creek	Ephemeral	Regulation Code Part 931-914- Class C - Standard C	No	5	254	1,270	0	Construction ROW	Temporary Bridge or Temporary Rock Flume Bridge
SNY-SLH-036	0.30	116+00; AR 6-A	Unnamed Tributary to Occanum Creek	Perennial	Regulation Code Part 931-903- Class C - Standard C	No	4.75	40	190	0	AR-6A	Existing 24-Inch Diameter Plastic Culvert
PNY-SLH-004	4.10	219+00	N/A	N/A	N/A	N/A	9	9	850	0	Pipeline	HDD[9]
						Totals	**457.75**	**3,815**	**32,156**	**0**		

Notes:

1 As classified by Title 6 of the NY Code of Rules and Regulations (NYCRR) Part 701: Classification-Surface Waters and Groundwaters. Class C (C) fresh surface waters - The best usage of Class C waters is fishing. These waters shall be suitable for fish, shellfish, and wildlife propagation and survival. The water quality shall be suitable for primary and secondary contact recreation, although other factors may limit the use for these purposes. Trout waters (T or TS)- The symbol (T), appearing in an entry in the “standards” column in the classification tables of Parts 800 through 941 of Title 6 NYCRR, means that the classified waters in that specific item are trout waters. Any water quality standard, guidance value, or thermal criterion that specifically refers to trout or trout waters, or trout spawning waters applies. The symbol (TS), appearing in an entry in the “standards” column in the classification tables of Parts 800 through 941 of Title 6 NYCRR, means that the classified waters in that specific item are trout spawning waters. Any water quality standard, guidance value, or thermal criterion that specifically refers to trout, trout spawning, trout waters, or trout spawning waters applies.

2 Trout waters are waters that provide habitat in which trout can survive and grow within a normal range on a year-round basis, or on a year-round basis except periods of time during which almost all of the trout inhabiting such waters could and would temporarily retreat into and survive in adjoining or tributary waters due to natural circumstances. When these conditions exist or have been met a water may be classified as a trout water and identified with the symbol (T), appearing in an entry in the “standards” column in the classification tables of Parts 800 through 941 of Title 6.

3 Stream width as measured from top of banks during the field investigation.

4 Crossing length refers to the linear length of the stream within the Project construction ROW.

5 Crossing area as measured in Geographic Information System using the Global Positioning System data gathered during the field investigation.

6 The buried NY Mainline Loop Pipeline will have 5 feet of cover below the streambed except Trowbridge Creek will be buried with a minimum of 10 feet of cover. Vegetation in the ROW along stream banks will be allowed to revegetate to herbaceous conditions; therefore, no permanent impacts are anticipated. Stream bed and banks will be restored to pre-construction conditions.

7 Stream crossings will be crossed using an approved dry-ditch crossing per the NYPSC EM&CS&P and applicable permits and approvals and the actual method (e.g. dam and pump/flume) to be used will be decided by the contractor at the time of construction.

8 Existing culverts may be upgraded as necessary during construction and if replaced, a culvert of the same material, length, and diameter will be used.

9 Although impacts to these resources are included, disturbance to these waterbodies during construction is not anticipated, however they are included should the need arise to conduct in-stream work during Project construction.

10 AR-5 will be a permanent access road. The road width will not increase, however, general upgrades will be made such as minor re-grading and addition of gravel where necessary.

11 Due to the need to construct the NY Mainline Loop Pipeline within the existing 40 foot permanent ROW at this location, the ROW encroaches slightly on this resource for an extended distance. However, it is expected that proper erosion control devices will be installed to protect this resource as constructing over top of it adds little usable construction space.

- Class AA Fresh Surface Waters - The best usages of Class AA waters are: a source of water supply for drinking; culinary or food processing purposes; primary and secondary contact recreation; and fishing. The waters shall be suitable for fish, shellfish, and wildlife propagation and survival. This classification may be given to those waters that, if subjected to approve disinfection treatment, with additional treatment if necessary to remove naturally present impurities, meet or will meet NYDOH drinking water standards and are or will be considered safe and satisfactory for drinking water purposes.

- Class A Fresh Surface Waters - The best usages of Class A waters are: a source of water supply for drinking; culinary or food processing purposes; primary and secondary contact recreation; and fishing. The waters shall be suitable for fish, shellfish, and wildlife propagation and survival. This classification may be given to those waters that, if subjected to approved treatment equal to coagulation, sedimentation, filtration and disinfection, with additional treatment if necessary to reduce naturally present impurities, meet or will meet NYDOH drinking water standards and are or will be considered safe and satisfactory for drinking water purposes.

- Class B Fresh Surface Waters - The best usages of Class B waters are primary and secondary contact recreation and fishing. These waters shall be suitable for fish, shellfish, and wildlife propagation and survival. The best usage of Class C waters is fishing. These waters shall be suitable for fish, shellfish, and wildlife propagation and survival. The water quality shall be suitable for primary and secondary contact recreation, although other factors may limit the use for these purposes.

- Class C Fresh Surface Waters - The best usage of Class C waters is fishing. These waters shall be suitable for fish, shellfish, and wildlife propagation and survival. The water quality shall be suitable for primary and secondary contact recreation, although other factors may limit the use for these purposes.

- Trout Waters (T or TS) - The symbol (“T”), appearing in an entry in the "standards" column in the classification tables of 6 NYCRR Parts 800 through 941, means that the classified waters in that specific Item are trout waters. Any water quality standard, guidance value, or thermal criterion that specifically refers to trout or trout waters applies. The symbol (“TS”), appearing in an entry in the "standards" column in the classification tables of 6 NYCRR Parts 800 through 941, means that the classified waters in that specific Item are trout spawning waters. Any water quality standard, guidance value, or thermal criterion that specifically refers to trout, trout spawning, trout waters, or trout spawning waters applies.

Special requirements apply to sustain waters that support these valuable and sensitive fisheries resources. Small ponds and lakes with a surface area of 10 acres or less, located within the course of a stream, are considered to be part of a stream and are subject to regulation under the stream protection category of Protection of Waters. Certain waters of the state are protected on the basis of their classification. Streams and small waterbodies located in the course of a stream that are designated as C(T) or higher (i.e., C(TS), B, or A) are collectively referred to as "protected streams" and are subject to the stream protection provisions of the Protection of Waters regulations (ECL Article 15-0501). A Protection of Waters Permit is required for disturbing the bed or banks of a stream with a classification and standard of C(T) or higher (disturbance may be either temporary or permanent in nature).

A Stream Protection Article 15 permit from the NYSDEC is not required for this Project. Based on a review of the USACE Buffalo District Nationwide Permit 12 ("NWP-12") conditions on in-stream construction activities in NY, and per consultation with the NYSDEC Region 7 Bureau of Habitat, construction activities are restricted in natural trout and salmon streams between October 1 and May 15, in stocked trout streams between October 1 and July 15, and in warm water fisheries between March 15 and July 15. Williams hereby requests permission from the NYPSC to conduct in-stream construction during the restriction dates of May 1 through July 15. As discussed in Section 2.1 above, the system capacity constraints are driving the need to expand the NY Mainline. In order to alleviate this constraint, the construction of the NY Mainline Loop Pipeline will need to begin as soon as the appropriate approvals are obtained. Based on the desired construction start date (May 1, 2014), Williams would need to cross the subject streams prior to July 15 to allow construction to progress in an efficient manner. Should approvals be received beyond June 1, construction progress would likely place the timing of the stream crossings outside of the restriction dates and would no longer require a waiver.

According to the NYSDEC's Environmental Resource Mapper and 6 NYCRR, Parts 800 through 941, the streams that the Project crosses are classified as Class C and Standard C.

Watershed. The Project is located within the Susquehanna River Basin. This watershed has a regulatory commission, the Susquehanna River Basin Commission, which has been charged with monitoring water withdrawals within the watershed. Water withdrawals are not proposed for the Project. The Project is located in the Upper Susquehanna Watershed [Hydrologic Unit Code # ("HUC#") 02050101]. The proposed NY Mainline Loop Pipeline, access roads, and Pipe Storage Yards #2 and #3 are located within the Occanum Creek-Susquehanna River (HUC #020501011208) and Trowbridge Creek (HUC #020501011307) watersheds. Pipe Storage Yard #1 is located within the Park Creek-Susquehanna River watershed (HUC #020501011313). **Exhibit K,** Watershed Boundary Map, identifies the watershed boundaries in relation to the Project.

2.5.1.2 Wetlands

The Freshwater Wetlands Act (Article 24 of the ECL), protects wetlands 12.4 acres (10 hectares) or larger. Wetlands of smaller size may be protected if they are considered to be of unusual local importance. The USACE also protects wetlands, irrespective of size, under Section 404 of the Clean Water Act (CWA).

The United States Fish and Wildlife Service's ("USFWS") National Wetlands Inventory and the NY State Freshwater Wetlands Map were reviewed by GAI Consultants, Inc. ("GAI") who also conducted wetland delineations for the Project in September, October, and November 2012 and February and September 2013. The NYSDEC Environmental Resources Mapper was also reviewed for the presence of NYSDEC regulated wetlands within 500 feet of the study area. NYSDEC regulated wetlands were not identified during field studies nor were they identified within the Project area on the NYSDEC Environmental Resource Mapper. The NYSDEC Wetlands map is located the WDSIR, **Exhibit J**.

GAI conducted environmental field studies for the Project and identified and delineated 71 wetlands within the Project study area. **Exhibit I**, CAS, shows the locations of these wetlands along the proposed NY Mainline Loop Pipeline route. **Exhibit J**, WDSIR dated September, 2013, describes each identified wetland in detail. Of the 71 delineated wetlands within the Project study area, 23 will be crossed by the proposed NY Mainline Loop Pipeline, 24 occur within the Project construction work limits, and 4 will be crossed by existing or proposed temporary access roads. The total acreage of wetlands that occur within the construction work limits is 2.07 acres. The size of delineated wetlands ranges from less than 0.01-acre to 0.8-acre. None of the wetlands identified as part of this Project are identified as regulated wetlands by the NYSDEC as discussed in the Project's WDSIR, **Exhibit J**. The environmental impacts are expected to be minimal and substantially limited to temporary, construction-related disturbance. See **Table 2.0**, Wetland Crossings, for detailed information related to each wetland crossed by the Project, the method of crossing, and the area to be impacted by construction.

Per EM&CS&P specifications, methods to cross wetlands during construction include the open-cut dry crossing, open-cut wet crossing with "push and pull" or "drag section" techniques, conventional bore, or HDD. For wetlands proposed to be crossed via open-cut, the specific method and technique will be dependent on whether the wetland area is dry, saturated or inundated at the time of construction. Mats will be used on all soft soils to avoid making ruts from heavy machinery. Where wetlands are proposed to be crossed using the HDD/Conventional Bore method the entry/exit points will be located at least 25 feet from the wetland edge where feasible. Prior to commencement of construction, a CWA Section 404 NWP-12 (Utility Line Activities) Pre-Construction Notification ("PCN"), detailing impacts and proposed crossing methods, will be completed and submitted to the USACE Buffalo District for approval.

Table 2.0 Wetland Crossings

GAI Field and Map Designation	Crossed by	Acreage Affected by Construction (temporary impacts)			Acreage Affected by Operation (conversion impacts)[1]			Length of Pipeline Centerline or Access Road Centerline Crossing (feet)	Crossing Construction Method
		Cowardin Designation			Cowardin Designation				
		Palustrine Emergent	Palustrine Scrub-Shrub	Palustrine Forested	Palustrine Emergent[2]	Palustrine Scrub-Shrub	Palustrine Forested		
WNY-SJB-001	AR-9 Construction ROW	< 0.01[3]	-	-	0.00	-	-	0	Timber Mat
WNY-SJB-002	Construction ROW	< 0.01	-	-	0.00	-	-	0	Timber Mat
WNY-SJB-005	Construction ROW	0.02	-	-	0.00	-	-	0	Timber Mat
WNY-SJB-006	Construction ROW	0.01	-	-	0.00	-	-	0	Timber Mat
WNY-SJB-007	Construction ROW	0.01	-	-	0.00	-	-	0	Timber Mat
WNY-SJB-008	Construction ROW	< 0.01	-	-	0.00	-	-	0	Timber Mat
WNY-SJB-009	Construction ROW	0.01	-	-	0.00	-	-	0	Timber Mat
WNY-SJB-010	Construction ROW	0.01	-	-	0.00	-	-	0	Timber Mat
WNY-SJB-012	Construction ROW	0.09	-	< 0.01	0.00	-	0.00	0	Timber Mat
WNY-SJB-014	AR-8	0.09	-	-	0.00	-	-	144	Timber Mat
WNY-SJB-016	Pipeline	0.13	-	-	0.00	-	-	96	Timber Mat and Open-Cut
WNY-SJB-017	Pipeline	0.03	-	-	0.00	-	-	15	Timber Mat and Open-Cut
WNY-SJB-018	Pipeline	0.04	-	-	0.00	-	-	25	Timber Mat and Open-Cut
WNY-SJB-019	Construction ROW	0.02	-	-	0.00	-	-	0	Timber Mat
WNY-SJB-020	Construction ROW	0.05	-	-	0.00	-	-	0	Timber Mat
WNY-SJB-021	Construction ROW	-	-	0.02	-	-	< 0.01	0	Timber Mat
WNY-SJB-022	Pipeline	-	0.01	-	-	0.01	-	2	Timber Mat and Open-Cut
WNY-SJB-023	Pipeline	-	0.05	-	-	0.03	-	40	Timber Mat and Open-Cut
WNY-SJB-024	Construction ROW	0.03	-	-	0.00	-	-	0	Timber Mat
WNY-SJB-026	Construction ROW	< 0.01	-	-	0.00	-	-	0	Timber Mat
WNY-SJB-027	AR-5 Construction ROW	0.01	-	-	0.00	-	-	0	Timber Mat
WNY-SJB-028	Pipeline	0.03	-	-	0.00	-	-	26	Guided conventional bore[4]
WNY-SJB-029	Pipeline	0.01	0.01	-	0.00	0.00	-	4	Timber Mat and Open-Cut
WNY-SJB-030	AR-6	0.03	-	-	0.00	-	-	39	Timber Mat
WNY-SJB-031	AR-2A Construction ROW	0.02	-	-	0.00	-	-	0	Timber Mat
WNY-SLH-001	Pipeline	0.26	-	-	0.00	-	-	149	Timber Mat and Open-Cut
WNY-SLH-004	Pipeline	-	0.03	-	-	0.02	-	21	Timber Mat and Open-Cut
WNY-SLH-005	Construction ROW	0.01	-	-	0.00	-	-	0	Timber Mat
WNY-SLH-006	Pipeline	0.02	-	-	0.00	-	-	40	Timber Mat and HDD

Table 2.0 (Continued)

GAI Field and Map Designation	Crossed by	Acreage Affected by Construction (temporary impacts)			Acreage Affected by Operation (conversion impacts)[1]			Length of Pipeline Centerline or Access Road Centerline Crossing (feet)	Crossing Construction Method
		Cowardin Designation			Cowardin Designation				
		Palustrine Emergent	Palustrine Scrub-Shrub	Palustrine Forested	Palustrine Emergent[2]	Palustrine Scrub-Shrub	Palustrine Forested		
WNY-SLH-007	Construction ROW	0.01	-	-	0.00	-	-	0	Timber Mat
WNY-SLH-008	Pipeline	0.05	-	-	0.00	-	-	15	HDD[4]
WNY-SLH-009	Construction ROW	0.04	-	-	0.00	-	-	0	Timber Mat
WNY-SLH-012	Construction ROW	<0.01	-	-	0.00	-	-	0	Timber Mat
WNY-SLH-014	Pipeline	0.09	-	-	0.00	-	-	61	Timber Mat and Open-Cut
WNY-SLH-017	Pipeline	0.12	-	< 0.01	0.00	-	< 0.01	63	Timber Mat and Open-Cut
WNY-SLH-018	Pipeline	0.04	-	-	0.00	-	-	14	Timber Mat and Open-Cut
WNY-SLH-020	Construction ROW	0.01	-	-	0.00	-	-	0	Timber Mat
WNY-SLH-023	Pipeline	0.06	-	-	0.00	-	-	30	Timber Mat and Open-Cut
WNY-SLH-024	Construction ROW	< 0.01	-	-	0.00	-	-	0	Timber Mat
WNY-SLH-025	Pipeline	0.05	-	-	0.00	-	-	48	Timber Mat and Open-Cut
WNY-SLH-026	Pipeline	0.02	-	-	0.00	-	-	17	Timber Mat and Open-Cut
WNY-SLH-027	Pipeline	0.02	-	-	0.00	-	-	10	Timber Mat and Open-Cut
WNY-SLH-030	Pipeline	0.08	-	-	0.00	-	-	93	HDD[4]
WNY-SLH-031	Pipeline	0.03	-	-	0.00	-	-	49	HDD[4]
WNY-SLH-033	Construction ROW	0.03	-	-	0.00	-	-	0	Timber Mat
WNY-SLH-034	Construction ROW	0.02	-	-	0.00	-	-	0	Timber Mat
WNY-SLH-035	Pipeline	0.04	0.03	-	0.00	0.02	-	46	Timber Mat and Open-Cut
WNY-SLH-036	Pipeline and AR-4 Construction ROW	0.07	< 0.01	-	0.00	0.00	-	49	Timber Mat and Open-Cut
WNY-SLH-037	Construction ROW	< 0.01	-	-	0.00	-	-	0	Timber Mat
WNY-SLH-039	Pipeline	0.03	-	-	0.00	-	-	28	Timber Mat and Open-Cut
WNY-SLH-040	AR-6A	0.08	-	-	0.00	-	-	118	Timber Mat
	Totals	**1.89**	**0.14**	**0.04**	**0.00**	**0.08**	**0.02**	**1,242**	

Notes:

1 No fill will be placed into wetlands and grading in these areas will be restored to pre-construction conditions. PSS/Palustrine Forested ("PFO") wetlands will be converted to PEM wetlands.
2 PEM Wetlands will be restored to pre-construction conditions; therefore, no permanent impacts are anticipated.
3 For impacts less than 0.01-acre, 0.01 is added to the total impact number.
4 Although impacts to these resources are included, disturbance to these wetlands during construction is not anticipated, however they are included should the need arise to conduct work within these wetlands during Project construction.

2.5.1.3 Wetland Mitigation

Williams has designed the Project in a manner that minimizes wetland impacts to the greatest extent possible (through avoidance and impact minimization) and does not anticipate compensatory mitigation (wetland enhancement or creation) to be required as part of this Project. Prior to construction, Williams will submit a PCN under NWP-12 (Utility Line Activities), detailing impacts associated with the Project to the USACE Buffalo District. Based on stream and wetland impacts identified in Tables 1.0 and 2.0, respectively, the Project's permanent impacts are below the thresholds that would require compensatory mitigation. Williams will continue to work with the USACE Buffalo District as the PCN is developed and after the submission of the PCN to determine if compensatory mitigation is required. If the USACE determines that compensatory mitigation is required, Williams will develop a compensatory mitigation plan in coordination with the USACE Buffalo District and provide a copy of that plan to the NYPSC upon approval of the USACE.

Williams will also integrate and implement wetland crossing and restoration techniques described in Section 11 of the EM&CS&P as well as the Project's ROW Restoration and Revegetation Plan (**Exhibit S**), State Pollution Discharge Elimination System Permit, NWP-12, and any recommendations of the NYDPS and NYSDEC that are incorporated in the Article VII Certificate.

2.5.1.4 Springs and Wells

The proposed NY Mainline Loop Pipeline route was adjusted, when necessary, to avoid direct impact to springs and wells located within the Project's ROW. The location of a field identified spring house located within 200 feet of the proposed ROW is shown in **Table 3.0**. Only 1 spring house was identified within 200 feet of the proposed ROW, no water wells were identified. The location of the field identified spring house is provided as **Exhibit L**.

Table 3.0 Field Identified Spring and Water Well Locations within 200 Feet of the NY Mainline Loop Pipeline ROW

County	Tax ID No.	Owner's Name	Street	Approximate Distance from Work Areas (feet)
Broome	164.04-1-28.1	Fox Farm, LLC	Fox Farm Road	46

In verifying the location of wells within the NY Mainline Loop Pipeline ROW, Williams searched within 200 feet of the ROW for state listed wells. Based on a review of online data, there are no known NYSDEC state listed wells located in the Town of Windsor

within 200 feet of the NY Mainline Loop Pipeline ROW (NYSDEC, 2011). Additional springs and wells may be present in the vicinity that are not present in the NYSDEC database.

Williams agrees to conduct pre-and post-construction testing of identified water, streams, ponds, springs, and other sources located within 500 feet of the NY Mainline Loop Pipeline ROW. The test results or analysis shall be provided to the landowner. In an email dated October 16, 2012, Williams inquired with the NYDOH about public water supply intake sources and municipal water wells within 0.25-mile radius of the Project area. The NYDOH replied in a letter dated November 27, 2012 that there was only 1 system within the Project area and that it belongs to the City of Binghamton. Williams followed up with the NYDOH, the City of Binghamton, and the Town of Kirkwood inquiring about the presence of water supply intakes or municipal water wells within a 0.25-mile of the Project area. Based on consultation, there are no public water supply intakes or municipal water wells within 0.25-mile radius of the Project. Correspondence with the NYDOH, the City of Binghamton, and the Town of Kirkwood is provided as **Exhibit L-1**.

2.5.1.5 Floodplains

Floodplains are low-lying lands typically adjacent to rivers and streams. When left in a natural state, floodplain systems store and dissipate floods without adverse impacts on humans, buildings, roads, and other infrastructure. NYSDEC Law (6 NYCRR Part 502) states that communities that participate in the National Flood Insurance Program must pass local laws or ordinances that regulate development within mapped floodplains.

Federal Emergency Management Agency ("FEMA") Flood Insurance Rate Maps ("FIRM"s) were reviewed to determine if the Project area is located within a flood zone. Flood zones are geographic areas that the FEMA has defined according to varying levels of flood risk. These zones are depicted on a community's FIRM or Flood Hazard Boundary Map. Williams reviewed FIRMs published on September 20, 1992 by FEMA for the Town of Windsor. Panels crossed by the Project include 360059 0025 C, 360059 0010 C, and 360059 0040 C; all of which are not printed panels because there are no mapped flood hazard areas depicted. Per consultation with FEMA and the Broome County Planning Office, preliminary updated FIRMs for Broome County were issued on February 5, 2010 but are not effective. There are no identified flood hazard areas crossed by the proposed NY Mainline Loop Pipeline, access roads, launcher/receiver mainline valve sites, or pipe storage yards. The Town of Windsor FIRM and 100-year floodplain map are provided as **Exhibit M**. Refer to Section 2.8.4.1 Flood Damage Prevention for additional discussion of floodplains as it applies to local laws.

2.5.1.6 Land Use

Land uses along the Project were identified based on field observations and aerial photography. **Table 4.0** identifies the land uses that are crossed by the NY Mainline Loop Pipeline centerline and **Table 4.1** identifies the acreage crossed by the Project and includes Abandoned Agricultural Land, Active Agriculture, Active Agriculture and Pastureland, Existing Pipeline ROW, Hay, Industrial, Open Land, Pastureland, Public Road ROW, Scrub Shrub, Unimproved Pasture, and Woodland.

Table 4.0 Land Uses Crossed by the NY Mainline Loop Pipeline Centerline

Land Use Crossed by Pipeline Centerline	Length (feet)	Length (miles)	Percentage
Abandoned Agricultural Land	1,685	0.3	3.4
Active Agriculture	4,717	0.9	9.4
Active Agriculture and Pastureland	165	< 0.1	0.3
Existing Pipeline ROW	32,830	6.1	65.5
Hay	1,791	0.3	3.6
Industrial	307	0.1	0.6
Open Land	1,327	0.3	2.6
Pastureland	1,417	0.3	2.8
Public Road ROW	408	0.1	0.8
Scrub Shrub	711	0.1	1.4
Unimproved Pasture	998	0.2	2.0
Woodland	3,831	0.7	7.6
Totals	**50,187**	**9.5**	**100.0**

Woodland is the predominant land use adjacent to the Project as shown on the Land Use Map attached as **Exhibit N**. The proposed NY Mainline Loop Pipeline primarily travels through existing pipeline ROW bordered by woodland habitat.

No public lands were identified adjacent to the Project route. The Project route crosses through and adjacent to private property of either residential or industrial use.

NY State certified agricultural districts exist in Broome County. Specifically, the proposed Project is located within Agricultural District 4 along 2 segments totaling approximately 3 miles. Agricultural Lands and Districts are discussed in further detail in Section 2.5.1.8.

Table 4.1 Land Use Acreage Crossed by the Project

Land Use Crossed	Operational ROW (acres)	Construction ROW (acres)
Abandoned Agricultural Land	1.6	2.8
Active Agriculture	0.0	1.9
Cropland	4.3	13.9
Cropland and Pastureland	0.2	0.3
Existing Pipeline ROW	30.5	42.9
Hay	2.0	3.8
Industrial	0.3	4.8
Open Land	1.4	12.1
Pastureland	1.3	3.9
Planting Area	0.0	0.1
Public Road ROW	0.4	0.6
Rock Pit/Quarry	0.0	0.5
Rural Residential	0.0	0.5
Scrub Shrub	0.7	2.1
Unimproved Pasture	0.9	2.0
Woodland	3.2[1]	14.7
Totals	**46.8**	**106.9**

Note:

[1] The amount of additional permanent tree clearing for this Project is substantially less than the 30.2 acres of permanent tree clearing that was required for the NY Mainline.

The Town of Windsor zoning map was examined for each zoning district type crossed by the Project. The proposed Project crosses through residential, agricultural, and commercial zones. Zoning is discussed in Section 2.8.

Residences within 500 feet of the NY Mainline Loop Pipeline ROW are included in **Table 4.2**.

Table 4.2 Residences within 500 Feet of the NY Mainline Loop Pipeline Construction ROW[1]

Approximate Mile Post	Landowner Name	Approximate Distance from Pipeline (feet)	Nearby Public Road
0.0	Laser Northeast Gathering Company, LLC	206 North	Patterson Road
0.4	Timothy P. McKnight	460 West	Dunbar Road
1.0	Chester H. Travis	92 Southwest	Dunbar Road
1.1	Helen G. Mott	476 South-Southeast	Dunbar Road
2.2	Deborah Osterhout	431 East	Fox Farm Road (CO RD 28)
2.4	Deborah Osterhout	490 Northeast	Fox Farm Road (CO RD 28)
2.4	Eduardo C. Toloza	193 East	Fox Farm Road (CO RD 28)
2.7	Leo Mulcahy	197 East	Rockwell Road
2.7	David B. Mulcahy	478 East	Rockwell Road
3.4	Mary Beth Marcel Donlick	358 West	Hoadley Hill Road
3.5	Philip J. Smith	453 East	Hoadley Hill Road
4.3	Francis T. Koury	407 East	Trim Street (CO RD 32)
5.3	Kenny W. Frederick	157 West	Bell Road
5.5	Alvah Shaffer	521 East	Bell Road
6.1	Luella Dobish	177 Southwest	John White Road
6.1	David Kaine	381 Southwest	John White Road
6.2	David K. Kirgan	240 West	John White Road
7.5	Steven Carinci	316 North	Phillips Road
7.6	Jilda J. Rush	229 Southeast	Farr Road
7.7	Nancy A. Nash	407 Northwest	Farr Road
7.7	Carene A. Dinardo	495 West	Farr Road
8.0	Reginald H. Collins	248 East	Phillips Road
8.7	Robert Bigelow	442 West	Blatchley Road
9.0	Michele Goff	358 East	Blatchley Road
9.0	Michele Goff	307 East	Blatchley Road
9.5	Roger Scott (PA Parcel)	437 West	Bush Hill Road

Note:

[1] This table is based upon available aerial imagery and parcel data. Residences are to be confirmed prior to construction. Orthophotography provided by Williams Field Services Company, LLC, 2012. National Agricultural Imagery Program (NAIP), aerial photography, 2009. ESRI World Imagery, UC-G, Microsoft Corporation and its data suppliers, 2011. Parcel Boundaries provided by Joe Hunt and Associates, December 2012. Construction Alignment Sheets, New York Mainline Loop Natural Gas Pipeline Project, November, 2013.

2.5.1.7 Geology and Soils

The proposed Project is located within 1 Major Land Resources Area ("MLRA") recognized by the Natural Resources Conservation Service, the Glaciated Allegheny Plateau and Catskill Mountains (MLRA 140). MLRAs are geographically associated land resource units, usually encompassing several thousand acres, characterized by a particular pattern of soils, geology, climate, water resources, and land use (USDA, 2006). Bedrock within the Project area consists of rock of the Upper Walton Formation and the Gardeau Formation. The Upper Walton Formation includes rock consisting of alternating shale and sandstone bed and conglomerate of Devonian age (USGS, 2010; USDA, 2006). The Gardeau Formation includes rock consisting of alternating shale and siltstone of Devonian age. The thickest and most uniform beds of certain sandstones are now valuable for local "bluestone" quarries. Rock colors are shades of red or bluish gray depending on the amount of oxygen in the environment during deposition (DCSWCD, 2007).

Some of the upper Devonian layers have been eroded away in areas of NY. Glacial drift mantles the area. Significant deposits of glacial outwash, consisting of unconsolidated sand and gravel, fill most of the valley floors. Some glacial lake sediments and ice-contact and stratified drift deposits occur in most of the valleys. These deposits are the primary aquifers in this area. Younger stream deposits cover some of the glacial deposits on the valley floors (USDA, 2006).

The dominant soil order in this MLRA is Inceptisols. They are shallow to very deep, well-drained to poorly drained and loamy or loamy-skeletal. *Dystrudepts* (Lordstown and Oquaga series) formed in tills on hills and dissected plateaus. *Fragiudepts* (Mardin series) and *Fragiaquepts* (Morris and Volusia series) formed in till on hills and till plains (USDA, 2006).

Soil survey data, as described in the *Web Soil Survey Geographic (SSURGO) Database for Broome County, NY* (NRCS, 2011) was reviewed for soil types within the area of the Project. **Table 5.0**, Soils Crossed by the proposed Project Route, contains a summary of the 17 soil types mapped to the area and the length in miles (or acres) that each of these soils types are crossed by the Project route. A soils map for the Project route is included as part of **Exhibit J**. Approximately 13.7 percent of the NY Mainline Loop Pipeline route crosses hydric soils and approximately 21.4 percent of the proposed temporary and permanent access roads cross hydric soil. Hydric soils were not identified within the proposed pipe storage yards. Approximately 2.6 percent of the NY Mainline Loop Pipeline route crosses Prime Farmland and approximately 6.9 percent of the proposed temporary and permanent access roads cross Prime Farmland. Prime Farmland consists of soils best suited for growing food, feed, forage,

Table 5.0 Soils Crossed by the Proposed Project

Soil Symbol	Soil Unit	Brief Description of Soil Unit	Hydric Soil	Distance Crossed (mile)	Percent of Total
Soils Crossed by the Proposed NY Mainline Loop Pipeline Centerline					
Ad	Alluvial land	This soil has 0 to 3 percent slopes and is poorly drained. This soil is frequently flooded and ponded.	Yes	0.17	1.81
CpB	Chippewa channery silt loam	This soil has 3 to 8 percent slopes and is poorly drained. This soil is not flooded and occasionally ponded.	Yes	0.04	0.39
LdC	Lordstown channery silt loam	This soil has 5 to 15 percent slopes and is well drained. This soil is not flooded and not ponded.	No	0.53	5.63
LdD	Lordstown channery silt loam	This soil has 15 to 25 percent slopes and is well drained. This soil is not flooded and not ponded.	No	0.53	5.60
LoE	Lordstown and Oquaga channery silt loams	This soil has 25 to 35 percent slopes and is well drained. This soil is not flooded and not ponded.	No	0.92	9.64
LsE	Lordstown and Oquaga extremely stony and rocky soils	This soil has 0 to 35 percent slopes and is well drained. This soil is not flooded and not ponded.	No	0.45	4.75
MhB	Mardin channery silt loam	This soil has 2 to 8 percent slopes and is moderately well drained. This soil is not flooded and not ponded.	No	0.04	0.38
MhC	Mardin channery silt loam	This soil has 8 to 15 percent slopes and is moderately well drained. This soil is not flooded and not ponded.	No	1.76	18.57
MhD	Mardin channery silt loam	This soil has 15 to 25 percent slopes and is moderately well drained. This soil is not flooded and not ponded.	No	0.58	6.08
MhE	Mardin channery silt loam	This soil has 25 to 35 percent slopes and is moderately well drained. This soil is not flooded and not ponded.	No	0.18	1.87
Ms	Middlebury silt loam	This soil has 0 to 3 percent slopes and is moderately well drained. This soil is occasionally flooded and is not ponded.	No	0.20	2.16
Ta	Tioga silt loam	This soil has 0 to 5 percent slopes and is well drained. This soil is occasionally flooded and is not ponded.	No	0.04	0.39
VoB	Volusia channery silt loam	This soil has 3 to 8 percent slopes and is somewhat poorly drained. This soil is not flooded and not ponded.	No	0.70	7.42
VoC	Volusia channery silt loam	This soil has 8 to 15 percent slopes and is somewhat poorly drained. This soil is not flooded and is not ponded.	No	2.85	29.84
VoD	Volusia channery silt loam	This soil has 15 to 25 percent slopes and is somewhat poorly drained. This soil is not flooded and not ponded.	No	0.36	3.84
Wd	Wayland silt loam	This soil has 0 to 3 percent slopes and is poorly drained. This soil is frequently flooded and ponded.	Yes	0.15	1.63
			Totals	**9.50**	**100.00**

Table 5.0 (Continued)

Soil Symbol	Soil Unit	Brief Description of Soil Unit	Hydric Soil	Distance Crossed (mile)	Percent of Total
Soils Crossed by the Proposed Access Roads					
Ad	Alluvial land	This soil has 0 to 3 percent slopes and is poorly drained. This soil is frequently flooded and ponded.	Yes	0.34	12.10
ChA	Chenango and Howard gravelly loams	This soil has 0 to 5 percent slopes and is well drained. This soil is not flooded and not ponded.	No	0.03	1.07
LdC	Lordstown channery silt loam	This soil has 5 to 15 percent slopes and is well drained. This soil is not flooded and not ponded.	No	0.02	0.71
LdD	Lordstown channery silt loam	This soil has 15 to 25 percent slopes and is well drained. This soil is not flooded and not ponded.	No	0.03	1.07
LoE	Lordstown and Oquaga channery silt loams	This soil has 25 to 35 percent slopes and is well drained. This soil is not flooded and not ponded.	No	0.02	0.71
LsE	Lordstown and Oquaga extremely stony and rocky soils	This soil has 0 to 35 percent slopes and is well drained. This soil is not flooded and not ponded.	No	0.11	3.91
MhB	Mardin channery silt loam	This soil has 2 to 8 percent slopes and is moderately well drained. This soil is not flooded and not ponded.	No	0.08	2.85
MhC	Mardin channery silt loam	This soil has 8 to 15 percent slopes and is moderately well drained. This soil is not flooded and not ponded.	No	0.35	12.46
MhD	Mardin channery silt loam	This soil has 15 to 25 percent slopes and is moderately well drained. This soil is not flooded and not ponded.	No	0.02	0.71
Ms	Middlebury silt loam	This soil has 0 to 3 percent slopes and is moderately well drained. This soil is occasionally flooded and is not ponded.	No	0.11	3.91
Ta	Tioga silt loam	This soil has 0 to 5 percent slopes and is well drained. This soil is occasionally flooded and is not ponded.	No	0.05	1.78
VoB	Volusia channery silt loam	This soil has 3 to 8 percent slopes and is somewhat poorly drained. This soil is not flooded and not ponded.	No	0.32	11.39
VoC	Volusia channery silt loam	This soil has 8 to 15 percent slopes and is somewhat poorly drained. This soil is not flooded and is not ponded.	No	1.12	43.06
VoD	Volusia channery silt loam	This soil has 15 to 25 percent slopes and is somewhat poorly drained. This soil is not flooded and not ponded.	No	0.12	4.27
			Totals	**2.81**	**100.00**
Soils Crossed by the Pipe Storage Yards					
VoB	Volusia channery silt loam	This soil has 3 to 8 percent slopes and is somewhat poorly drained. This soil is not flooded and is not ponded.	No	0.30	6.00
VoC	Volusia channery silt loam	This soil has 8 to 15 percent slopes and is somewhat poorly drained. This soil is not flooded and is not ponded.	No	4.90	94.00
			Totals	**5.20**	**100.00**

fiber and oilseed crops. Additionally, approximately 62.1 percent of the NY Mainline Loop Pipeline route crosses soils that are classified as Farmland of Statewide Importance and approximately 68.8 percent of the proposed and existing temporary and permanent access roads cross soils that are classified as Farmland of Statewide Importance. Farmlands of Statewide Importance include lands other than Prime Farmland, which have a good combination of physical and chemical characteristics for the production of crops. As discussed in Section 2.5.1.8, Williams has consulted with the NYDAM and has integrated best management practices into the construction and restoration phases of the Project to minimize impacts to agricultural land.

Topography of the Project area ranges from rolling hills to steep slopes; slopes generally range from 0 to 35 percent. **Table 6.0**, Slopes Encountered Along the Proposed NY Mainline Loop Pipeline, presents a compilation of the slopes encountered along the proposed route. Approximately 95 percent of the proposed route traverses slopes that are 30 percent or less. For areas of steep slopes and where soil erosion may occur, Williams will comply with the temporary and permanent soil erosion control measures listed in the EM&CS&P.

Table 6.0 Slopes Encountered Along the Proposed NY Mainline Loop Pipeline

Slope Interval (percent)	Distance	
	Miles	Percent
0 to 5	1.18	12.47
6 to 10	2.60	27.37
11 to 15	2.48	26.11
16 to 20	1.32	13.89
21 to 25	1.08	11.37
26 to 30	0.37	3.89
31 to 35	0.22	2.32
More Than 35	0.25	2.63
Totals	**9.50**	**100.00**

2.5.1.8 Agricultural Lands/District

According to a letter sent to the NYDPS dated October 22, 2010 regarding Case 10-T-0350, the NY Mainline (and now the proposed NY Mainline Loop Pipeline since it generally follows the same ROW) crosses through 6 agricultural land parcels as determined by the NYDAM. The active agricultural lands are parcels 164.02-1-3 (Travis; cropland and unimproved pasture), 164.04-1-9.1 (Fox Farm, LLC; cropland), 180.02-1-9.1 (Farr; cropland and pasture), 180.02-1-11 (Root; cropland), 181.01-1-13 (Donlick; pasture), and 212.04-1-25 (Nash; cropland and pasture) each of which are labeled on

Exhibit P, Agricultural Districts and Land Map. Based on additional consultation with the NYDAM, the following properties were also identified as agricultural lands: 164.02-1-3 (Travis; unimproved pasture), 229.02-1-15 (Bigelow; hay field and pasture), and 229.04-1-3.1 (Goff property; abandoned agricultural land). During construction and operation on these properties, Williams proposes to follow the construction standards included in the NYDAM Pipeline ROW Construction Projects; Agricultural Mitigation Through the Stages of Project Planning, Construction/Restoration and Follow-up Monitoring (Rev. 11-97) and the EM&CS&P to minimize impacts to agricultural land. In restoring the construction ROW (permanent, temporary, additional temporary extra workspace ("ATWS"), temporary access roads) on these properties, Williams will first adhere to property owner preference for seed mixture, however, if the landowner does not request a specific mixture, Williams will then defer to the ROW Restoration and Revegetation Plan (**Exhibit S**) developed for the Project. Williams will also adhere to the Project's Preparedness, Prevention, and Contingency Plan for Construction Activities included in the Project's SPDES Permit.

The proposed Project crosses over Broome County District #4 Agricultural District as shown on **Exhibit P**.

The active and inactive agricultural crop land and pasture lands crossed by the Project are detailed in **Table 7.0**. According to an email from NYDAM dated November 30, 2012, the Agricultural Lands, topsoil stripping, and sub-soil decompaction locations identified in this table are consistent with the lands identified for NY Mainline project, and now applicable to this Project, and the conversations that occurred during the pre-application field review on November 7, 2012 and January 31, 2013. Pasture land in this table refers to land that is grazed land, mowed, or could have recently been used as cropland, but is currently fallowed. Active agricultural lands will have additional temporary extra workspace as necessary to accommodate topsoil segregation; the CAS attached hereto as **Exhibit I** shows the location of proposed ATWS.

Representatives from Williams, along with a representative of the NYDAM, conducted a site visit to the agricultural lands to be crossed by the Project on August 18, 2012. The following recommendations for ROW construction and restoration were discussed:

- The landowner of the active agricultural land will have the first preference for seeding mixtures and reseeding techniques.
- Prior to construction, Williams will strip the topsoil first. Typically, in the Project area, there is 6 to 8 inches of topsoil, however in some places it may be up to 12 inches.

Table 7.0 Active and Inactive Cropland and Pasture Land

Station Start	Station End	Property	Type of Agriculture Use	Total Footage	Topsoil Conservation Practice[1]	Sub-Soil Decompaction
44+34	45+51	Travis	Cropland	117	Topsoil Segregation[2]	Yes
46+00	60+19	Travis	Cropland	1419	Topsoil Segregation	Yes
61+68	62+78	Travis	Unimproved Pasture	110	Topsoil Segregation	No
65+87	74+47	Travis	Unimproved Pasture	860	Topsoil Segregation	No
130+47	137+53	Fox Farm, LLC	Cropland	706	Topsoil Segregation	Yes
141+40	142+96	Farr	Cropland and Pasture	156	Topsoil Segregation	Yes
143+31	149+65	Farr	Pasture	634	Topsoil Segregation	Yes
167+20	179+83	Root	Cropland	1263	Topsoil Segregation	Yes
180+62	183+24	Donlick	Pasture	262	Topsoil Segregation	Yes
404+19	408+65	Nash	Pasture	446	Topsoil Segregation	Yes
408+65	419+82	Nash	Cropland	1117	Topsoil Segregation	Yes
447+99	466+18	Bigelow	Hayfield	1819	Topsoil Segregation	Yes
466+18	474+56	Goff	Abandoned Agricultural Land	838	Topsoil Segregation	No
475+15	483+39	Goff	Abandoned Agricultural Land	824	Topsoil Segregation	No

Notes:

[1] Stripped topsoil will be placed on top of un-stripped topsoil overtop the existing NY Mainline and be contained within the proposed Project limits-of-disturbance.

[2] AR-8 will either have the topsoil stripped or will be matted where crossing cropland.

- Williams will maintain a minimum of 4 feet of cover over the NY Mainline Loop Pipeline in agricultural fields.
- Williams will be cognizant of drain tiles during construction in agricultural lands so as not to cause damage to them. Additionally, Williams is aware that the centerline ditch may act as a French drain and that mitigation may be required during construction. Williams proposes to install trench breakers to mitigate for the potential French drain effect.
- Williams will monitor heavily mulched areas (should it occur) for vegetation growth and if no growth is occurring mulch will be removed.
- Sub-soil decompaction will occur in active agricultural crop and pasture land.
- Williams will remove rocks larger than 4 inches in diameter (from the top 12 inches of soil).

- Williams will remove silt fence and other temporary erosion control devices upon successful restoration.

- The ideal seeding time is the first couple weeks of August; however, the construction schedule may conflict with this standard.

- Williams will negotiate with landowners to keep cattle out of the ROW to allow vegetation to re-grow during restoration periods.

- When reseeding, Williams will either utilize the drill method or broadcast the seed at 2 times the seed rate prescribed.

- In order to mitigate drainage alterations from the construction of NYPSC Case 10-T-0350, Williams will create a vegetated swale on the Nash property, south of Farr Road.

- In order to allow the intended vegetation such as clover to grow, Williams will mow down weeds in agricultural areas as necessary.

Williams has prepared the NYPSC Farmland Operator Forms for the properties crossed with active agriculture or pasture and is attached as **Exhibit Q**. Williams has also completed Appendix 7-G of 16 NYCRR and is provided as **Exhibit R**.

2.5.1.9 Migratory Birds

Williams has designed the Project to avoid and minimize potential impacts to migratory bird species by the following:

- Where feasible, Williams will co-locate Project facilities in or adjacent to already disturbed areas and existing utility ROWs. Tree clearing and fragmentation of large, contiguous tracts of wildlife habitat, has been minimized by paralleling existing pipelines and utilizing the existing ROW, to the maximum extent possible.

- Proposed private access roads to be used for the Project are mostly existing and previously disturbed areas. Where new temporary or permanent access roads are proposed, impacts to migratory birds are expected to be minimal as they will be located in actively managed fields or small forested areas that have been previously disturbed. Therefore, the use of new access roads will be minimized to the greatest extent possible.

- Post-construction restoration and seeding will be accomplished according to Williams' Erosion and Sedimentation Control ("E&SC") Plan and will comply with the latest edition of the NYSDEC's Standards and Specifications for E&SC. Williams will also consult with the NYDAM and the NYDPS, and incorporate agreed to

recommendations into post-construction restoration and seeding. The Project's ROW Restoration and Revegetation Plan is attached as **Exhibit S**.

- The proposed Project will not cross wetlands regulated by the NYSDEC Freshwater Wetlands Program or waterbodies designated as C(T) or higher that require a permit under ECL Article 24 and Article 15-0501 respectively.
- A review of the NYSDEC's Bird Conservation Area ("BCA") Geographic Information Systems data did not identify a BCA within Broome County, NY; the nearest identified BCA (Long Pond) is over 20 miles from the Project (NYSDEC, 2008).
- According to the NY Audubon Society *Important Bird Areas in New York State* (Second Edition), no known Important Bird Areas ("IBA"s) are crossed by the proposed Project (Burger and Liner, 2005). The closest identified IBA is the Cannonsville/Steam Mill area located approximately 16.5 miles east of the Project.

Due to the co-locating of the proposed NY Mainline Loop Pipeline primarily within an existing pipeline ROW, no designated IBA or BCA areas within the Project area, no federal, state or local public recreation lands crossed by the Project, absence of nearby large bodies of open water, and availability of similar habitat crossed by the Project in the surrounding landscape, significant impacts to migratory birds of concern are not expected as a result of the proposed Project.

Although Project activities may cause some migratory birds to avoid the areas during construction, this impact will be limited to the relatively short period of active construction and will disturb an insignificant area compared with the distance travelled by migratory birds and the amount of available habitat in the landscape. Therefore, the Project is not expected to result in a significant or long-term change in migratory bird populations in the area.

To minimize potential impacts to migratory birds during pipeline operation, routine mowing will not occur between April 1 and July 15.

2.5.1.10 Rare, Threatened, and Endangered Species

Consultation with appropriate federal and state agencies was initiated on October 9, 2012 to determine if federally listed, state listed, or proposed Rare, Threatened, and Endangered ("RTE") species or their critical habitat potentially occur in the vicinity of the proposed Project.

USFWS. In a letter dated September 27, 2012, Williams initiated consultation with the USFWS NY Field Office. The USFWS NY Field Office responded in a letter dated November 14, 2012, indicating there are no anticipated impacts to RTE species for Project activities.

Since receiving initial clearance, Williams has conducted 3 90-day USFWS NY Field Office online reviews to ensure that listed species presence/absence information for the proposed Project is current.

Copies of USFWS NY Field Office correspondence and the 90-day online reviews are provided as **Exhibit T**.

NYSDEC. An online search of the Project area using the NYSDEC's Environmental Resource Mapper was used to search for RTE species within the vicinity of Project. The Environmental Resource Mapper showed no RTE Species within the Project area. In addition, consultation with the Division of Fish, Wildlife and Marine Resources and the NY Natural Heritage Program of the NYSDEC was initiated via "Request for Review" in a letter dated September 27, 2012. Williams received a response letter dated October 9, 2012 indicating that there are no known RTE species in the Project area.

A NYSDEC RTE clearance renewal letter was submitted on September 27, 2013. GAI received a response letter dated October 15, 2013 indicating that there are no known RTE species in the Project area.

Copies of these consultations are included as **Exhibit U**.

2.5.1.11 Invasive Species

According to the NYSDEC, invasive species are non-native species that can cause harm to the environment or to human health. The NYSDEC has created an "Interim List of Invasive Plant Species in New York State" (Revised May 14, 2012) which the NYSDEC uses as a tool for prevention, early detection, monitoring, rapid response, control and eradication, restoration, research, and public education for invasive species management.

Williams has outlined practical measures to minimize the introduction and spread of invasive species within the proposed Project's construction LOD and plans to implement construction activities in order to limit the impact of invasive species on the LOD and ROW.

These measures include:

- conducting a preliminary survey of the Project LOD to identify existing invasive species;
- training contractors and Environmental Inspectors ("EI") on how to recognize invasive species;
- using construction techniques along the NY Mainline Loop Pipeline route that minimize the transport and distribution of topsoil that may contain invasive species;
- minimize the time that bare soil is exposed and, therefore, minimize the opportunity for invasive species to become established;
- adherence to erosion control procedures to assure that sediment movement and the associated movement of invasive seeds into newly disturbed soils are minimized; and
- restoring and revegetating the ROW as soon after the final grading is completed to allow new vegetation to become established and discourage the growth of invasive species.

Invasive Species Survey

Prior to construction, Williams will complete a survey to determine the extent of invasive species within the Project LOD. The survey results will be shared during the pre-construction training given to contractors and Project EI's.

Training

As part of the Project's Environmental Training, Williams will train contractors and particularly the EI's on how to recognize invasive species. Personnel who will be on-site for the Project will receive the NYSDEC's *Revised Interim List of Invasive Species in New York State* (Revised May 14, 2012) along with a pamphlet containing photographs, common characteristics, and the results of the invasive species survey.

- Clean Machinery and Equipment: Machinery and equipment to be used in the construction of the proposed Project, including but not limited to, trucks, tractors, excavators, and hand tools such as shovels, rakes, hoes, picks, and etc., will be cleaned with high pressure air hoses (contractor may use water when cleaning is done off ROW) prior to delivery to the site, in an effort to keep them free of invasive species. The EI will check that trucks and equipment have been washed prior to first use, and that there is no dirt or plant material clinging to the wheels, tracks, or undercarriage of the vehicles or equipment. The intent is that equipment will be clean when arriving at the Project site.

Topsoil Segregation

During construction, topsoil will be removed from the excavation areas and stored to the side for replacement once the construction is complete. This will minimize the introduction of invasive species and maintain the native plant seed bank. The stored topsoil will be seeded and mulched with cover crops and/or fast-growing grasses to control erosion and serve to minimize the associated movement of invasive seeds into newly disturbed soils.

- Erosion Control: Disturbed soils will be stabilized using erosion control/stormwater management technical standards as soon as feasible to minimize invasive species establishment in accordance with the EM&CS&P and approved soil erosion control plan.

- Preserve and Restore Native Vegetation: Impacts on native vegetation will be avoided or minimized. Wetland areas and riparian zones temporarily impacted during the construction of the Project will be restored to pre-construction contours and re-vegetated. Re-vegetation and restoration will be conducted in accordance with the EM&CS&P, the Project's ROW Restoration and Revegetation Plan included as **Exhibit S**, the approved soil erosion control plan, and conditions of the USACE NWP-12. Landowner agreements will supersede the restoration and seeding procedures on those properties along the ROW. Non-invasive or native seed cover for crops or revegetation will be used according to Project plans.

During construction, the EI will monitor the ROW during day-to-day activities and check for new infestations of invasive species or the spread of existing populations. Appropriate control measures will be determined and implemented such as mowing, hand-pulling, digging, or herbicide application (with landowner approval) based on the presence of invasive species and in consultation with the NYSDEC regarding suggested management time windows.

2.5.1.12 Protected Vegetation

No "Old Growth Forest", "Sugar Bush", active logging or Christmas tree operations were identified during Project field surveys in September, October, and November 2012. Additionally, there are no trees listed in the Registry of Big Trees that are located in the vicinity of the proposed Project route, according to the NY State Big Tree Register (NYSDEC, 2013).

2.5.1.13 Visual Resources

Visual resources on private lands are a function of geology, climate, and historical processes and are influenced by topographic relief, vegetation, water, wildlife, land use,

human uses and development. In Broome County, the topography ranges from rolling hills to steep slopes.

An online review was completed to identify visual resources crossed by the Project. The NY State DOT's Scenic Byways Program (NYSDOT, 2010) website was reviewed for scenic byways within the Project area. No national or state designated scenic byways or scenic roads or parkways are located within the Project area. Additionally, no national trails, forest preserves, wilderness protected areas, state parks or wild and scenic rivers are located within the Project area (NPS, 2010; NYSDEC, 2012a, NYSDEC, 2012b, NYSDEC, 2012c, NYSOPRHP, 2012).

Williams will add inserts to the fence or shrubs around the existing gate-valve north of Farr Road to maintain aesthetic quality.

In Case 10-T-0350, it was identified that a hillside (Station 150+00 to Station 166+50) south of Rockwell Road and north of Hoadley Hill Road has visual aesthetic appeal from Route 17/I-86. In order to help maintain its current visual aesthetics and minimize additional tree clearing, Williams evaluated several options through this area. As discussed in Section 2.4, a meeting between Williams, the NYDPS, and a pipeline contractor was held on February 8, 2013 to discuss the option of constructing through this area without removing additional trees greater than 6-inches diameter at breast height. Based on the outcome of this meeting it was determined that it is possible to install the proposed NY Mainline Loop Pipeline through this area (Station 153+94 to 165+79) without removing additional trees greater than 6-inches diameter at breast height. By not removing additional trees of this size, the existing trees that currently stand will remain and continue to provide canopy cover of the ROW and maintain its aesthetic appeal from Route 17/I-86. A work plan describing the special construction techniques through this area is provided in **Exhibit I-1**. However, should safety concerns arise during construction and the removal of a tree(s) is required to safely install the proposed NY Mainline Loop Pipeline, Williams will immediately cease construction and contact the NYDPS for approval to remove a tree(s). Construction activities will be short-term, therefore, any long-term changes to the Project area are anticipated to be relatively minor particularly because the proposed NY Mainline Loop Pipeline will mostly parallel the existing NY Mainline located within the existing permanent ROW.

2.5.1.14 Project Construction and Economic Benefits

Williams expects the construction and operation of the proposed Project to have a positive socioeconomic impact on the Project area. The Project is expected to create economic benefits for local communities by generating employment opportunities and local expenditures by workers. Construction material purchases, sales tax,

miscellaneous retail purchases, labor wages to local workers, temporary housing expenditures, and construction worker expenditures exhibit positive short-term effects. Williams expects that the short-term spending generated by the Project will create increased tax revenue within the Project area. Short-term spending includes money spent on food, entertainment, recreation, housing, and miscellaneous purchases. The additional tax revenue could stimulate economic growth within the Project communities.

The additional tax revenue from the operation of the proposed Project will have tax benefits for Broome County. Residents of the Windsor Central School District in Broome County have recently benefitted from a decrease in school taxes due to the installation of the existing NY Mainline and Dunbar CS by increasing the municipality's tax base by nearly $30 million (Web Staff, 2012). Specifically, recent natural gas project work has decreased the school tax rate by 5.8 percent, and the Town of Windsor experienced an increase in the municipality's tax base from $310.5 million in 2011 to $342.5 million in 2012 due to the existing NY Mainline pipeline and Dunbar CS (Reilly, 2012).

When available, local workers will be employed for construction; however, due to the specialized nature of this Project and potential unavailability of specialists within the Project area, local workers will be primarily hired for temporary positions (i.e. clearing, re-vegetation, road bores, hydrostatic testing, etc.). Specialized workers will be most likely employed from outside the Project area.

2.5.2 Cultural Resources

In a letter dated September 27, 2012, Williams initiated consultation with the NY State Office of Parks, Recreation and Historic Preservation ("NYSOPRHP") and requested a review of the proposed Project. The NYSOPRHP responded to Williams in a letter dated October 5, 2012 initiating conversations with Williams about the Project. Per conversations with NYSOPRHP, Williams provided additional Project information in a letter dated November 27, 2012. The NYSOPRHP indicated that the planned Project will have no effect on historic properties listed or eligible for listing on the National Register of Historic Places in a letter dated December 11, 2012. Correspondence letters with the NYSOPRHP are included as **Exhibit V.**

Williams has developed an Unanticipated Discoveries Plan, provided as **Exhibit W**, in the event that cultural resources are discovered during Project construction.

2.5.3 Other Resource Evaluations

Wetlands, floodplains, streams, and springs and water wells were identified within the Project area. Of the remaining items listed in 85-1.2(3)(ii) (Ecosystem Resources) none of the following were found to exist in the Project area: unique old growth forests, active sugar bushes, productive timber stands, trees listed in the Registry of Big Trees in NY

State, and habitats of rare, threatened and endangered species. Erodible soils were addressed in the Stormwater Management Plan filed as part of Case 10-T-0350, which Williams will update as necessary and submit to the NYPSC for their records once approved by the NYSDEC. Also pursuant to 85-1.3(a)(2)(ii)(iii) all property boundaries, fences, walls and hedge rows to be crossed and any dwelling within 150 feet of the Project are shown on **Exhibit I**.

2.6 Streams, Road and Railroad Crossings

2.6.1 Stream Crossings

Thirty of the 59 streams that were delineated within the Project study area will be crossed by the proposed NY Mainline Loop Pipeline. These streams include 10 ephemeral streams, 6 intermittent streams, and 14 perennial streams. These features are labeled on **Exhibit I**. Crossing methods will be in compliance with the EM&CS&P specifications and applicable permit conditions. Williams will pin or stabilize temporary bridges to prevent them from flowing away during high rain events. Williams anticipates all stream crossings with the exception of Trowbridge Creek (SNY-SLH-004), SNY-SLH-003, and SNY-SJB-020 will be crossed via a dry-ditch open-cut method for pipeline installation. Water flow will be maintained during the construction of the crossing by one of the methods in the EM&CS&P. The crossing technique will depend on the flow at the time of construction and will likely utilize the dam and pump method (not necessarily a Coffer dam). Pump inlets will be screened to prevent aquatic life from entering the pump. Williams will take the following precautions in an effort to maintain the quality of the stream to be crossed at dry-ditch open-cut crossings:

- Water diversions around work areas will be adequate to protect water quality and quantity downstream.
- Water will be passed around the construction site by a gravity pipe or by active pumping. If pumped, the pump discharge will be directed against a solid object to prevent erosion of the bed and/or banks of the waterbody.
- Fish remaining in the dewatered area will be returned to the stream.
- During periods of work activity, flow immediately downstream of the work site will equal flow immediately upstream of the work site.
- Stream reaches downstream of construction areas will remain as clear as the reaches upstream of the construction areas.
- Silt fence or other erosion control practices will be installed.

- The stream bed will be restored to original elevations and will tie in smoothly with the upstream and downstream stream bed.

- The stream bed will not be graded flat. A low flow channel will be re-established in the pre-existing location and will tie in smoothly with the flow path both up and downstream.

- The stream bank will tie in smoothly with the adjacent stream bank, unless the bank has evidence of erosion (cut away, undercut, sloughing, etc.). In that case, it will be stabilized by grading to at least 1 vertical to 2 horizontal or flatter slope. Raw slopes within the temporary ROW may be stabilized by deep rooted vegetation such as woody plants, like shrub dogwoods, in addition to seeding and mulching. Riprap may be used in areas (temporary and permanent ROW) with high erosion potential.

- The pipe will be installed to a depth under the stream that accommodates the stream bed eroding downward over time. The depth of cover will be at least 5 feet at all open-cut streams. Trowbridge Creek will have a minimum of 10 feet of cover. The side castings during trenching will be located 10 feet from the top-of-bank.

- The streambed will be restored to its pre-existing condition with respect to contours, depth, and substrate.

To protect the bed and banks of Occanum Creek during the open-cut crossing, Williams will cut back the steep stream bank, slope, and revegetate the temporary ROW with appropriate vegetation suggested by the USDA Plant Materials Center. The entry/exit points of HDDs/conventional bores will be positioned as far from stream banks as practical and will be greater than 25 feet. To the extent possible, construction of stream crossings will be planned to occur when the amount of flow is minimal. Material to be stockpiled on the flood plain will be contained with silt fence or straw bales. These stock piles will then be removed immediately when work at the site is completed. With the use of Best Management Practices, the crossings will result in only temporary impacts to the waterbody. Once the crossing takes place, the area will be restored to its former conditions per the EM&CS&P and applicable permit conditions. Pipe installed at stream crossings will include heavier wall thickness and may be concrete coated with 2 to 3 inches of concrete and will be pre-cast prior to arriving to the Project area.

A Stream Protection Permit under ECL Article 15-0501 is not required for streams crossed by the Project.

2.6.2 Road and Railroad Crossings

Eleven public road crossings are planned for the construction of the Project and are included in **Table 8.0**. These include Dunbar Road, Fox Farm Road, State Route 17

Table 8.0 Road and Railroad Crossings for Proposed Route

Number	Stationing	County Road ID No.	Name	Classification	Authority	Length (feet)	Type	Construction Method	Permit Status
1	45+78	N/A	Dunbar Road	Township	Town of Windsor	50	Tar and Chip	Open-cut or conventional bore	Existing Agreement
2	127+50	CR 28	Fox Farm Road	County	Broome County	33	Asphalt	Guided bore	Pending
3	127+66	N/A	SR-17/I-86	State	NY State DOT	43 West bound/ 41 East bound	Asphalt	Guided bore	Pending
4	143+13	N/A	Rockwell Road	Township	Town of Windsor	18	Tar and Chip	Open-cut or conventional bore	Existing Agreement
5	180+34	N/A	Hoadley Hill Road	Township	Town of Windsor	21	Asphalt	Open-cut or conventional bore	Existing Agreement
6	226+88	CR 32	Trim Street	County	Broome County	21	Tar and Chip	Conventional Bore	Pending
7	284+67	N/A	Bell Road	Township	Town of Windsor	19	Tar and Chip	Open-cut or Conventional bore	Existing Agreement
8	325+46	N/A	John White Road	Township	Town of Windsor	21	Tar and Chip	Open-cut or Conventional Bore	Existing Agreement
9	393+92	N/A	Phillips Road	Township	Town of Windsor	18	Tar and Chip	Open-cut or conventional bore	Existing Agreement
10	403+98	N/A	Farr Road	Township	Town of Windsor	14	Tar and Chip	Open Cut or conventional bore	Existing Agreement
11	474+85	N/A	Blatchley Road	Township	Town of Windsor	25	Tar and Chip	Open-cut or conventional bore	Existing Agreement

("SR 17")/I-86, Rockwell Road, Hoadley Hill Road, Trim Street, Bell Road, John White Road, Phillips Road, Farr Road, and Blatchley Road. With the exception of SR 17/I-86 and Fox Farm Road, roads are anticipated to be crossed using either the open-cut crossing method or the conventional bore method per the EM&CS&P and required permit specifications. Trim Street is anticipated to be crossed using the conventional bore crossing method per the EM&CS&P and required permit specifications. Williams plans on crossing SR 17/I-86 and Fox Farm Road using the guided bore method per the EM&CS&P and required permit specifications. Road Use Agreements are included as **Exhibit X**. Discussions are underway with the Town of Windsor to confirm that the existing Road Use Agreement allows Williams to cross and occupy the applicable Town of Windsor roads and ROW with the NY Mainline Loop Pipeline. As specified by the NYPSC in Case 10-T-0350, as a Certificate Condition, Williams will file a copy of the Broome County road crossing permit as soon as it is received.

2.7 Additional Items

A Notice of Intent ("NOI") and a Storm Water Pollution Prevention Plan were filed with the NYSDEC in order to obtain a SPDES General Permit for Stormwater Discharges from Construction Activity (GP-0-10-001) for the NY Mainline (Case 10-T-0350) and received coverage under Permit ID #NYR10T460. After consultation with the NYSDEC, Williams proposes using the existing open SPDES permit and providing the NYSDEC an updated NOI, E&S Control Drawings, and revised narrative text as necessary for the proposed Project. Upon approval of the revised SPDES a copy will be submitted to the NYPSC for its records. Changes to the Erosion and Sediment control practices will be proposed to the NYSDEC prior to implementation whenever possible, except when needed immediately to avoid violations of NY Water Quality Standards. During construction, water bars in the ROW that are disturbed will be restored at the end of each work day and to the specifications in the SWPPP. Water bars that are found to be installed incorrectly will be retrofitted to proper heights and slopes.

In addition, Williams has prepared a Hydrostatic Test Plan attached as **Exhibit Y**. Williams has also prepared a HDD Contingency Plan, **Exhibit Z**, included the HDD Geotechnical Bore Test Report, **Exhibit Z-1,** copies of the HDD construction drawings, **Exhibit Z-2**, prepared an HDD Inadvertent Returns Contingency Plan, **Exhibit AA**, and a Winter Construction, Restoration and Remediation Plan, **Exhibit BB.**

2.7.1 ROW Agreements

The proposed NY Mainline Loop Pipeline will be located predominantly on private property with Town of Windsor, County and State road crossings. Other than the road crossings, Williams is negotiating the additional ROW it requires for its NY Mainline Loop Pipeline from private landowners. A current list of affected private landowners and

acquisition status is attached as **Exhibit H**. Landowner agreements are provided as **Exhibits H-1 through H-30.**

2.7.2 Workspace

The locations for all workspace along the proposed NY Mainline Loop Pipeline are identified on **Exhibit I**. The workspace acquired from the landowners will be used per the terms of ROW/easement agreements.

Williams designed ATWS a minimum of 50 feet away from streams and wetlands per the EM&CS&P, except for the following locations:

- **ATWS between 10+00 and 14+85** - This ATWS is located between the ROW and AR-9 and is necessary to access the proposed NY Mainline Loop Pipeline, for parking, and extra space for a pull-off area to alleviate traffic congestion around Dunbar CS. Streams SNY-SJB-001 and SNY-SJB-010 are located within this ATWS boundary (**Exhibit I**, CAS Sheet 1). This ATWS is located on previously disturbed land.

- **ATWS between 129+25 and 130+50** - The 100-foot by 120-foot ATWS is located within 50 feet of wetland WNY-SJB-028 (**Exhibit I**, CAS Sheet 6) and is necessary to construct the bore pit which will be used to cross route 17/I-86 via guided bore.

- **ATWS between 191+00 and 192+00** - The 54-foot by 36-foot ATWS is located within 36 feet of Wetland WNY-SLH-034 (**Exhibit I**, CAS Sheet 9) and is necessary to remove a pile of logs that remains from the NY Mainline project.

- **ATWS between 393+00 and 393+92** – The 40-foot by 50-foot ATWS is necessary for safe and reliable construction across Phillips Road. Wetland WNY-SLH-009 is located within this ATWS boundary (**Exhibit I,** CAS Sheet 17). Additionally, the proposed LOD on the Carinci property is the same as that for the NY Mainline project as no modification to the existing easement is proposed.

- **ATWS between 394+17 and 394+50** - The 40-foot by 50-foot ATWS is necessary for safe and reliable construction across Phillips Road. Stream SNY-SLH-006 is located within this ATWS boundary (**Exhibit I,** CAS Sheet 17). Additionally, the proposed LOD on the Carinci property is the same as that for the NY Mainline project as no modification to the existing easement is proposed.

- **ATWS between 404+06 and 421+00** - The continuous ATWS located between these stations (**Exhibit I**, CAS Sheet 17 and 18) is necessary for topsoil storage and log storage space. Additionally, Williams plans to restore the agricultural land on this property to rectify conditions that currently exist as a result of NY Mainline

construction. The extra space is also necessary for safely crossing stream SNY-SLH-010 which is located at the bottom of a steep hill. Resources that are located within 50 feet of the ATWS are wetlands WNY-SLH-011, WNY-SLH-012, WNY-SLH-013, WNY-SLH-014, and stream SNY-SLH-010.

- **ATWS between 452+80 and 456+00** – The 70 foot by 585 foot ATWS is located within 30 feet of wetland WNY-SLH-006 (**Exhibit I,** CAS Sheet 19) and is necessary for the safe and reliable construction of the end drill point which will be used to cross Trowbridge Creek (SNY-SLH-004) via HDD.

- **ATWS between 464+50 and 465+99** – The 50 foot by 107 foot ATWS is located within 20 feet of stream SNY-SLH-001 (**Exhibit I**, CAS Sheet 19) and is necessary for the construction and placement of the launcher-receiver valve.

- **ATWS at 491+40** - The 69-foot by 60-foot ATWS is located approximately 10 feet from Stream SNY-SJB-023 (**Exhibit I**, CAS Sheet 21) and is necessary to remove a pile of logs that remains from the NY Mainline project.

2.7.3 Timber

When clearing shrubs and trees for temporary workspace or in areas where the existing permanent ROW was not cleared of shrubs and trees in Case 10-T-0350 (NY Mainline), stumps will be cut as low to the ground as possible and trees will be felled into the ROW to avoid off ROW damage using bulldozers, bladed mowers, or skidders and forwarders. In general, new debris resulting from the clearing of shrubs and timber for the proposed Project will be hauled off to an approved disposal facility, unless requested to be kept by the landowner. Landowners will have the option to keep the non-merchantable timber that was harvested from their land. Merchantable timber cut will either be left on-site for possible sale to a third party by the landowner or hauled off-site by Williams' contractor or disposed of at an approved facility. Williams will negotiate with the landowner the necessary compensation for merchantable timber cut as a result of the proposed Project.

Timber, wood chip, and stump/root mass piles that were left on-site after construction of the NY Mainline and are located within the construction LOD for the proposed NY Mainline Loop Pipeline will be removed and disposed of at an approved disposal facility or will be reasonably relocated per landowner request. Prior to removing stump/root mass piles, a clam bucket will be used to shake off dirt prior to removal. If necessary, clean fill may be brought in to maintain site contours. For timber and wood chip piles that were left on-site after construction of the NY Mainline and are not located within the construction LOD for the proposed NY Mainline Loop Pipeline, Williams will discuss with the landowner if these piles may remain on-site.

Wood chips will not be stored or disposed of in wetlands, agricultural fields, or within 50 feet of a stream. If timber is left on-site at the request of the landowner, the timber will be neatly stacked, in tree length, along the edge of the ROW or in designated push-out locations. Log piles will not be placed in wetlands, streams, floodplains, floodways, or visually sensitive areas.

Where appropriate, wood chips may be incorporated in to the soil during grading, but will not occur in agricultural areas (e.g. cropland, hay fields, pasture, etc.) or in wetlands. Wood chips will be spread no more than 3 inches thick with fertilizer spread over the chips to minimize nitrogen depletion due to cellulose decomposition. Burning of shrubs, timber, or slash is not proposed for this Project.

Vegetative buffer areas will be maintained where specified on the Project's CAS provided in **Exhibit I**. In order to prevent soil erosion along streams and wetlands, vegetation (ground cover, shrubs, and tree stumps) will be left in place within a minimum 15-foot strip on the bank of each stream or border of each wetland until the time of crossing. Tree cutting will be limited to the use of chain saws. Where vegetation grubbing and initial grading is necessary for equipment crossing along the travel-way, erosion and sediment control structures will be installed as described in Section 7 of the EM&CS&P. Existing vegetation buffers will be maintained at selected road and stream crossings and other visually sensitive locations where identified and where possible, especially at HDD or boring sites where complete ROW grading is not needed. Buffer areas are marked on the Project's CAS **Exhibit I**, indicated on line lists, and will be marked in the field to avoid accidental clearing.

Williams will comply with the NYPSC EM&CS&P for the proper clearing methods and procedures in upland areas, log disposal, and slash and stump disposal. The measures described in Section 5 of the EM&CS&P that Williams proposes to use for this Project are identified in the EM&CS&P Check-off List provided as **Exhibit CC**.

2.7.4 Blasting

Blasting was not required during the construction of the NY Mainline. Williams does not anticipate blasting as part of the construction methods; however, a blasting plan is included as **Exhibit F** should it be deemed necessary. Should blasting be required, the pipeline contractor will develop a site-specific blasting plan per the requirements of **Exhibit F.** If blasting is required, pre-blast surveys will be performed on structures within a 500-foot radius from the blast zone. Locations of private and public water supplies and springs within 500 feet from blasting sites will also be identified and documented. Additionally, local municipalities and landowners will be notified. Williams will adhere to the blasting conditions outlined in the EM&CS&P.

2.7.5 One-Call Summary

Williams is a member of Dig Safely New York [6 NYCCR Part 753 (Code Rule 53)]. Prior to construction, the contractor will make requisite notifications. Williams has conducted its own inspection for verification purposes and the proposed NY Mainline Loop Pipeline will be crossing:

- under an overhead utility line and a buried cable near Blatchley Road on the Goff Property (tax parcel #229.04-1-3.1);
- under an overhead utility line, a buried cable, and a private waterline on the Carinci property (tax parcel #212.04-1-31);
- under an overhead utility line and an underground communication cable paralleling the south side of Bell Road and an overhead utility line on the north side of Bell Road on the Shaffer property (tax parcel #197.00-1-11);
- under 2 overhead utility lines and an underground cable paralleling the south side of County Road 32 (Trim Street) on the Rogan property (tax parcel #197.00-1-2);
- under an overhead utility line paralleling Hoadley Hill Road on the Donlick property (tax parcel #181.01-1-13);
- under an overhead utility line on the Root property (tax parcel #180.02-1-11);
- under an underground communications cable and an overhead utility line paralleling the north side of Rockwell Road on the Farr property (tax parcel #180.02-1-9.1);
- under 2 underground cables and an overhead utility line on the north side of County Road 28 (Fox Farm Road) on the Fox Farm, LLC property (tax parcel #164.02-1-28.1);
- under a telephone line and overhead electric line on the east side of Dunbar Road on the Chester property (tax parcel #164.02-1-3); and
- under an overhead utility line on the south side of Phillips Road along the driveway to the Dunbar CS on the Laser/Williams property (tax parcel #148.02-2-33).

Crossings are labeled on the CAS included as **Exhibit I**.

2.7.6 EM&CS&P

Williams will construct, operate and maintain the proposed NY Mainline Loop Pipeline in accordance with the NYPSC's Revised EM&CS&P, effective December 7, 2006 as

adopted in NYPSC Case 06-T-1383 except as described below and in this Application. The EM&CS&P check-off list is provided as **Exhibit CC**.

According to the EM&CS&P, construction equipment must be parked outside of a 100-foot buffer area from wetlands and waterbodies. However, where there is no reasonable alternative, refueling may occur within the buffer. Since some HDD drill or bore equipment associated with this Project cannot be moved during operation, there is no reasonable alternative to refueling it at a different location, therefore, Williams will make the appropriate notification to the EI and proper precautions to prevent spills.

Additionally, the EM&CS&P states that stringing, welding, and other pipeline fabrication activities should also take place outside of the 100-foot buffer zone of wetlands to the maximum extent practicable. Due to multiple constraints such as the location of the existing line, topography, land owner restrictions, and engineering constraints, these activities may occur within buffer zones at HDD sites or as needed for constructability reasons.

As discussed in Section 2.2.4.2, Noise Impacts, of this Application, Williams respectfully requests approval from the NYPSC to deviate from the restricted construction hours set forth in Section 15.3.1 of the EM&CS&P to allow concentrated construction activity to occur between 7:30 am and 7:00 pm and when necessary between 7:00 pm and 7:30 am. Construction activities such as HDD, hydrostatic testing, or other construction activities may require work to be continually conducted and uninterrupted for an extended (>24 hours) period of time. These activities are discussed more fully in connection with construction noise impacts in Section 2.8.4.2.

Williams has also prepared a ROW Restoration and Revegetation Plan attached as **Exhibit S**.

2.7.7 Community Outreach Program

The goal of the Williams outreach plan is to establish communication among affected stakeholders, create an understanding of the community concerns, and a shared understanding of the Project needs. Williams Operations group has been conducting outreach in the Town of Windsor, NY since acquiring the NY Mainline in February 2012. Because of Williams' existing presence in the Town of Windsor, outreach is being coordinated with both construction of the proposed Project and ongoing work related to the Dunbar CS. This outreach has intensified as Williams has worked to comply with sound standards prescribed in the Certificate (Case 10-T-0350). This outreach has included one-on-one meetings with neighbors of the Dunbar CS to discuss sound and safety concerns, tours of the Dunbar CS for neighbors and emergency response personnel, and providing a status update to neighbors and elected officials of Williams' sound mitigation work.

2.7.7.1 Pre-Application Communication

In the acquisition of land rights to construct the NY Mainline, the landowners along the NY Mainline Loop Pipeline ROW agreed to multiple line rights which allow for the construction and installation of a second pipeline within the existing pipeline easement. Negotiations are underway to secure the ATWS that will be needed to construct the proposed Project.

Prior to submitting this Application, Williams has communicated with local and State public officials notifying them of the pending Project and filing. On November 19, 2013, a description of the proposed Project was provided to the Town of Windsor Supervisor as well as the Broome County Office of Energy Development. Additionally, Local elected officials attending a Dunbar CS tour on December 10, 2012 were informed of the proposed Project.

Discussions are underway with the Town of Windsor to confirm that the existing Road Use Agreement allows Williams to cross and occupy Town Roads and ROW with the NY Mainline Loop Pipeline (refer to Section 2.6.2).

A letter to residents within one quarter mile of the proposed NY Mainline Loop Pipeline has been sent notifying them of Williams' plans to file the Application. Plans have also been made to place a copy of the Application at the Town of Windsor Library and Town of Windsor Community House for public viewing. On November 20 and 27, 2013, a notice was placed in the *Windsor Standard* newspaper notifying local residents of Williams' plans and upcoming Application filing.

2.7.7.2 Post-Application Communication

Since purchasing the Dunbar CS, Williams has implemented an outreach program to ensure that the Town of Windsor residents living near to the Dunbar CS, public officials, and first responders are kept informed of progress Williams is making upgrading the Dunbar CS and to develop and maintain open lines of communication to ensure that residents are able to raise their concerns and receive answers to their questions. This outreach has included, without limitation, letters to all of the above describing planned work and its purpose; participating in a Windsor Working Group made up of town and school officials, residents and first responders; attending town meetings to answer questions when questions about operations are raised; and meeting with residents one on one in their homes to answer questions.

Williams plans to build on this outreach with the construction of the NY Mainline Loop Pipeline.

After the application is filed with the NYPSC, communication with stakeholders will be tailored to address specific needs of each stakeholder and will reflect a milestone-based approach. For instance, just prior to mobilization of construction equipment, Williams will mail a newsletter to all Town of Windsor households and businesses. This, and other communication, will be designed to keep stakeholders abreast of progress and changes that develop, if any.

Williams will notify the appropriate State agencies, local and public officials, affected landowners, and residents within 1,320 feet or one quarter mile of each side of the center of the ROW, as the following occurs:

Prior to construction: Assuming a Certificate is issued, Williams will notify stakeholders of the NYPSC's decision. Affected landowners will be notified at least 2 weeks in advance of construction activities. At least 7 days prior to construction activities, all Town of Windsor residents and public officials will receive a newsletter describing the "sequence of construction." This document will describe each phase of construction and what to expect.

At least 10 days prior to the start of construction, Williams will hold a pre-construction meeting with the selected pipeline contractor, Williams' inspectors, and appropriate agency staff. The purpose of this meeting will be to review the construction plans and schedule, permit and Certificate conditions, landowner stipulations, as well as Project safety requirements.

Once construction begins: As construction progresses, notifications will be made to the appropriate NY State agencies and affected landowners and residents within 1,320 feet of pending hydrostatic testing, blasting (not anticipated), or other similar activity. This notification will be made at least 10 days prior to beginning the hydrostatic tests or other aforesaid activities.

In coordination with the Town of Windsor Highway Department, impacts to road traffic will be coordinated in an effort to appropriately time impacts and that impacts to local residents are minimized. If Williams anticipates traffic slowdown resulting from construction, Williams will notify residents in an appropriate manner.

If blasting is required, notifications will be made to affected landowners and appropriate NY State agencies as soon as it is determined that excavation using conventional methods is not adequate.

Prior to placing the NY Mainline Loop Pipeline into service, notification letters will be sent to appropriate agency staff, local and state officials, and to affected landowners. In addition, an announcement will be made through local news media for all other Town of Windsor residents.

Once the NY Mainline Loop Pipeline has been placed into service, work will shift towards restoring the ROW to at least its previous condition.

As specified in the applicable conditions, specific actions will be taken in an effort to revegetate the ROW, agricultural lands, streams, and wetlands to successful levels before considering work complete. Upon completion of construction and before reclamation, a status report will be sent to the affected landowners providing the timeline for reclamation.

With the cooperation of affected landowners, agency staff, and other stakeholders, Williams anticipates a successful Project and long term positive relationship.

2.8 State and Local Laws

2.8.1 Introduction

This section addresses the requirements of Part 86.8 of Title 16 of the NYCRR and Article VII of the PSL.

Pursuant to § 126(1)(f) of the PSL, the NYPSC must find and determine that the proposed Project "… conforms to applicable State and Local laws and regulations issued thereunder ...". The NYPSC is authorized to refuse to apply any local ordinance, law, resolution, regulation or any local standard or requirement if the NYPSC finds that "… applied to the proposed facility such is unreasonably restrictive in view of the existing technology, or of factors of cost or economics, or of the needs of the consumers whether located inside or outside of such municipality."

PSL§ 130 prohibits a state agency or municipality from requiring "… any approval, consent, permit, certificate or other condition …" for a project subject to PSL Article VII.

In order to allow the NYPSC to make the required findings and determinations, 16 NYCRR § 86.8 requires the Applicant to submit a list of local substantive requirements applicable to the proposed major utility facility, specify any which the Applicant requests the NYPSC to refuse to apply, and submit a statement justifying a request that the NYPSC refuse to apply such a local requirement.

Pursuant to § 85-1.2(c), Williams' asks the NYPSC to review this Application under 16 NYCRR 85-1.7 and Section 121-a.7 of the PSL.

2.8.2 NY State

The NYSDEC regulates all substances covered by the Federal Comprehensive Environmental Response, Compensation and Liability Act, Federal Insecticide, Fungicide and Rodenticide Act, and Federal Toxic Substances Control Act and may

also regulate other chemicals known to be hazardous. The NYSDEC has enacted Chemical Bulk Storage Regulations (6 NYCRR Parts 595-599) which include rules on:

- requirements for release reporting, response and corrective action;
- State standards for new storage equipment (tanks, pipes, transfer stations and associated equipment); and
- tank and pipe testing inspection requirement.

Williams will comply with applicable NYSDEC hazardous substance regulations as applicable. Williams will remain in compliance with applicable NYSDEC hazardous substance regulations in addition to its Spill Prevention, Control and Countermeasures Plan and additional relevant requirements.

2.8.3 Broome County

2.8.3.1 Air Pollution Control

Section 168-22(B) of the Broome County Sanitary Code prohibits burning refuse in open fire except for burning of rubbish, principally tree trimmings, derived from on premise agriculture operations and the burning of tree cuttings accrued from pulping, lumbering and similar operations, if the prevailing winds, at the time of the burning are away from populated areas and no nuisance is created. When burning tree cuttings and timber cleared from the ROW, Williams will comply with § 168-22(B) of the Broome County Sanitary Code for air pollution control. However, burning is not proposed as part of this Project.

Broome County Administrative Code § 168-22(E) prohibits all motor vehicles including stationary, earthmoving and those moving by rail, using gasoline or diesel fuel for motive power to idle for more than 3 minutes in any one period when not in use performing its intended functions as a source of power. Williams will comply with this code during construction of the proposed NY Mainline Loop Pipeline.

2.8.3.2 Solid Waste

Section 179-29 of the Broome County Administrative Code requires companies generating commercial or industrial waste to source separate any recyclable materials. Williams will comply with the substantive requirements of this section.

2.8.3.3 Motor Vehicles

Section 100 of the Broome County Administrative Code requires a permit from the Broome County Commissioner of Public Works to operate motor vehicles on County roads that exceed the weight and dimension limits in NY Vehicle and Traffic Law § 385.

Certain vehicles used in the construction of the Project may exceed the weight and dimension limits in NY Vehicle and Traffic Law § 385. Williams' contractors will obtain the required permits from Broome County prior to operating oversized motor vehicles on County roads.

2.8.4 Town of Windsor

2.8.4.1 Flood Damage Prevention

Chapter 51 of the Town Code and Article XII of the Chapter 93 Zoning Ordinance address flood zones. Both sections of the local law are intended to minimize the potential loss of life and property, both public and private, due to flood conditions within the Town of Windsor.

Section 51-10 of the Windsor Town Code states in part that "no structure shall hereafter be constructed, located, extended, converted or altered and no land shall be excavated or filled without full compliance with the terms of this chapter and any other applicable regulations". Pursuant to Section 51-13, the Code requires that a development permit be obtained before the start of construction or any other development within the area of special flood hazard.

FEMA FIRMs were reviewed to determine if the Project area is located within a flood zone. Flood zones are geographic areas that the FEMA has defined according to varying levels of flood risk. These zones are depicted on a community's FIRM or Flood Hazard Boundary Map. Williams reviewed FIRMs published on September 20, 1992 by FEMA for the Town of Windsor. Panels crossed by the Project include 360059 0025 C, 360059 0010 C, and 360059 0040 C; all of which are not printed panels because there are no mapped flood hazard areas depicted. Per consultation with FEMA and the Broome County Planning Office, preliminary updated FIRMs for Broome County were issued on February 5, 2010 but are not effective. There are no identified flood hazard areas crossed by the proposed NY Mainline Loop Pipeline, launcher/receiver valve sites, or pipe storage yards. The Town of Windsor FIRM and 100-year floodplain map is provided as **Exhibit M**.

Notwithstanding that the current approved FEMA Flood Hazard maps do not identify flood hazards in the Project area, Trowbridge Creek was an area identified in Case 10-T-0350 as designated with a 100-year flood zone in the Project area. In Case 10-T-0350, the NYPSC Order stated that "[t]he pipeline itself is anticipated to have no impact on the water surface elevation of the base flood as it will be buried below Trowbridge Creek. These impacts are classified as temporary in nature and will not increase the water surface elevation of the base flood." As the proposed NY Mainline Loop Pipeline will be buried as well, it will comply with the substance of the local requirements concerning flood hazards as did the NY Mainline.

2.8.4.2 Noise Control

The Town of Windsor Noise Control Local Law (Chapter 68) ("Windsor Noise Law") establishes sound control standards. This law limits sound levels on property within the Town of Windsor to a maximum of 55 A-weighted decibels ("dBA") (5 dBA above demonstrated ambient noise levels during daytime and 3 dBA above demonstrated ambient noise levels during nighttime, with an absolute maximum of 55 dBA).

Construction sound is difficult to control due to the mobile nature of its sources and the fluid way in which most construction work must be done. The heavy equipment involved with building a pipeline will consistently produce sound above the maximum daytime level even while equipped with property functioning and best available sound muffling devices. Construction activities for the Project will generally be conducted between 7:30 am and 7:00 pm. However, as to the nighttime level, certain construction activities will occur that require continuous operation beyond daytime hours using heavy equipment and supporting labor. As explained in more detail below, these operations have the ability to produce sound that will not meet the applicable standards. Accordingly, the standards (both day and night) in the Windsor Noise Law, if applicable to construction sound, are unreasonably restrictive in view of the existing technology available to reduce sound levels. Williams respectfully requests that the Windsor Noise Law not be applied by the NYPSC to construction activities as explained herein.

Certain activities require continuous operation and will extend beyond daytime hours. These tasks have the ability to produce sound above the Town of Windsor's nighttime standard.

This is the case for the HDD, hydrostatic testing, and stream crossing processes. The HDD process requires a series of uninterrupted steps (pilot hole, hole opening, pipe pull-back) to successfully complete the necessary crossing(s). During this process, crews may work around the clock until the crossing(s) has been completed. The equipment used to complete the HDD will produce sound for most of the duration of the process.

Hydrostatic testing of the pipeline is another process that must proceed uninterrupted and involves sound producing equipment (air compressors, heavy equipment, pumps, portable generators, etc.). The testing process lasts a minimum of 12 hours once the appropriate test pressure is reached. Given the duration of the test, and the equipment needed to support this process, these activities cannot comply with the applicable limitations in the Windsor Noise Law.

For the proposed dry stream crossings, the EM&CS&P requires the crossings be completed within 24 hours from the start of trenching. Prior to trenching, Williams will take additional measures to minimize the time required to complete the crossing. This

will include; welding, coating, and x-raying the stream section of pipeline in advance of ditching; staging all material needed prior to trenching, and planning the actual crossing during optimal weather conditions. In order to complete this crossing within this time frame, construction activities may extend beyond the daytime working hours which would again allow sound to be produced above the applicable limit.

As such, Williams requests that the NYPSC not apply the Windsor Noise Law to construction activities during the daytime; as to the nighttime standard, Williams' requests that the Windsor Nose Law not be applied when the aforementioned activities will take place. Williams will provide notice to the Town of Windsor, adjacent neighbors and landowners when such activities are expected to occur beyond 7:00 pm.

2.8.4.3 Zoning

The Town of Windsor Zoning Code establishes the different districts zoned within the Town of Windsor boundaries and describes accepted uses in those zones. Section 93-5 states that no building or land shall be occupied unless it is in conformity with the regulations described for the district in which it is located. Section 93-6 establishes 5 zoning districts within the Town of Windsor: a Residential District, an Agriculture District, a Commercial District, an Industrial District, and a Flood Hazard District. The proposed NY Mainline Loop Pipeline traverses 3 of the districts: Agriculture, Commercial, and Residential. The proposed Project will not conflict with existing or proposed land use or planned residential, commercial, industrial, institutional, recreational or agricultural land uses as a result of construction and operation of the Project as it will be paralleling and occupying an existing pipeline ROW.

Notwithstanding that the NYPSC Order in Case 10-T-0350 stated the NY Mainline traverses a Flood Hazard District where the pipeline crosses Trowbridge Creek, the Town of Windsor Zoning Map provided as **Exhibit DD** does not identify a Flood Hazard District crossed by the proposed Project. Nonetheless, as explained above, the NYPSC Order in Case 10-T-0350 states "Staff has reviewed the criteria of review outlined by the Town of Windsor and notes that the pipeline will be constructed underground and will not impact water levels or velocities, obstruct flows or reduce floodwater storage and is not among the types of uses in the Flood Hazard District that the statute is intended to prohibit. No further review under this section is required."

The Residential District (§93-10), Agriculture District (§93-17), and Commercial District (§93-22) permit electrical distribution substation and other public utility structures as permitted principal uses. Gas pipelines are public utility structures. Residential and Agriculture Districts have no other applicable regulations to be evaluated for gas pipelines.

The proposed NY Mainline Loop Pipeline traverses the Commercial District in the area around Fox Farm Road/Route 17/I-86. Among the permitted uses described in § 93-22 of the Windsor Town Code are electrical distribution substations and other public utility structures. As noted above, pipelines are public utility structures. Pursuant to § 93-21 of the Windsor Town Code, site plan review is required on all commercial developments. As described in § 93-21.2 of the Windsor Town Code, the Code Enforcement Officer would review the Commercial Site Plan to determine, among other factors, whether the application meets all zoning regulations and whether the property involved in the application is in a Flood Zone. The site plan process involves providing information on a form and providing plot plan information. This Application provides the information required by the site plan. The Town of Windsor's site plan approval process itself is preempted by PSL§ 130. In the Order for Case 10-T-0350 the NYPSC stated "The pipeline, which includes no buildings in this district, is a permitted use in this district and there are no other restrictions applicable to the pipeline." Finally, the proposed pipe storage yard #1 is located on land zoned commercial and is the same pipe storage yard approved in Case 10-T-0350. The previously approved pipe storage yard #1 for the Project will be a temporary use of the land and will not be expanded beyond its current limits.

2.9 Stop Work Authority

The safety and health of all workers and the protection of our environment is important to Williams.

Williams believes that people must feel comfortable to voice safety concerns. As a result, all employees and contractors have been given the authority and responsibility (without fear of reprimand or retaliation) to immediately STOP any work activity that presents a danger to themselves, to co-workers, to other contractors, to Williams' employees or to the public. Each person is empowered to get involved, to question, and to seek to rectify any situation that is identified as not being in compliance with our safety policies, safe work practices or any deviation from agreed upon daily work plans.

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