

NEXUS GAS TRANSMISSION PROJECT

RESOURCE REPORT 2

Water Use and Quality

FERC Docket No. PF15-10-000

Pre-filing Draft June 2015



NOTICE TO PUBLIC STAKEHOLDER REVIEWERS

This Draft Resource Report for the NEXUS Gas Transmission Project ("Project") is being filed as part of the Federal Energy Regulatory Commission's ("FERC's") pre-filing process. The pre-filing process allows interested stakeholders, FERC, and regulatory agency staff to engage in early dialogue to identify affected stakeholders, facilitate early issue identification and resolution, provide multiple opportunities for public meetings (e.g., open houses), and support the preparation of high-quality environmental Resource Reports and related documents that describe the Project, assess its potential impacts, identify measures to avoid and mitigate impacts, and analyze alternatives to the Project.

Since the initial filing of Draft Resource Report 1 (Project Description) and 10 (Alternatives) on January 23, 2015, NEXUS hosted eight Open Houses along the proposed pipeline route to inform stakeholders about the proposed Project and to answer questions. FERC staff also hosted six independent Public Scoping Meetings along the proposed route in April and May of 2015, as part of the National Environmental Policy Act ("NEPA") compliance process. This Draft Resource Report may contain items that are highlighted in grey that will be filed when NEXUS files its NGA 7(c) Certificate Application with the Commission in November 2015.

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RESOURCE REPORT 2 – WATER USE AND QUALITY				
Filing Requirement	Location in Environmental Report			
☑ Identify and describe by milepost perennial waterbodies and municipus supply or watershed areas, specially designated surface water protection sensitive waterbodies, and wetlands that would be crossed. For each water crossing, identify the approximate width, state water quality classificate known potential pollutants present in the water or sediments, and any water intake sources within 3 miles downstream. (§380.12(d)(1))	areas and 2.3.3, 2.3.4, 2.3.5, 2.3.6, and 2.4.1. Tables: 2.3-1, ions, any 2.3-2, 2.3-4, 2.3-6, 2.3-7,			
☑ Compare proposed mitigation measures with the staff's current "Wet Waterbody Construction and Mitigation Procedures," which are available the Commission Internet home page or the Commission staff, descriptoposed alternative mitigation would provide equivalent or greater protection the environment, and provide a description of site-specific contechniques that would be used at each major waterbody crossing. (§380.)	Table 2.3-2 and Table 2.4-1 Table 2.4-1			
□ Describe typical staging area requirements at waterbody and wetland of Also, identify and describe waterbodies and wetlands where staging likely to be more extensive. (§380.12(d)(3))				
Include National Wetland Inventory (NWI) maps. If NWI maps are not a provide the appropriate state wetland maps. Identify for each cross milepost, the wetland classification specified by the U.S. Fish and Service, and the length of the crossing. Include two copies of the NWI the substitutes, if NWI maps are not available) clearly showing the proper and mileposts directed to the environmental staff. Describe by milepost crossings as determined by field delineations using the current methodology. (§380.12(d)(4))	sing, the Wildlife maps (or sed route , wetland			
Identify aquifers within excavation depth in the project area, including of the aquifer, current and projected use, water quality and average y known or suspected contamination problems. (§380.12(d)(5))				
Describe specific locations, the quantity required, and the method an withdrawal and discharge of hydrostatic test water. Describe susp dissolved material likely to be present in the water as a result of contact pipeline, particularly if an existing pipeline is being retested. Describe or physical treatment of the pipeline or hydrostatic test water. Discuproducts generated and disposal methods. (§380.12(d)(6))	ended or with the chemical 2.3.9, 2.3-10, 2.3-11			
 ☑ If underground storage of natural gas is proposed: (i) Identify how water produced from the storage field will be disposed (ii) For salt caverns, identify the source locations, the quantity required method and rate of withdrawal of water for creating salt cavern(s), as we means of disposal of brine resulting from cavern leaching. (§380.12(d)) 	, and the ell as the			
☑ Discuss proposed mitigation measures to reduce the potential for advers to surface water, wetlands, or groundwater quality to the extent the described in response to paragraph (d)(2) of this section. Discuss the for blasting to affect water wells, springs, and wetlands, and measures to to detect and remedy such effects. (§380.12(d)(8))	y are not 2.4.4 potential Tables: 2.3.2.2.3.3.2			



RESOURCE REPORT 2 – WATER USE AND QUALITY				
Filing Requirement	Location in Environmental Report			
Identify the location of known public and private groundwater supply wells or springs within 150 feet of proposed construction areas. Identify locations of EPA or state-designated sole-source aquifers and wellhead protection areas crossed by the proposed pipeline facilities. (§380.12(d)(9))	Section 2.2.3 and Table 2.2-2			



ACRONYMS AND ABBREVIATIONS

Application Certificate Application

ATWS additional temporary workspace
AWB approximate wetland boundary
Bcf/d Billion cubic feet per day
BMPs best management practices

Certificate Certificate of Public Convenience and Necessity

CAZ critical assessment zone
CU Cataloguing Unit

Dawn Hub in Ontario, Canada

DDAGW OEPA's Division of Drinking and Ground Water

E&SCP Erosion and Sediment Control Plan EDR Environmental Data Resources, Inc.

EI Environmental Inspector

FEMA Federal Emergency Management Agency FERC Federal Energy Regulatory Commission

GIS geographic information systems

gpm gallons per minute

HDD horizontal directional drill HUC Hydrologic Unit Code M&R metering and regulating

MDNR Michigan Department Natural Resources
MDEQ Michigan Department Environmental Quality

MP milepost

NGA National Gas Act

NRI National Rivers Inventory NWI National Wetlands Inventory ORV outstandingly remarkable values

PEM Palustrine Emergent
PFO Palustrine Forested
PSS Palustrine Scrub-Shrub

PUB Palustrine Unconsolidated Bottom

ROW right-of-way

SDWA Safe Drinking Water Act of 1974

SPCC Plan Spill Prevention, Control and Countermeasure Plan

SSA Sole Source Aquifers

SWAPP Source Water Assessment Program Plan

TMDL Total Maximum Daily Load

U.S. United States

USACE US Army Corps of Engineers

USEPA US Environmental Protection Agency

USFWS US Fish and Wildlife Service USGS US Geological Survey

WHPA Well Head Protection Area

WHPP MDEQ Wellhead Protection Program



2.0 RESOURCE REPORT 2 - WATER USE AND QUALITY

2.1 Introduction

NEXUS Gas Transmission, LLC ("NEXUS") is seeking a Certificate of Public Convenience and Necessity ("Certificate") from the Federal Energy Regulatory Commission ("FERC") pursuant to Section 7(c) of the Natural Gas Act ("NGA") authorizing the construction and operation of the NEXUS Gas Transmission Project ("NEXUS Project" or "Project"). NEXUS is owned by affiliates of Spectra Energy Partners, LP ("Spectra" or "Spectra Energy") and DTE Energy Company. The NEXUS Project will utilize greenfield pipeline construction and capacity of third party pipelines to provide for the seamless transportation of 1.5 billion cubic feet per day of Appalachian Basin shale gas, including Utica and Marcellus shale gas production, directly to consuming markets in northern Ohio and southeastern Michigan, and to the Dawn Hub in Ontario, Canada ("Dawn"). Through interconnections with existing pipelines, shippers on the NEXUS Project will also be able to reach the Chicago Hub in Illinois and other Midwestern markets. The United States ("U.S.") portion of the NEXUS Project will traverse Pennsylvania, West Virginia, Ohio and Michigan, terminating at the U.S./Canada international boundary between Michigan and Ontario. The Canadian portion of the Project will extend from the U.S./Canada international boundary to Dawn. A more detailed description of the Project is set forth in Draft Resource Report 1.

This Draft Resource Report 2 describes the existing water resources and water quality in the Project area, evaluates the potential impacts of construction and operation of the proposed Project on those resources, and identifies proposed mitigation measures to avoid or minimize potential impacts to groundwater, surface waterbodies, and wetland resources. The information presented in this Draft Resource Report was obtained from field surveys, review of available technical literature, and consultation with various federal, state, and local regulatory agencies. A checklist showing the status of the FERC filing requirements for Draft Resource Report 2 is included after the table of contents.

Project drawings, maps, alignment sheets, and aerials are provided in Draft Resource Report 1, Appendix 1A.

2.2 Groundwater Resources

This section discusses the existing groundwater resources that are located along the Project. Descriptions include groundwater uses and quality, and state and federal designated aquifers. This Section also discusses potential groundwater impacts and methods that NEXUS will use to avoid, minimize, and mitigate impacts.

2.2.1 Sole Source Aquifers

Sole source aquifer ("SSA") designations were defined by the U.S. Environmental Protection Agency ("USEPA"), pursuant to Section 1424(e) of the Safe Drinking Water Act ("SDWA") of 1974, for an aquifer that provides a sole or principal source (greater than 50 percent) of drinking water for an area, where contamination of the aquifer could create a significant hazard to public health, and where there are no alternative water sources that could reasonably be expected to replace the water supplied by the aquifer (USEPA, 2015a). According to the USEPA's designated SSA maps for Region 5, no designated SSAs are crossed by the NEXUS Project (USEPA, 2015b).

2.2.2 Regional Aquifers Crossed by the Project

The principal aquifers crossed by NEXUS Project are unconsolidated surface aquifers (primarily glacial and alluvial deposits) and consolidated and partially consolidated (fragmented bedrock) aquifers that are confined in siltstone, shale, sandstone, limestone, and dolomite bedrock (USGS, 1995; USGS. 1995a).

The surface aquifers are the uppermost aquifer type located along the NEXUS Project. These aquifer systems act as storage reservoirs that are recharged from precipitation and in turn recharge into the underlying confined or partially confined bedrock aquifers. Surface aquifer functions are directly related to



the localized surface geologic material that was deposited during advancing and receding continental ice sheets and can range from >100-600 feet and 50-400 feet in thickness in Ohio and Michigan respectively (USGS, 1995; USGS, 1995a). Glacial till deposits were created by the advancing ice and as a result are typically dense, thin, and unsorted deposits consisting of gravel, fine silt, and clay. Glacial outwash deposits are typically thicker than glacial till deposits and were formed during the receding of the ice sheets where melt water typically sorted deposits based on the energy of water. Coarser materials are primarily deposited where water flows were fastest, and finer materials were deposited in areas with slower moving melt water. Refer to Draft Resource Report 6 for more information regarding surface and bedrock geology.

Sections 2.2.2.1 and 2.2.2.2 below describes the principal regional aquifers crossed by the NEXUS Project. Refer to Figure 2.2-1 for a depiction of each principal aquifer type crossed by the NEXUS Project facilities. Table 2.2-1 provides a summary of milepost ("MP") ranges, thickness, average water depths, and gallons per minute ("gpm") of these aquifers.

2.2.2.1 Ohio

Ohio averages approximately 30 to 44 inches of rainfall each year; of the total annual rain fall about 10-33 percent infiltrates into Ohio aquifers. According to the Ohio Environmental Protection Agency ("OEPA"), approximately 42 percent of Ohio's population relies on groundwater for its water source (USGS, 1995). According to the OEPA 2014 Integrated Water Quality Report, the NEXUS Project traverses three major aquifer types; Sand and Gravel, Sandstone and Carbonate aquifer types. Refer to Figure 2.2-1 for a depiction of the principal aquifer types cross by the Project in Ohio. Table 2.2-1 provides a summary of the aquifer types, MP ranges crossed, thickness, average water depths, and gpm.

Sand and Gravel Aquifers

The unconsolidated sand and gravel aquifers (surface aquifers) are typically associated with buried valley aquifer systems where the glacial deposits are the thickest, and they are considered the most productive water-bearing formations or aquifers in the State of Ohio. These originated from pre-glacial and glacial watercourses cutting into the bedrock. These valley cuts were then filled by glacial drift and alluvial deposits of sand and gravel as the glaciers advanced and receded. In addition to the unconsolidated sand and gravel aquifers typically associated with buried valley aquifer systems, the Project crosses another sand and gravel aquifer type that is located in the Oak Opening sand deposits formed by the advance and receding of Lake Erie (OEPA, 2014).

These sand and gravel aquifers can range from 500 to 1,000 gpm where deposits are thickest, but lower yielding sand gravel aquifers are more common and are dependent upon the type, distribution, permeability, and thickness as well as construction parameters of a given well (OEPA, 2014). Sand and gravel aquifers recharge rapidly due to the coarser material deposits, which makes these aquifers more vulnerable to contamination from surrounding land use activities (OEPA, 2007).

Sandstone Aquifers

Mississippian and Pennsylvanian sandstone units are predominantly bedrock (confined) aquifers located in eastern Ohio. The sandstone aquifers are comprised of numerous layers of siltstone and sandstone that vary in thickness and are typically separated by layers of shale and minor amounts of limestone, clay, and coal. Although some of the thicker sandstones and conglomerates aquifers can yield 50 to 100 gpm, approximately 25 gpm is more common for the higher yielding sandstone aquifers.

Carbonate Aquifers

Carbonate bedrock units are the dominant aquifer type in western Ohio. Silurian and Middle Devonian, typically comprised of limestone and dolomite and can have a total thickness of 300 to 600 feet. Although these aquifers are capable of yielding from 100 to over 500 gpm the Project crosses carbonate aquifers that yield between 0 to 100 gpm. Higher production units are associated with fractures and dissolution features



that can increase the permeability. These carbonates were generally deposited in warm, shallow seas with limited input of sediment from continental sources. Some carbonate aquifers of this type are poor in quality and not used for drinking water.

2.2.2.2 Michigan

The Michigan region averages approximately 20 to 40 inches of precipitation annually, and a small portion of that water infiltrates into Michigan aquifers. According to the United States Geological Survey ("USGS"), approximately 50 to 55 percent of the Michigan population uses groundwater for their water source (USGS, 1995a). Similar to the western portion of Ohio, the NEXUS Project also crosses carbonate aquifers in Michigan, but the surface aquifers crossed in Michigan are estimated between 50 to 100 feet in depth and can yield approximately 0 to 70 gpm. The majority of the Project crosses confining bedrock units that are impermeable to water and therefore are not considered principal aquifers in Michigan. A smaller portion of the Project is located along the Silurian-Devonian bedrock aquifer that is primarily consolidated. Refer to Figure 2.2-1 for a depiction of the principal aquifer types crossed by the Project in Michigan. Table 2.2-1 provides a summary of the aquifer types, MP ranges crossed, thickness, average water depths, and gallons per minute.

Unconfined Silurian-Devonian Bedrock Aquifer

In Michigan, the Silurian-Devonian aquifer consists mostly of dolomite and limestone. Silurian-Devonian bedrock is about 300-400 feet in thickness and typically yield less than 50 gpm. Portions of the aquifer are unconfined and are overlain by surface aquifers and can be susceptible to contamination from the land surface through overlying glacial deposits. Where confined the Silurian-Devonian aquifers are protected from contamination by overlying confining units (USGS, 1995b).

2.2.3 Wells and Groundwater Protection Areas

Under the Safe Drinking Water Act ("SDWA"), each state is required to develop and implement an aquifer assessment and protection program in order to identify an aquifer's recharge areas contributing to public supply wells, and prevent the contamination of drinking water supplies. The SDWA was updated in 1996 with an amendment requiring the development of a broader-based Source Water Assessment Program to analyze existing and potential threats to quality of drinking water. The following section describes the Ohio and Michigan groundwater protection areas and programs.

The SDWA defines public water systems (groundwater and surface water) as having at least 15 service connections or regularly serving at least 25 individuals. There are three types of public water systems in Ohio: 1) community water systems serve at least 15 service connections used by year-round residents or regularly serve at least 25 year-round residents; 2) nontransient noncommunity systems serve at least 25 of the same persons over six months per year; and 3) transient noncommunity systems serve at least 25 different persons over 60 days per year. Examples of facilities that use these public water systems include campgrounds, restaurants and gas stations. A private water system is defined as a water system that serves fewer than 25 people per day, 60 days per year. Refer to Section 2.3.4 for surface public water.

The NEXUS facilities are sited to avoid public and private wells and wellhead protection areas as much as practicable. The sections below describe these groundwater resources located along the Project facilities.

Ohio

OEPA's Division of Drinking and Ground Water ("c") mandates public groundwater and surface water supply systems to establish a source water assessment and protection program ("SWAPP" or wellhead protection area). The assessment and protection program is designed to minimize potential contamination and maintain groundwater quality around a particular water well. These protection areas may vary in size depending upon a particular water supply's recharge areas. A SWAPP is developed by delineating the



recharge area, identify and manage potential sources of pollution, groundwater monitoring, and development of a contingency plan. Refer to Section 2.3.3 for surface water protection area information.

Based on OEPA geographic information systems ("GIS") data and field data collected during the surveys of the Project, NEXUS has identified thirty-three private wells and no public wells located within 150 feet of the Project facilities construction workspace. There are no springs or seeps identified along the Project that are used for drinking water or agricultural purposes. Based on OEPA GIS data, the NEXUS Project crosses two wellhead protection areas: one located at MP 50.4 in Wayne County, Ohio and the other at MP 66.2 in Medina County, Ohio. A list of known water supply wells located within 150 feet and wellhead protection areas that are crossed by the Project facilities is provided in Table 2.2-2. In addition, Figure 2.2-2 depicts the location of the OEPA GIS wells and wellhead protection areas along the Project. The wells that have been identified by NEXUS in the field are depicted on the Project Alignment Sheets that are provided in Appendix 1A – Volume II-B of Draft Resource Report 1.

Michigan

The Michigan Department of Environmental Quality ("MDEQ") Wellhead Protection Program ("WHPP") is a voluntary program in which communities may choose to develop an approved WHPP according to the guidelines established by the state. As part of the WHPP a Wellhead Protection Area ("WHPA") identifies the overlying surface area that contributes directly to a particular well based on a 10-year groundwater travel timeframe. The WHPA is submitted to the MDEQ for approval; once approved, a higher level of monitoring applies with respect to certain activities located in the WHPA (MDEQ, 2006).

Based on MDEQ GIS Data, and field data collected during the surveys of the Project, NEXUS has identified twenty private wells and two public wells that are located within 150 feet of the Project facilities construction workspace. One private well is located in the vicinity of Willow Run Meter and Regulator ("M&R") Station and three private wells are located in the vicinity of the wareyard 4-1. The two public wells are located at MP 244.7 in Washtenaw County, Michigan along the proposed NEXUS pipeline facilities. There are no springs or seeps identified along the Project that are used for drinking water or agricultural purposes. Based on MDEQ GIS data, the NEXUS Project crosses one wellhead protection area for a private well located at MP 231.9 in Monroe County, Michigan. A list of known public and private water supply wells located within 150 feet and the WHPA that is crossed by the Project facilities is provided in Table 2.2-2. In addition, Figure 2.2-2 depicts the MDEQ GIS well and wellhead protection areas along the Project. The wells that have been identified by NEXUS in the field are indicated on the Project Alignment Sheets that are provided in Appendix 1A – Volume II-B of Draft Resource Report 1.

2.2.4 Sources of Potentially Contaminated Groundwater [Impaired Groundwater]

NEXUS conducted a corridor database search using Environmental Data Resources, Inc., ("EDR") to identify various facilities with potential and/or actual existing sources of contamination that may affect groundwater near and along the proposed pipeline and aboveground facilities. The search identified multiple facilities with potential sources of contamination that may impact nearby soil and groundwater. Information in the EDR report includes a compilation of data from a variety of available federal, state, and local government databases detailed further in Draft Resource Report 8. The EDR report provides a detailed list of potentially contaminated sites within one-mile of the proposed pipeline centerline; however, only sites within 0.25 mile of the pipelines were reviewed for their potential to affect pipeline construction.

The EDR report identified 105 historic occurrences of potential contaminated groundwater sites along the Project pipeline. Of the 105 reported occurrences EDR databases queried, approximately 42 sites are located less than 500 feet from the proposed pipeline and two are located less than 100 feet from the proposed pipeline which suggests that the likelihood of encountering contaminated soils and groundwater along the majority of the Project route is generally low. The Willow Run M&R Station is the only aboveground facility that is located 500 feet from a known site. Information relevant to documented



effected areas that the pipeline will transect, or that the pipeline will be in close proximity to, is provided in Section 8.4.3 of Draft Resource Report 8. See Table 8.4-4 for a listing of environmental sites listed by MP.

Although not anticipated, if contaminated or suspect groundwater is identified during trenching operations, the applicable agencies and FERC will be notified. Work in the area of the suspected contamination typically will be halted until the type and extent of the contamination is determined. The type and extent of contamination and federal and state regulations will determine the appropriate mitigation for these areas. In addition, NEXUS has developed a Spill Prevention, Control and Countermeasure ("SPCC") Plan, in compliance with Environmental Protection Agency regulations at 40 C.F.R. Part 112, that specifies cleanup procedures in the event of groundwater contamination from spills or leaks of fuel, lubricants, coolants, or solvents (*see* Appendix 1B2 in Draft Resource Report 1). NEXUS and its contractors will implement the SPCC Plan to manage and minimize the potential effects on groundwater from any existing contaminated sites and potential spills during construction.

Septic systems located in the vicinity of the Project may also be encountered during the construction. NEXUS is working with landowners along the proposed route to identify septic systems within the study corridor or close proximity to the study corridor limits. NEXUS will continue to work with affected landowners regarding the presence of private septic systems along the proposed alignment. Septic systems located adjacent to the construction workspace will be identified on residential construction plans (Draft Resource Report 8, Appendix 8A) to alert construction crews to the presence of the system and to avoid inadvertent damage to the system that could lead to groundwater contamination. The Project will implement its Project E&SCP; (Draft Resource Report 1, Appendix 1B1) to minimize or avoid any potential disturbances to contaminated materials encountered during construction and will dispose of or mitigate for any hazardous materials uncovered, in accordance with federal, state, and local requirements.

2.2.5 Groundwater Impacts and Mitigation

Construction activities associated with the NEXUS Project that have the potential to impact groundwater include shallow excavations, HDD, hydrostatic test discharges, and potential spills or leaks of hazardous liquids from the refueling of construction vehicles or storage of fuel, oil, and other fluids. As described in Section 2.2.4, the Project has the potential to encounter contaminated groundwater in some locations. NEXUS will implement proper groundwater management procedures at the intersection of Project-related construction activities with contaminated groundwater sites to avoid or minimize potential impacts. Depending on the volume requiring management, groundwater management procedures will include the use of portable treatment systems and/or will include transporting groundwater to a treatment facility. Additionally, clay trench breakers or equivalent will be utilized if necessary to prevent the potential migration of contaminated groundwater along the trench.

Spill Prevention Control and Countermeasures Plan

Potential spills or leaks of hazardous liquids, resulting from the refueling of construction vehicles or storage of fuel, oil, and other fluids during construction, could contaminate groundwater. NEXUS SPCC Plan for construction addresses preventative measures to be used to minimize the potential impacts of a hazardous material spill on groundwater resources. Spill reporting requirements will be conducted in accordance with all federal, state, and local regulations. The SPCC Plan in included in Appendix 1B2 of Draft Resource Report 1.

2.2.5.1 Pipeline Facilities

Short-term and highly localized impacts to groundwater could potentially occur during various construction stages, particularly during clearing and grading, trench excavation, and blasting if required. During construction, local water table elevations could be affected by trenching and backfilling, thereby temporarily impacting springs and wells in close proximity. In locations where groundwater is near the



surface, trench excavation may intersect the water table in low-lying areas. Each of these possible impacts is short-term and temporary; a long-term impact on groundwater resources is not anticipated as a result of this Project.

Dewatering of the pipeline trench may be required in areas with a high water table or after a heavy rain. Removal of the water from the trench may result in a temporary fluctuation in local groundwater levels. Trench dewatering activities are usually completed in a few days within a particular location; therefore, impacts are expected to be temporary and localized to the dewatering area. All trench water will be discharged into well-vegetated upland areas or properly constructed dewatering structures to allow the water to infiltrate back into the ground, thereby minimizing any long-term impacts on the water table.

The Project is not expected to adversely impact groundwater quality and/or supply. The Project proposes to implement construction practices designed to reduce and/or mitigate potential impacts on groundwater during construction as detailed in the Project E&SCP and SPCC Plan (*see* Appendices 1B1 and 1B2 of Draft Resource Report 1), the FERC Upland Erosion Control, Revegetation, and Maintenance Plan ("FERC Plan"), and FERC's Wetland and Waterbody Construction and Mitigation Procedures ("FERC Procedures") (FERC, 2013) including:

- Installation/maintenance of temporary and/or permanent erosion control structures until soil stabilization is achieved;
- Monitoring of dewatering operations and discharging trench-water to appropriate receiving structures or filter bags as required;
- Use of secondary containment structures when working in/near sensitive resource areas;
- Enforcing restrictions on refueling locations and storage of hazardous substances;
- Revegetation of disturbed workspace locations following installation of the Project facilities;
- Installation of permanent trench plugs, where needed to maintain existing groundwater flow patterns;
- Limited and controlled use of herbicides on the ROW only in appropriate circumstances (where
 other options are impractical or not available) and consistent with applicable laws, rules, and
 regulations, as well as any enforceable limitations and controls arising from agency consultations;
 and
- Prohibiting use of herbicides in or within 100 feet of wetlands or waterbodies, except as allowed by the appropriate land management agency or state agency.

The Project evaluated pipeline routing and associated aboveground facility site options, based on existing land use, utility line infrastructure, regional topography, potential adverse effects on the environment, public health and safety, population density, and construction safety and feasibility considerations.

During the initial landowner contacts to acquire survey access permission, the Project's land representatives requested information on the locations of wells, springs, and septic systems from landowners. In addition survey crews have been identifying wells and septic systems in the field. To date, there have been no springs identified along the Project that are being used as a drinking water source. Regardless, NEXUS will work with affected landowners to reconfigure work areas or modify the pipeline alignment to avoid impacts to springs used as water sources if identified. The Project's land representatives will continue to request information on the location of wells, springs, and septic systems prior to the commencement of construction to complete an inventory of these structures within 150 feet of the Project.

The Project will offer landowners pre- and post-construction testing of water wells within 150 feet of the construction workspace and will test for yield and turbidity parameters. A Project representative will



contact landowners after construction testing events for any significant differences in the well yield between pre- and post-construction sampling that cannot be attributed to naturally occurring conditions, such as seasonal groundwater level fluctuations. The Project will compensate the landowner for the installation of a new well or otherwise arrange for provision of suitable water supplies.

If any blasting is required within 150 feet of any water supply wells, pre-blast and post-blast inspections by NEXUS will also be performed as necessary. All blasting will be performed by registered licensed blasters, in accordance with all appropriate state approvals, and will be monitored by certified blasting inspectors. The contractor will be responsible for supplying explosives and blasting materials that are perchlorate-free in order to eliminate the potential for perchlorate contamination of groundwater. During blasting, NEXUS will monitor ground vibrations at the nearest structure or water well that is within 150 feet of the blast site. In the unlikely event that any water supply well is damaged as a result of blasting, NEXUS will ensure that a temporary source of water is provided until the damaged water well is restored to its former capacity and quality, that a replacement source is provided, or that the landowner is fairly compensated for the damages. Draft Resource Report 7 identifies areas with mapped shallow bedrock that may require blasting.

Where possible, the Project will seek to avoid affecting septic systems and leach fields. Where affecting a septic system, the Project will work with the landowner to relocate the system, and appropriately compensate the landowner for any additionally lost usable land and associated costs.

Additional surveys and landowner contacts to identify and re-confirm the location of springs, wells and septic systems are ongoing and will continue prior to construction. If requested by the landowner, springs used as a water source that are located within 150 feet of construction workspaces will be reviewed by an expert in the field to make a determination as to whether the normally planned construction activities are expected to have any effect. If any impacts are anticipated to occur, the expert will recommend construction alterations for consideration to avoid impacting these areas.

2.2.5.2 Aboveground Facilities

Construction of the new compressor stations and M&R stations will require some grading, and the installation of paved surfaces, buildings, concrete pads and gravel surfaces. Post-construction stormwater management measures will be installed to treat the difference in stormwater runoff volume from pre- to post-construction conditions for the design storm event in accordance with federal and state requirements. NEXUS anticipates that new impervious and graveled surfaces required for the facility will be minor in comparison to the mostly undeveloped area surrounding the compressor station sites. Therefore, it is unlikely that aboveground facility construction and operation will result in any meaningful change in groundwater recharge outside of the station limits.

Hazardous material storage at aboveground facilities will be designed with respect to applicable engineering, safety, and environmental standards. The facilities will include leak detection and spill containment structures commensurate with the quantity of materials stored and will be maintained in compliance with all applicable federal and state regulations and permits.

2.3 Surface Water Resources

Surface water resources were initially identified using USGS topographic maps and subsequently verified and surveyed in the field. Surface water resources documented along the NEXUS Project area include major rivers, streams, ponds, and associated tributaries. The following sections describe the surface water resources along the NEXUS Project area.

2.3.1 Watersheds

The U.S. is divided and subdivided into successively smaller watersheds that are delineated by the USGS. Watersheds are identified using the Hydrologic Unit Code ("HUC"). Each hydrologic unit is identified by a unique HUC consisting of two to twelve digits based on the six levels of classification: 2-digit HUC first-



level (region), 4-digit HUC second-level (subregion), 6-digit HUC third-level (accounting unit), 8-digit HUC fourth-level (cataloguing unit), 10-digit HUC fifth-level (watershed), and 12-digit HUC sixth-level (subwatershed) (NRCS, 2007).

The NEXUS Project facilities are located within the Ohio River and Lake Erie drainage basins and cross thirteen cataloguing units (8-digit HUC) and 102 subwatersheds (12-digit HUC). Figure 2.3-1 identifies the watersheds crossed by the Project facilities, Table 2.3-1 provides the beginning and end MP of each cataloguing units and subwatersheds crossing.

2.3.2 Waterbodies Crossed by the Project

A waterbody, as defined by the FERC, is "any natural or artificial stream, river, or drainage with perceptible flow at the time of crossing, and other permanent waterbodies such as ponds and lakes." The U.S. Army Corps of Engineers ("USACE") has jurisdiction over "waters of the U.S., including wetlands," pursuant to Section 404 of the federal Clean Water Act. Waterbodies include streams with perennial, intermittent, or ephemeral flow. Perennial streams flow year-round. Typically, intermittent streams will flow continuously during wet seasons, but may be dry for a portion of the year. Ephemeral streams flow only for a short period following major rainfall events. Intermittent and ephemeral streams may be dry at the time of construction, depending on the time of year and rainfall conditions.

The term "waterbody" as it is used in this Draft Resource Report is inclusive of all "waters of the U.S.," other than wetlands, that are potentially jurisdictional to the USACE, and all waterbodies as defined by the FERC. Potential surface water resources within the Project area were initially identified using USGS 7.5-minute topographic maps and then field verified during waterbody and wetland delineation surveys. Field surveys for wetlands and waterbodies commenced in 2014 and are ongoing (*see* Draft Resource Report 1, Section 1.14).

Sixty-two percent of the Project facilities were surveyed for the presence of waterbodies along the Project in 2014. The remaining thirty-eight percent were not surveyed due to lack of survey permission and winter conditions during the fall of 2014. For the Project areas not surveyed in 2014, NEXUS utilized publically available USGS topography quadrangles, 2-foot contour LIDAR information, and aerial photography to approximate waterbody boundaries. Approximated waterbodies are shown as orange on the alignment sheets and are listed in Table 2.3-2 as approximated stream "AS" or approximate pond "AP". Surveys along the NEXUS Project are currently ongoing and additional information will be in the updated Resource Report 2 to be filed when NEXUS files its NGA 7(c) Certificate Application with the Commission in November 2015.

2.3.2.1 Pipeline Facilities

The NEXUS Project pipeline facilities will cross 490 waterbodies. Of the 490 waterbodies, 6 ponds and 484 streams were identified. Of the waterbodies crossed, 179 perennial streams were identified and the remaining 305 stream crossings consists of small, intermittent or ephemeral stream flow types. According to the FERC classification system, there are 294 minor (0 to 10 feet bank width), 186 intermediate waterbodies (greater than 10 and less than 100 feet bank width) and 10 major waterbodies (greater than 100 feet bank width) crossed by the NEXUS Project. Although the majority of the waterbodies along the NEXUS Project will be crossed with either dry or wet cut construction methods, there are eighteen waterbodies that will be crossed using a horizontal directional drill ("HDD") method. See Table 2.3-3 for a complete list of waterbodies that are proposed to be crossed using the HDD method along the NEXUS Project corridor. See Table 2.3-2 for a complete list of the waterbodies crossed by the pipeline facilities.

Temporary and Permanent Access Roads

Wetland and waterbody surveys are currently underway for temporary and permanent access roads. It is the intention of NEXUS to design access roads to avoid any direct wetland or waterbody impacts as to the



extent practicable. NEXUS will provide the FERC any proposed waterbody crossings at these temporary and permanent access roads in the updated Resource Report 2 to be filed when NEXUS files its NGA 7(c) Certificate Application with the Commission in November 2015.

Aboveground Facilities

Field surveys have been completed at the four compressor station sites. All compressor stations have been sited and designed to avoid impacts to wetland and waterbodies. Wetland and waterbody field surveys have not been completed within all the M&R Stations at this time but are underway. It is the intention of NEXUS to avoid wetland and waterbody impacts at M&R Stations to the extent practicable. NEXUS will provide the FERC any proposed aboveground facility waterbody impacts in the updated Resource Report 2 to be filed when NEXUS files its NGA 7(c) Certificate Application with the Commission in November 2015.

Pipe and Contractor Ware Yards

The NEXUS Project has identified seven potential pipe and contractor ware yards along the Project. Wetland and waterbody surveys are currently underway, but it is the intention of NEXUS to avoid any wetland and waterbody impacts for the use of pipe and contractor yards use. NEXUS will provide the FERC any proposed waterbody crossing at these yards in the updated Resource Report 2 to be filed when NEXUS files its NGA 7(c) Certificate Application with the Commission in November 2015. Proposed pipe yards and contractor ware yards are shown on USGS Quadrangle mapping located in Appendix 1A.

2.3.3 Surface Water Supplies and Surface Water Protection Areas

NEXUS conducted a review of publically available data for public surface water intakes located within three miles downstream of the Project waterbody crossing locations. Three surface water intakes were identified in Ohio and one was identified in Michigan. See Table 2.3-4 for summary of surface water intakes that are located within three miles downstream of the Project. Table 2.3-5 indicates the surface water protection areas crossed by the NEXUS Project and Figure 2.3-2 depicts these locations along the Project.

Ohio

Surface public water systems, as described in Section 2.2.3, are regulated by OEPA's DDAGW. The OEPA mandates public surface water supply systems to establish a SWAPP. Ohio's public watershed areas include municipal watersheds and associated reservoirs as well as any state or locally designated surface water protection areas. Based on OEPA GIS data, the Project crosses surface water protection areas located within the greater Ohio River SWAPP (MP 0-69.4), West Branch Black River SWAPP (MP 87.8-91.3), and Swanton Reservoir SWAPP (MP 188.4-192.4). Although the Project crosses segments of these SWAPPS, NEXUS will avoid direct impacts to these surface water intakes by adhering to NEXUS E&SCP along the entire Project and utilizing HDD and conventional bore crossing methods for numerous streams crossings. Refer to Appendix 1B1 in Draft Resource Report 1 for the Project E&SCP and Section 2.3.9 for waterbody crossing methods.

The surface water intakes associated with Ohio River SWAPP are located along the River, which is located at least sixteen miles from the NEXUS Project. In addition, the NEXUS Project is located approximately 20.5 miles for the nearest Ohio River surface water intake (East Liverpool, Columbiana County, Ohio). Due to significant distance from Project and utilization of the Project-wide E&SCP, NEXUS will not affect the Ohio River or its' associated surface intakes. In addition, NEXUS will utilize an HDD crossing at the West Branch Black River and a conventional bore crossing method for the Swan Creek crossing (intake for Swanton Reservoir) to avoided direct impacts to these public source water streams.



Michigan

Michigan determines surface water protection areas by identifying the watershed upstream from a surface water intake. The surface water protection area for an intake is defined as a critical assessment zone ("CAZ"). A 3,000-foot radius is applied to a CAZ for river intakes and 1,000-3,000-foot radius is applied to shore intake (i.e. lake shore) (USGS and MDEQ, 2002).

Based on the *Michigan's Source-water Assessment Program- Surface-Water Assessments Leading to Protection Initiatives* 2002 report, NEXUS has determined that Blissfield surface water intake along the River Raisin (MP 209.8) is located within three miles of the Project pipeline facilities, but its CAZ intake is located outside of the Project crossing of the River Raisin. In addition, NEXUS is proposing to utilize a conventional bore crossing method of the crossing of the River Raisin. This crossing method will install the pipeline under the river and therefore there will be no impact to the river or the Blissfield surface water intake and water supply. There are no other identified public surface water intakes within 3-miles of the Project.

2.3.4 Sensitive Surface Waters

Sensitive surface waters include all waterbodies that have been designated for intensive water quality management, waters containing federally- or state-listed threatened or endangered species or critical habitats, any waters afforded national or state designated status, and Section 10 Navigable Waterways. Sensitive surface waters are summarized in Table 2.3-6 by milepost and applicable designated categories. See Section 2.3.5 for waters that do not meet state water quality standards and are considered impaired.

Endangered, Threatened, and Special Concern Species and Fisheries of Special Concern

The United States Fish and Wildlife Service ("USFWS"), the Ohio Department of Natural Resources ("ODNR"), and the Michigan Department of Natural Resources ("MDNR") identified that the NEXUS Project area is located within the range of federal and state listed species. Survey work for federal and state listed species is ongoing for waterbodies located along the Project route. Refer to Draft Resource Report 3 for more information regarding federal and state listed species associated within waterbodies crossed by the Project.

Federal and State Designated Waters

NEXUS reviewed available state regulations and mapping, the National Rivers Inventory ("NRI") (NPS, 2011), and National Wild and Scenic River System maps (National Wild and Scenic River System, 2014) to identify federal or state recognized exceptional quality waters crossed by the Project. The NRI is a listing of more than 3,400 free flowing river segments in the United States that are believed to possess one or more "outstandingly remarkable" natural or cultural values ("ORVs") judged to be of more than local or regional significance. All federal agencies must seek to avoid or mitigate actions that would adversely affect one or more NRI segments (NPS, 2011). The National Wild and Scenic Rivers System was created by Congress in 1968 (Public Law 90-542; 16 U.S.C. 1271 et seq.) to preserve certain rivers with outstanding natural, cultural, and recreational values in a free-flowing condition for the enjoyment of present and future generations. The 1968 Wild and Scenic Rivers Act encourages river management that crosses political boundaries and promotes public participation in developing goals for river protection (National Wild and Scenic River System, 2014). Federally and state designated waters are discussed below and are summarized by MP in Table 2.3-6.

Ohio

The OEPA Antidegredation rule 3745-1-05 of the Administrative Code identifies stream segments that have exceptional water quality, special ecological significance, or recreational value. NEXUS has determined the Vermillion River (MP 100.4) to be an outstanding water based on its ecological value, the Huron River (MP 112.9) as having a superior high quality water, and the Maumee River (MP 176.3) for being an



outstanding recreational water. NEXUS is proposing to use the HDD crossing method for these OEPA streams designated as outstanding and superior water quality which will avoid impacts to these resources. See Table 2.3-3 for a list of proposed HDDs.

Review of the NRI identified listed river segments crossed by the NEXUS Project in Ohio. Tuscarawas River (MP 46.0) is listed as having the following ORVs: scenery, recreation, and history. The Vermillion River (MP 100.4) is listed as having the following ORVs: recreation, geology, and wildlife. The Sandusky River (MP 141.6) is listed as having the following ORVs: recreation and history. NEXUS is proposing to use the HDD crossing method for all of the NRI designated stream crossed by the Project which will avoid impacts to these resources. See Table 2.3-3 for a list of proposed HDDs.

NEXUS reviewed the National Wild and Scenic River list and determined that there are no federally designated Wild and Scenic Rivers crossed by the Project in Ohio.

Michigan

NEXUS reviewed Michigan Department of Natural Resources list of designated natural streams as well as the NRI and National Wild and Scenic River listing and has determined that the Project does not cross any federally or state designated waters.

Navigable Waters

Under Section 10 of the Rivers and Harbors Act of 1899, the USACE has authority to regulate construction in navigable rivers of the United States, which are defined under 33 Code of Federal Regulations § 329 as those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. The NEXUS Project crosses four Section 10 navigable waters including the Tuscarawas River (MP 46.0), Huron River (MP 112.9), Sandusky River (MP 141.6), and the Maumee River (MP 176.3) in Ohio. There are no navigable waters crossed in Michigan. NEXUS is proposing to utilize HDD crossing methods avoid impacts to navigable waters crossed by the Project (*see* Table 2.3-3).

2.3.5 Impaired Surface Waters

States are mandated to adopt and review water quality standards under Section 303(c) of the Clean Water Act. Water quality standards define the beneficial designated uses that are protected for each waterbody and the associated water quality criteria that must be met to protect those uses. Water quality classifications are based on the designated uses set under the water quality standards. A waterbody that does not achieve water quality criteria for one or more of its designated uses is considered impaired.

To determine whether any impaired waterbodies will be affected by the Project, NEXUS reviewed the 303(d) lists for Michigan and Ohio. The Total Maximum Daily Load ("TMDL") program, established under Section 303(d) focuses on identifying and restoring polluted rivers, streams, lakes and other surface waterbodies. A TMDL is a written, quantitative assessment of water quality problems in a waterbody and contributing sources of pollution. TMDLs are used to identify impaired waters.

In Ohio, waterbodies classified in USEPA Categories 4 and 5 are considered Impaired Surface Waters. In Ohio Category 4 includes waterbodies where the TMDLs have been completed or cannot be completed due to the nature of the contamination.

Ohio Category 5 includes waterbodies where TMDLs need to be developed by the state. For Michigan, the MDEQ provides a list of only Category 5 waterbodies that are listed as Impaired. A Category 5 waterbody in Michigan indicates that available data and/or information suggests that at least one designated use is not being supported or is threatened, and a TMDL is required.

NEXUS reviewed both the Ohio and Michigan 2014 Section 303d lists of impaired streams. A total of 177 impaired streams along the NEXUS Project mainline pipeline were identified. Of those 177 impaired



streams, 150 are located in Ohio and 27 are located in Michigan. Table 2.3-7 identifies each impaired waterbody by milepost and includes the cause of impairment and state TMDL status for each stream in Ohio and Michigan.

2.3.6 FEMA Flood Zones

NEXUS reviewed available state and federal digital flood data to identify proposed crossings of areas subject to flooding and high volume flows. Flood zones are geographic areas that the Federal Emergency Management Agency ("FEMA") has defined according to varying levels of flood risk and type of flooding. These zones are depicted on the published Flood Insurance Rate Map or Flood Hazard Boundary Map. Special Flood Hazard Areas represent the area subject to inundation by 1-percent-annual chance flood (FEMA, 2015). All aboveground facilities have been sited outside of FEMA flood zones. A small portion of ware yards 2-1 and 3-2, which will only be used as temporary workspace with no change to the flood storage capacity, are located within a mapped flood zone. Figure 2.3-3 depicts mapped FEMA Flood Zones located along the Project and Table 2.3-8 identifies FEMA Flood Zones crossed by the Project.

2.3.7 Construction Permits

NEXUS will apply for applicable federal and state permits, approvals, and licenses related to the construction and installation of the pipeline across regulated waterbodies and wetlands and the withdrawal or discharge of hydrostatic test water. Table 1.13-1 in Draft Resource Report 1 provides a list of the permits and authorizations required for construction of the Project facilities.

2.3.7.1 Surface Water Permits

NEXUS will acquire all applicable construction-related permits at the federal and state level, including Clean Water Act Section 404 authorization with the USACE for wetland impacts. Federal Clean Water Act Section 401 water quality certifications will be requested from the OEPA. Hydrostatic test water discharge will require a National Pollutant Discharge Elimination System general permit from the OEPA. Table 1.13-1 in Draft Resource Report 1 lists all federal and state environmental permits that are required for the NEXUS Project.

2.3.8 Hydrostatic Test Water

In compliance with U.S. Department of Transportation regulations at 49 CFR Part 192, NEXUS will conduct hydrostatic testing on the pipeline facilities prior to placement in service. Potential sources of hydrostatic test water identified to date for the proposed Project pipeline and aboveground facilities, as well as the eleven proposed HDD locations are provided in Table 2.3-9, Table 2.3-10, and Table 2.3-11 respectively. Test sections were selected based on several factors, including pipe parameters, the elevation changes within the alignment, the target design pressure, and the class locations of the pipeline. To the extent practicable, NEXUS will transfer hydrostatic test water from one test segment to the next, which will reduce the volume of test water required.

The source waters were selected based on proximity to the construction area, proximity to the required test sections, and ability to supply a sufficient volume of water for the testing process without compromising normal waterbody dynamics and ecology. NEXUS will provide the final withdrawal and discharge volumes for each potential water source for the pipeline facility segments and provide that to the FERC in the final Application.

Preliminary evaluations have identified eleven different waterbodies and one municipal water source as potential hydrostatic test water sources for the Project pipeline facilities. Except for the Wadsworth and Clyde Compressor Stations, hydrostatic test waters used for the proposed compressor and M&R stations will likely be withdrawn from municipal water sources. At this time NEXUS is investigating the option of installing on-site water wells at the Wadsworth and Clyde Compressor Stations that would provide the source water for hydrostatic testing. NEXUS is proposing eleven HDDs along the Project pipeline facilities,



ten of which are designed to cross the major and sensitive surface waterbodies, and the remaining HDD is proposed for crossing Interstate 94 in Michigan. NEXUS will propose to withdraw hydrostatic test water from the waterbodies crossed by the HDD method and will utilize municipal water for the Interstate 94 crossing. Refer to Table 2.3-9, Table 2.3-10, and Table 2.3-11 for milepost references, estimated withdrawals and discharge volumes, and other specific information regarding the proposed hydrostatic test waters.

Environmental impacts from withdrawal and discharge of hydrostatic test water will be minimized by using the measures prescribed in the NEXUS Project E&SCP. To minimize impacts NEXUS will:

- Locate hydrostatic test manifolds outside of wetlands and riparian areas, to the extent practicable;
- Comply with all appropriate federal and state permit requirements;
- Not withdraw from or discharge into state-designated special waters, waterbodies that provide
 habitat for federally listed threatened or endangered species, or waterbodies designated as public
 water supplies, unless the relevant federal, state, and local permitting agencies grant written
 permission;
- Screen the intake hose to prevent entrainment and impingement of fish and other aquatic life;
- Maintain ambient, downstream flow rates to protect aquatic life, and provide for all designated water uses, including withdrawals by existing downstream users;
- Discharge test water to a well-vegetated and stabilized area, if practical, and maintain at least a 50-foot vegetated buffer from adjacent waterbody/wetland areas. If an adequate buffer is not available, sediment barriers or similar erosion control measures must be installed;
- Regulate discharge rate, use energy dissipation device(s), and install sediment barriers, as necessary, to prevent sedimentation and streambed scour;
- Reuse hydrostatic test water where practicable; and
- Comply with state and federal discharge requirements once testing is complete.

NEXUS does not anticipate using chemicals for testing or for drying the pipeline following hydrostatic testing. Upon the completion of hydrostatic testing, the test water will be discharged into dewatering structures located in upland areas within the construction work area in accordance with the NEXUS Project E&SCP and all applicable permits. Samples of this outflow will be collected and tested in accordance with the federal and state permit requirements.

2.3.9 Waterbody Construction Methods

The Project pipeline facilities will cross a total of 490 waterbodies. A total of 420 will be crossed by centerline and 70 are located within the construction workspace and will either be avoided or temporarily crossed using equipment bridges. The waterbody construction procedures described below and within the Project E&SCP are consistent with those prescribed in the FERC Procedures May 2013 version.

2.3.9.1 General Procedures

Following surveying and staking, it is necessary to mobilize the required equipment at the waterbody crossing. To facilitate this process, temporary bridges may be constructed across the waterbody during clearing and grading activities for construction equipment (*see* the Project E&SCP located in Appendix 1B1 of Draft Resource Report 1). Temporary bridges and associated supports are removed as part of the restoration process.



In general, construction equipment and vehicle refueling and lubricating takes place in upland areas located more than 100 feet from the edge of a waterbody (or wetland). In addition, fuels, lubricating oils, petroleum products, and other hazardous materials are not stored within 100 feet of an aquatic resource. However, instances may arise where equipment refueling and lubrication near or in a waterbody are necessary. For example, stationary equipment, such as a hydrostatic test water pump, may need to operate continuously on the bank of a waterbody. The Project E&SCP and SPCC Plan (*see* Appendices 1B1 and 1B2 of Draft Resource Report 1) address the handling of fuel and other hazardous materials in or within 100 feet of a waterbody, which may be approved with conditions by the Lead Environmental Inspector ("EI").

If trench dewatering is necessary in or near a waterbody, the removed trench water will be discharged into an energy dissipation/sediment filtration device, such as a geotextile filter bag or straw bale/geotextile structure located away from the water's edge to prevent heavily silt-laden water from flowing directly into the waterbody in accordance with the Project E&SCP and all applicable permits. Monitoring will be conducted to ensure that all flow from the structure is infiltrating into the underlying soil. Refer to Section 1.7 of Draft Resource Report 1 for additional waterbody construction-related information.

2.3.9.2 Additional Temporary Workspace

In general, additional temporary workspace ("ATWS") is typically required on both sides of a waterbody crossing to store materials and trench spoil. In adherence to the FERC's Procedures, the ATWS will be located at least 50 feet away from the waterbody edge, topographic and other site specific conditions permitting and except where the adjacent upland consists of cultivated or rotated cropland or other disturbed land. If conditions do not permit a 50-foot setback where required, NEXUS will request deviations from the FERC's Procedures. Table 2.3-12 identifies the locations where deviations from the FERC Procedures (2013) ATWS waterbody setback are required along the Project pipeline facilities.

2.3.9.3 Clearing

Clearing involves the removal of all trees and brush from the construction workspace. Woody vegetation along the permanent easement is cleared to the edge of the waterbody; however, where available, a 50-foot wide herbaceous strip is left on the approach until immediately before construction to provide a natural sediment filter that helps minimize the potential for erosion immediately adjacent to the waterbody and sedimentation from cleared upland areas. With the exception of stream buffers and forested wetlands, stumps are typically removed over the width of the permanent ROW. Initial grading of the herbaceous strip is limited to what is needed to install the equipment bridge and, where a large grade cut is needed, to the extent necessary to safely implement the construction activity. After clearing and prior to grading activities, temporary erosion control devices (sediment barriers) will be installed and maintained adjacent to the waterbody and within the construction work area, as needed to further minimize the potential for sediment runoff.

2.3.9.4 Crossing Methods

To minimize potential impacts, waterbodies, streams and rivers will be crossed as quickly and safely as possible. Additionally, efforts will be made to plan work during dry conditions for intermittent and ephemeral channels, where practicable. Adherence to the construction procedures will ensure stream flow will be maintained throughout construction. Pending the results of ongoing geotechnical investigations, NEXUS proposes eleven HDDs along the Project route. Ten of the HDD's will avoid direct impact to a total of eighteen waterbodies. Sixteen of these waterbodies are located in Ohio, and two are located in Michigan. Proposed waterbody crossing methods for each waterbody crossed by the proposed pipeline are provided in Table 2.3-3.



Wet Crossing (Wet Open Cut)

Wet open cut crossings will be performed by using excavation equipment to trench across the waterbody. Equipment used to dig the trench will work from the waterbody banks, equipment crossings, or by straddling the trenchline where the width of the waterbody prohibits excavations solely from the banks. The depth of the trench will be sufficient to allow a minimum of five feet of cover over the pipeline below the streambed, provided rock is not encountered. Consistent with the FERC's Procedures, NEXUS plans to complete construction activities, except for blasting and other rock breaking measures, within 24 hours at minor wet open cut crossings and within 48 hours at intermediate wet open cut crossings. The Lead EI may adjust the final placement of the erosion and sediment control structures in the field to maximize effectiveness.

The following additional stipulations will apply to wet open cut crossings:

- Adherence to measures outlined for open wet cut crossings in the Project E&SCP (*see* Appendix 1B1 of Draft Resource Report 1).
- Use of equipment operating in the waterbody will be limited to that needed to construct the crossing;
- Material excavated from the trench will be kept to a minimum and will be stockpiled in the construction ROW at least 10 feet from the water's edge or in ATWS (located at least 50 feet from the water's edge);
- Material excavated from the trench will be used as backfill, unless federal or state permits specify otherwise:
- Any excess material will be removed from the body of water; and
- The waterbody bottom will be returned to its original contour.

NEXUS may choose to use mainline construction procedures across minor waterbodies where the open cut crossing method is proposed. In these instances, a flume pipe will be installed immediately after trenching is completed. The flume pipe will remain in place until the lowering-in process. The flume pipe will be removed just prior to lowering in the pipeline. The 24-hour restoration timeframe starts as soon as the flume is removed.

Dry Crossing (Dry Cut)

Dry crossing methods will involve installation of a flume pipe(s) and/or dam and pump prior to trenching to divert the stream flow over the construction area and allow trenching of the stream crossing in drier conditions isolated from the stream flow. A description of the Flumed crossing method and the Dam and Pump crossing method are included in the Project E&SCP (see Appendix 1B1 of Draft Resource Report 1). Spoil removed during the trenching will be stored away from the water's edge and protected by sediment containment structures. Pipe strings will be prefabricated into one continuous section on one bank and either pulled across the stream bottom to the opposite bank, floated across the isolated portion of the stream, or carried into place and lowered into the trench. Where these methods are employed, ATWS areas will be required for assembly of the pipe strings and spoil storage areas. Fisheries resources along the route are discussed in Draft Resource Report 3.

A wet open cut will be utilized for all waterbodies that are dry during the time of the crossing with no discernible or anticipated flow regardless of the designated waterbody crossing method. This method will utilize conventional construction techniques with no temporary diversion structures (e.g., flume pipes, cofferdams) required during construction of the crossing. Consistent with the FERC Procedures, NEXUS plans to complete construction activities within 24 hours at minor open cut waterbody crossings and within



48 hours at intermediate open cut crossings. A minimum cover depth of five feet will be maintained over the pipeline for all designated waterbodies crossed with the dry open cut method.

Conventional Bore Method (Bore)

In site-specific circumstances, a conventional bore may be used for waterbody crossings. This method is essentially the same as is used for road and railroad crossings, and the pipeline is installed by boring a hole under the waterbody. Specialized boring equipment is used. The soil and or rock are bored by a drill that contains a cutting head which cuts through the soil. Dummy casing which is slightly larger in diameter than the pipeline, is installed immediately behind the cutting head. An auger is placed inside the pipe to remove the cuttings. When completed, the bored hole is slightly larger than the outside diameter of the pipeline to be installed. Once the bore is completed, the pipeline section is welded to the boring pipe and pulled into place and the boring pipe is removed. Any voids between the pipeline and the subsoil are filled with grout (a sand-cement mix) to prevent settlement. This method requires that bore pits be excavated on each side of the waterbody so that the boring equipment can install the pipeline below the bottom of the stream channel.

Horizontal Directional Drill

The HDD method is a trenchless installation process by which the pipeline is installed beneath obstacles or sensitive areas utilizing equipment and techniques derived from oil well drilling technology. In principle, HDD construction is the least disturbing method upon the existing environment relative to any other conventional open trench operations. The installation is a multi-stage process consisting of establishing a small diameter pilot hole along the crossing profile, followed by enlargement of the pilot hole to accommodate pull back of the proposed pipeline.

The HDD rig and associated equipment (e.g., control cab, drill string pipe storage, office and tool storage trailers, power generators, bentonite storage, bentonite slurry mixing equipment, slurry pump, cuttings separation equipment, and heavy construction equipment) will be set up on one side of the waterbody crossing. Due to the specialized equipment and area requirements associated with HDD technology, additional temporary workspace will be requested to stage and successfully operate the equipment. Drilling will progress beneath the waterbody towards the other shore. The pilot hole is drilled using a small diameter drill string and a drill bit consisting of an asymmetric jetting head. The hydraulic cutting action of the drill head is remotely operated to control its orientation and direction. The position of the drill string is electronically monitored during the drilling operation. Directional corrections are made as necessary to ensure that the drill string maintains the desired profile and alignment.

Bentonite drilling fluid is delivered to the cutting head through the drill string to provide the hydraulic cutting action, lubricate the drill bit, stabilize the hole, and to remove cutting spoil as the drilling fluid returns to the entry point of the pilot hole to an excavated containment pit. Typically, drilling fluid returns are processed to remove the cuttings and the bentonite is recycled for use as the drilling operation continues. In the event that there is an inadvertent release of drilling fluid, lost circulation materials may be used in an attempt to seal the formation and reestablish drilling fluid returns to the entry and/or exit pits. Many types of lost circulation materials are available for use during HDD operations which are inert and environmentally benign. These can include wood fibers, cotton seed husks, ground walnut shells and other natural materials. Special polymers that swell to several times their original size when introduced to water can also be used. Which of these types of products are used is typically left to the discretion of the HDD Superintendent and the EI.

Water sources and volumes for HDD locations are discussed in Section 2.3.8, Hydrostatic Test Water, above. Drilling mud and cuttings will be recycled or disposed of at an approved upland location or disposal facility. No recovered drilling fluid will be disposed of in waterbodies or wetlands. Recovered materials



will be collected in containers for temporary storage prior to removal from the site and all containment structures will be removed from the site.

Enlarging the pilot hole is an incremental process accomplished with one to several reaming passes, depending upon the carrier pipe diameter and the subsurface geology. The rotating reaming/cutting tool is attached to the drill string at the exit point, and drawn back toward the drilling rig situated at the entry point of the pilot hole. Drill pipe is added behind the reaming tool as it progresses toward the drill rig to ensure that a continuous drill string is maintained in the drilled hole. Bentonite drilling fluid is again utilized during the reaming process to remove cutting spoil from the hole and stabilize the enlarged hole.

Additional temporary workspace or false ROW will be required along the other side of the waterbody to prefabricate the pipeline into one continuous section in preparation for the pullback. Once assembled, the pipeline is placed on pipe rollers so that it may be conveyed into the drill hole during the pullback operation. The fabricated pipe will be hydrostatically tested prior to pullback. Once reaming is completed, the prefabricated pipeline is attached to the drill string at the exit point, and drawn back toward the drilling rig at the entry location. Upon completion of pipeline construction, the entire line, including the incorporated HDD segment, will again be hydrostatically tested.

Currently, geotechnical surveys are being conducted at the proposed HDD crossing locations. Based on geotechnical survey result analysis, NEXUS will evaluate and confirm that each of the proposed HDD crossing locations is technically feasible. If the geotechnical survey results indicate a high risk of failure, NEXUS will reevaluate for a more feasible waterbody crossing method.

2.3.9.5 Drilling and Blasting at Waterbodies

To identify the need for drilling or blasting, the trench crew will drill the stream banks to determine if rock will be encountered during construction. Should these test holes identify the need for blasting, the ditch crew will prepare the trench line. If in-water blasting is determined to be necessary, NEXUS will follow mitigation measures provided in the Project Blasting Plan. The Blasting Plan is provided in Appendix 1B3 of Draft Resource Report 1. The mainline tie-in crews will then excavate the trench, install the pipeline, and restore the area in accordance with the Project E&SCP.

2.3.9.6 Restoration

Completed stream crossings will be stabilized within 24 hours of backfilling in accordance with the FERC Procedures and the Project E&SCP, weather and soil conditions permitting.

Within the construction ROW, a 25 foot-wide riparian strip adjacent to waterbodies will be allowed to revegetate with native plant species. A 10 foot wide area centered on the pipeline may be maintained to facilitate periodic pipeline corrosion/leak surveys. Any trees within 15 feet of the pipeline that have roots that could compromise the integrity of the pipeline coating may be cut and removed from the permanent ROW during maintenance activities.

2.3.10 Surface Water Effects and Mitigation

Construction activities associated with the Project that have the potential to affect surface waters include clearing activities, crossings of waterbodies for pipeline installation, HDD, hydrostatic test discharges, potential spills or leaks of hazardous liquids from the refueling of construction vehicles or storage of fuel, oil, and other fluids, and temporary access road crossings. Periodic maintenance of the ROW also has the potential to impact bank and riparian areas adjacent to waterbodies.

Pipeline construction across rivers and streams or adjacent to surface waters can result in temporary and long-term adverse environmental impacts if not properly completed. However, proper construction techniques and timing can ensure that any such effects are both temporary and minor. The primary effect associated with in-stream trenching is a temporary increase in turbidity and the resulting sedimentation that



may occur downstream. Surface runoff and erosion from the cleared ROW can also increase in-stream sedimentation during construction. Other potentially deleterious effects include accidental hazardous material spills resulting from refueling/maintaining construction equipment, fuel storage, or equipment failure in or near a waterbody, and could have immediate effects on aquatic resources and contaminate the waterbody downstream of the release point.

Long-term effects on water quality can result from alteration of stream banks and removal of riparian vegetation. If not stabilized and revegetated properly, soil erosion associated with surface runoff and stream bank sloughing can result in the deposition of large quantities of sediment into the waterbody. Increased turbidity from soil erosion and increased water temperature from vegetation removal can reduce the suitability of habitat for fisheries.

Minor long-term effects associated with pipeline operations and maintenance will largely be restricted to periodic clearing of vegetation within the permanent ROW at waterbody crossings as described earlier in this section. These maintenance activities will be consistent with the FERC Procedures, which have been fully integrated into the Project E&SCP (*see* Appendix 1B1 of Draft Resource Report 1).

2.3.10.1 Mitigation and Restoration Measures

To minimize effects at waterbody crossings during construction, operation, and maintenance, NEXUS will construct the Project in accordance with the best management practices ("BMPs") outlined in its Project E&SCP and with all federal and state regulations and permit requirements including stormwater permit requirements. NEXUS has sited the proposed ROW adjacent to existing maintained utility ROWs and agricultural fields at waterbody crossings to the extent practicable to minimize potential impacts on riparian buffers along stream corridors.

To minimize the potential for sedimentation to waterbodies and within public drinking water watershed areas caused by erosion from the adjacent landscape, trench spoil that is excavated from streambeds and banks will be placed at least 10 feet from the top of the waterbody bank or within ATWS located 50 feet from the water's edge, except where the adjacent upland consists of cultivated or rotated cropland or other disturbed land. Erosion control devices, such as silt fences and other BMP's, will be placed at the downslope edges of the spoil piles to prevent sediment from entering the waterbody.

Once the pipeline is placed in the trench, the temporarily-stored spoil material will be placed back in the trench and the stream banks and streambed will be restored as close to their pre-construction contours as feasible. Stream banks and riparian areas will then be revegetated in accordance with the Project E&SCP (Appendix 1B1 of Draft Resource Report 1) and any applicable agency requirements. During construction, the open trench may, on occasion, accumulate water from either groundwater intrusion or precipitation. In such cases, the trench will be dewatered periodically to allow for proper and safe construction. Additionally, major waterbody crossings and crossings of federal and state-designated waterbodies are proposed to be crossed utilizing HDD where practicable to avoid in-stream disturbance and to minimize tree clearing at stream banks along these sensitive waters.

Any hazardous materials, chemicals, lubricating oils, solvents, or fuels used during construction will be stored in upland areas at least 100 feet from wetlands and waterbodies as required by the Project SPCC Plan. All such materials and spills (if any) will be handled in accordance with NEXUS' SPCC Plan. Except where absolutely necessary, or required to otherwise minimize overall effects to the environment, there will be no refueling or lubricating of vehicles or equipment within 100 feet of a waterbody. Under no circumstances will refuse be discarded in waterbodies, trenches, or along the construction corridor. In accordance with the SPCC Plan, NEXUS will conduct routine inspections of tanks and storage areas to help reduce the potential for spills of hazardous materials (*see* Appendix 1B2 of Draft Resource Report 1). NEXUS will consult with federal and state agencies regarding the potential to encounter contaminated



sediments along the Project. In the event that contaminated sediment areas are confirmed, NEXUS will work with federal and state agencies to develop appropriate mitigation.

2.3.10.2 Hydrostatic Test Water

The piping associated with all Project pipeline facilities will be hydrostatically tested for structural integrity prior to being placed in service. Testing will be completed by capping installed pipe facilities with test manifolds, filling these segments with water, and maintaining a test pressure in excess of normal operating pressures for a specified period of time (typically 8 hours). Hydrostatic testing will be conducted on this Project in a manner that meets or exceeds the U.S. Department of Transportation "Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards" (49 CFR Part 192).

NEXUS will employ measures designed to reduce the likelihood of entrainment or impingement of juvenile and adult fishes during hydrostatic test water withdrawal operations. NEXUS will attempt to avoid low-flow conditions to limit any potential effect on downstream aquatic resources. Hydrostatic test water intake structures will be floated so they are not laying on the streambed and screened with wire to prevent larger fish from entering the intake structure. The screen around the intake will be fabricated to provide an adequate surface area of fine meshed screen designed to reduce the approach velocity to prevent impingement or entrainment of small fish and/or macroinvertebrates. NEXUS will obtain necessary permits for water withdrawal as required to be implemented during surface water withdrawals to maintain adequate stream flow rates and to ensure adequate volumes are available downstream for withdrawals by existing users.

Upon completion of the hydrostatic test, environmental effects from the discharge of hydrostatic test water will be minimized by using the measures described in the Project E&SCP. See Section 2.3.8 above of procedures utilized by NEXUS to avoid and minimize impacts to waterbodies during hydrostatic testing.

2.4 Wetlands

Wetlands are defined as areas inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions. Typical wetlands include swamps, marshes, wet meadows, and similar areas.

NEXUS identified, located, classified, and delineated wetland resources within the Project area through field surveys conducted in 2014 and surveys are currently ongoing in 2015. Jurisdictional wetlands crossed by the Project were field delineated in accordance with the USACE's Wetlands Delineation Manual (Environmental Laboratory, 1987), Regional Supplement to the Corps of Engineers Wetland Delineation Manual: North Central Northeast Region (Version 2) and Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest (Version 2.0) (USACE 2012).

Sixty-two percent of the Project facilities have been surveyed for jurisdictional wetlands located along the Project. The remaining thirty-eight percent was not surveyed due to lack of survey permission and winter conditions during the fall of 2014. For the Project areas not surveyed in 2014, NEXUS utilized publically available National Wetlands Inventory ("NWI"), USGS topography quadrangles, 2-foot contour LIDAR information, and aerial photography to approximate wetland boundaries. Approximated wetlands are shown as orange on the alignment sheets and are indicated as approximate wetland boundary ("AWB"). Wetland delineation efforts are continuing and the wetland information will be in the updated Resource Report 2 to be filed when NEXUS files its NGA 7(c) Certificate Application with the Commission in November 2015.

2.4.1 Existing Conditions

Wetland types were assigned based on the NWI classifications as described in Cowardin et al., 1979. NWI maps for the Project area are provided in Appendix 1A, Volume II-B of Draft Resource Report 1. The USFWS wetland classification system described by Cowardin et. al. (1979) was used to classify the wetlands that will be affected by the Project. The wetlands in the Project area were delineated as Palustrine



Forested ("PFO"), Palustrine Scrub-Shrub ("PSS"), Palustrine Emergent ("PEM"), Palustrine Unconsolidated Bottom ("PUB"), or a combination of these four cover types. Palustrine systems include all non-tidal wetlands that are dominated by trees, shrubs, persistent emergent, and emergent mosses or lichens and all wetland that occur in tidal areas where salinity due to ocean-derived salts is below 0.5 percent. The palustrine system was developed to group vegetated wetlands, commonly referred to as marshes, swamps, bogs, and prairies. This system includes ponds and may be situated shoreward of lakes, river channels, estuaries, and river floodplains or in isolated catchments or on slopes (Cowardin et. al., 1979). All of the wetlands identified along the Project route are classified as palustrine systems (*see* sections below).

A brief description of the wetland cover types and associated vegetative communities crossed by the Project are detailed in Section below. Wetlands in the Project area are listed in Table 2.4-1 by identification numbers, MPs, and cover type(s). The table also provides calculated temporary and permanent wetland effects associated with the construction and operation of the Project, which are further discussed in Section 2.4.4. Table 2.4-2 provides a summary of wetland effects by wetland type for the Project.

Palustrine Forested Wetlands (PFO)

Palustrine forested wetlands are characterized by woody vegetation that is 6 meters (approximately 20 feet) tall or taller and normally include an overstory of trees, an understory of young trees or shrubs, and an herbaceous layer (Cowardin et. al., 1979). Among the many types of forested wetlands in the U.S. are maple swamps, floodplain or bottomland hardwood swamps, forested bogs, cypress-gum (tupelo) swamps, bay swamps, wet flatwoods, and pine swamps and lowlands (Tiner, 1999). The forested wetlands along the Project are classified as palustrine forested broad-leaved deciduous. The forested wetlands along the route were typically found along floodplains and poorly drained basins (depressions). Generally, these wetlands have seasonally flooded inorganic, poorly drained mineral soils. Plants often associated with forested wetland communities in Ohio and Michigan are: red maple (Acer rubrum), slippery elm (Ulmus rubra), green ash (Fraxinus pennsylvanica), black willow (Salix nigra), eastern cottonwood (Populus deltoides), pin oak (Quercus palustris), shagbark hickory (Carya ovata), silver maple (Acer sacharinum), and box elder (Acer negundo). Shrub species observed in PFO wetlands can consist of spice bush (Lindera benzoin), multiflora rose (Rosa multiflora) and redoiser dogwood (Cornus sericea). Depending on canopy cover, hydrology and soil characteristics, the following species can be observed as an herb layer in PFO wetlands: skunk cabbage (Symplocarpus foetidus), fowl mannagrass (Glyceria striata), stout wood reed (Cinna arundinacea), garlic mustard (Allaria petiolata), white avens (Geum canadense), sensitive fern (Onoclea sensibilis), poison ivy (Toxidendron redicans), jewel weed (Impatiens capensis) and various Carex species.

Palustrine Scrub-Shrub Wetlands (PSS)

Scrub-shrub wetlands are dominated by woody vegetation less than 20 feet in height (Cowardin et. al., 1979). The species found in PSS wetlands include true shrubs, saplings, young trees, and trees or shrubs that are small or stunted because of environmental conditions. Scrub-shrub wetlands may include habitats where the climax community consists of shrub species such as a buttonbush swamp, or where secondary-growth habitat composed of shrub or sapling species is present due to recent disturbance. In cases of disturbance or where individuals do not reach 20 feet due to other environmental conditions, sapling species composition for scrub-shrub wetlands may overlap with species described above for forested wetlands. These shrub dominated wetlands are commonly called bogs, pocosins, shrub-carrs, or simply shrub swamps (Tiner, 1999). Vegetation communities for PSS wetlands in Ohio and Michigan consisted of the following species: steeple bush (*Spiraea tomentosa*), redoiser dogwood, silky dogwood (*Cornus amomum*), green ash, red maple, black raspberry (*Rubus occidentalis*), red raspberry (*Rubus idaeus*), multiflora rose and various species of willow (*Salix* sp).



Palustrine Emergent Wetlands (PEM)

PEM wetlands are non-tidal wetlands characterized by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. PEM wetlands usually are dominated by perennial plants (Cowardin et. al., 1979). These wetlands are commonly referred to by a host of terms, including marsh, wet meadow, fen, and vernal pool. Marshes represent emergent wetlands that are flooded for all or most of the year. Fens are seasonally flooded and saturated emergent wetlands. In the southern region of the U.S. these wetlands may be called sedge meadows where sedges predominate or wet meadows where grasses and other species abound. Virtually treeless grasslands called savannahs are present in the Atlantic and Gulf Coastal Plain Region (Tiner, 1999).

In the Project area, emergent wetlands were the most common wetland designation, often occurring in conjunction with other wetland types (PSS, PFO) and also along open water or streams/rivers. Many emergent wetlands throughout the Project occur within agricultural fields (both active and fallow) and therefore have altered hydrology. Emergent wetlands were also located within existing utility corridors throughout the Project area. This specific wetland type has a variety of species that occupy it, and the following list of species are the most common species observed in PEM wetlands throughout Ohio and Michigan: jewel weed, deer tongue grass (*Dichanthelium clandestinum*), tearthumb (*Polygonum sp.*) Joe pye weed (*Eupatorium purpureum*), reed canary grass (*Phalaris arundinacae*), rice cut grass (*Leersia oryzoides*), common rush (*Juncus effusus*), fowl mannagrass, woolgrass (*Scirpus cyperinus*), Canada goldenrod (*Solidago canadensis*), sensitive fern, narrowleaf cattail (*Typha angustifolia*), bluejoint grass (*Calamagrostis canadensis*), gray's sedge (*Carex grayii*), poison ivy (*Toxidendron radicans*), Frank's sedge (*Carex frankii*), green bulrush (*Scirpus atrovirens*) and common reed (*Phragmites australis*).

Palustrine Unconsolidated Bottom Wetland (PUB) Associations

The palustrine unconsolidated bottom cover type includes wetlands with at least 25 percent cover of particles smaller than stones, and a vegetative cover less than 30 percent (Cowardin et al., 1979). A small number of PUBs were identified along the route and include small, shallow depression areas which are seasonally to permanently flooded. These PUB areas are generally anthropogenic in origin and are the result of mining activity, railroad or road construction excavations, and agricultural activities. PUB areas are dominated by mineral soils with a small percentage of the soil surface covered by vegetation. Generally the edges of the PUB components are vegetated with either emergent or shrub species.

Forested/Scrub-Shrub/Emergent Wetlands

Some wetlands are best characterized as having co-dominance between vegetation types, such as a mixed forest and scrub-shrub communities. On NWI maps, these can appear as PFO/PSS, PFO/PEM, and PSS/PEM and may occur as adjacent communities within a single wetland, or a single co-dominant community. Communities with mixed dominance are composed of vegetation similar to that described above for separate forested, emergent, and scrub-shrub wetlands.

2.4.2 Wetlands Crossed by the Project Facilities

NEXUS has identified a total of 456 wetlands located along the Project route. As described in Section 2.4.1 above, sixty-two percent of the Project was surveyed in the field for the presence of wetland as incorporated as part of this Draft Resource Report 2 and the remaining thirty-eight percent was surveyed using desktop analysis. Field surveys are currently ongoing and NEXUS will provide revised wetland crossing information in the updated Resource Report 2 to be filed when NEXUS files its NGA 7(c) Certificate Application with the Commission in November 2015.

NEXUS has designed the Project route to avoid and minimize effects on wetlands to the extent practicable and there are no permanent wetland impacts associated with construction or operation of the proposed facilities. In additional, NEXUS is proposing eleven HDD crossings that will avoid eight wetland crossings



totaling in 0.71 acres of temporary wetland impacts and 0.12 acres of forested wetland conversion avoidance.

NEXUS proposes to implement its E&SCP and SPCC Plan to minimize effects on wetlands, and proposes mitigation where temporary effects are unavoidable, as described in Section 2.4.4. A summary of temporary effects on wetlands is included in Table 2.4-2.

Pipeline Facilities

The 456 wetland crossings along the pipeline will result in a total of 106.2 acres of temporary impact to wetland, which includes 53.73 acres of temporary impact to PEM, PSS, and PUB wetland types and 52.47 acres of PFO wetland types. Since hydrologic conditions during operation of the pipeline will be returned to pre-construction conditions, there will be no permanent loss of wetlands. There will, however, be a permanent conversion of 34.06 acres of forested wetlands into emergent or scrub-shrub wetlands as a result of vegetation maintenance of the permanent maintained ROW.

Temporary and Permanent Access Roads

NEXUS Project will use existing roads or existing open land as TARs and PARs to the extent practicable, but it is the intention of NEXUS to avoid any access road wetland crossings. Wetland and waterbody field surveys have not been completed along access roads at this time but these surveys will be completed in the summer 2015 where landowner access is available. NEXUS will provide the FERC any proposed access road wetland crossings in the updated Resource Report 2 to be filed when NEXUS files its NGA 7(c) Certificate Application with the Commission in November 2015. Proposed access roads are shown on USGS Quadrangle mapping and Project alignment sheets located in Appendix 1A – Volume II-B of Draft Resource Report 1.

Aboveground Facilities

Field surveys have been completed at the four compressor station sites. Wetlands and waterbodies have been identified at three of the compressor sites (Hanoverton, Wadsworth, and Waterville sites) but these stations and associated temporary workspace have been designed to avoid impacts to these resources. The Clyde Compressor Station has no wetlands on site. Wetland and waterbodies field surveys have not been completed within the M&R Stations at this time but are underway and it is the intention of NEXUS to avoid any wetland and waterbody impacts. NEXUS will provide the FERC wetland and waterbody crossing details associated with aboveground facilities in the updated Resource Report 2 to be filed when NEXUS files its NGA 7(c) Certificate Application with the Commission in November 2015.

Pipe and Contractor Ware Yards

The NEXUS Project has identified seven potential pipe and contractor ware yards along the Project. Wetland and waterbody surveys are currently underway, but it is the intention of NEXUS to avoid any waterbody impacts for the use of pipe and contractor yards use. NEXUS will provide the FERC any proposed wetland and waterbody impacts associated with ware yards in the updated Resource Report 2 to be filed when NEXUS files its NGA 7(c) Certificate Application with the Commission in November 2015. Proposed pipe yards and contractor ware yards are shown on USGS Quadrangle mapping located in Appendix 1A.

2.4.3 Wetland Construction Methods

NEXUS will protect and minimize potential adverse impacts on wetlands using construction procedures specified within its Project E&SCP (Appendix 1B1 of Draft Resource Report 1).

For wetlands that have firm substrates, are unsaturated and will not be frozen during the time of construction, the top 12 inches of wetland soil over the trenchline will be segregated and stockpiled separate from subsoil. Wetland vegetation will be cut to ground level. Stump removal and grading will be limited to



the area over the trench except where safety conditions dictate additional site preparation on the working side of the ROW. Trench spoils will be temporarily piled in a ridge along the pipeline trench. Gaps in the spoil pile(s) will be left at appropriate intervals to provide for natural circulation or drainage of water.

Temporary trench plugs will be installed in the trench at the edges of the wetland if the possibility exists for sediment-laden water to flow from uplands down the trench and into the wetland. Silt fences and/or straw bales will be installed at the edges of the construction work area if the possibility exists for spoil to flow into undisturbed areas of the wetland. Original topographic conditions and contours will be restored as close to pre-construction conditions as possible after completion of construction. See Section 1.7 of Draft Resource Report 1 for more construction-related information. If dry conditions exist pipe fabrication will occur in wetlands.

Construction methods will minimize the extent and time that construction equipment operates in wetland areas. When wetlands are not saturated at the time of construction, NEXUS requests a variance from the wetland construction procedures in the FERC Procedures (Section VI.B.2.d): Do not trench the wetland until the pipeline is assembled and ready for lowering in. This will allow conventional cross-country construction practices and eliminate the need for additional workspace and added construction time to complete additional tie-in welds, thus ultimately reducing the construction duration and allowing for earlier restoration and revegetation in wetlands and adjacent upland areas.

Should unusually wet weather result in wetland soils that are inundated or saturated to the surface, the pipeline trench will be excavated across the wetland by equipment supported on wooden swamp mats to minimize the disturbance to wetland soils, it may not be possible to stockpile segregated topsoil. In these situations the pipe strings will be fabricated on one bank and either pulled across the excavated trench in the wetland, floated across the wetland, or carried into place and submerged into the trench. This method will minimize the amount of equipment and travel in wetland areas.

2.4.3.1 Construction Workspace Greater than 75 feet within Wetlands

Generally, the typical wetland crossing workspace is reduced from 100 to 75 feet in width for wetland crossing. In some cases, due to constructability issue a 75 foot wetland crossing width cannot be achieved and NEXUS will request deviations from the FERC's Procedures. Table 2.4-3 identifies the locations where deviations from the FERC Procedures requiring a 75 foot construction width in wetlands are required along the Project pipeline facilities.

2.4.3.2 Additional Temporary Workspace

In general, ATWS is typically required on both sides of a wetland crossing to store materials and trench spoil. These work areas will be located at least 50 feet away from the wetland edge, topographic and other site specific conditions permitting and except where the adjacent upland consists of cultivated or rotated cropland or other disturbed land. If conditions do not permit a 50-foot setback where required, NEXUS will request deviations from the FERC's Procedures. Table 2.4-4 identifies the locations where the ATWS wetland setbacks are less than 50 feet from the wetland boundary and site-specific justifications for that workspace. For the ATWS areas located less than 50 feet from the wetland boundary which are not located in adjacent cultivated or rotated cropland or other disturbed land, NEXUS will request a Variance from the FERC Procedures in the updated Resource Report 2 to be filed when NEXUS files its NGA 7(c) Certificate Application with the Commission in November 2015.

2.4.4 Wetland Effects and Mitigation

2.4.4.1 Construction Effects

The construction of the NEXUS pipeline will result in a total of 106.2 acres of temporary wetland impacts, which includes 53.73 acres of temporary effect on PEM, PSS and PUB wetlands and 52.47 acres of temporary effect on PFO wetlands. Approximately 34.06 acres of previously forested wetlands will be



permanently converted from forested wetlands into emergent and/or scrub-shrub wetlands as a result of vegetation maintenance of the permanent maintained ROW. The remaining forested wetland will be allowed to revert to a forested state following construction and restoration of the ROW. As described above, approximately 38 percent of the Project area wetland data is approximated using photo interpretation methods. It should be noted that NEXUS used a conservative approach for approximating wetland areas. NEXUS expects a reduction in the total number of wetlands and wetland acres impacted once wetland delineations have been completed along the entire Project.

There are no wetlands impacted by the NEXUS Project compressor stations. At this time, surveys are ongoing at proposed M&R Stations, pipe and contractor wareyards, and temporary and permanent access roads. NEXUS does not anticipate any wetland impacts associated with aboveground facilities and will provide the FERC any proposed wetland and waterbody crossings at these locations in the updated Resource Report 2 to be filed when NEXUS files its NGA 7(c) Certificate Application with the Commission in November 2015. The total Project wetland impacts are summarized in Table 2.4-2. Table 2.4-1 indicates each wetland crossed by the NEXUS Project pipeline facilities.

2.4.4.2 Minimization of Effects

NEXUS will protect and minimize potential adverse effects on wetlands by complying with the applicable permit conditions issued by appropriate federal and state regulatory agencies with respect to construction and operation of the Project facilities within wetlands, and through implementation of the wetland construction procedures described in the Project E&SCP for this Project (Appendix 1B1 of Draft Resource Report 1). These wetland construction procedures are summarized below:

Expediting Construction In and Around Wetlands

Expediting construction in and around wetlands will reduce the amount of time wetland soils are exposed, minimizing the opportunity for soil loss and reducing the amount of time during which wetland functions and values are affected.

Minimizing Vegetation Clearing within Wetlands

NEXUS has reduced workspace in and around wetlands during construction in accordance with the Commission's requirements. With the exception of areas identified in Table 2.4-3, workspace within wetlands will be reduced to a width of 75 feet. Table 2.4-3 provides a list by MP of any areas where greater than 75 feet of construction workspace will be needed in wetlands and provides site-specific justification for these proposed modifications from the FERC Procedures. In forested wetlands, NEXUS will minimize tree clearing to the extent practicable while maintaining safe construction conditions.

During operation of the Project, wetlands within the ROW will be maintained in accordance with the FERC Procedures.

Use of Equipment Mats

Equipment mats will be used to cross most wetlands to minimize the potential for rutting. Soil decompaction would be performed if necessary following removal of mats.

Segregation of Topsoil

Effects on wetlands will be minimized by segregating up to the top 12 inches of soil from the non-saturated wetland area disturbed by trenching activities. The topsoil will be restored to its original location immediately after backfilling is complete to preserve the existing seedbank and promote the revegetation of the disturbed area.



Installation of Erosion Controls

Erosion controls, including but not limited to silt fence and/or staked BMPs, will be put in place to protect wetlands from sediment from disturbed areas in adjacent uplands during construction. The Project E&SCP provided in Appendix 1B1 of Draft Resource Report 1, describes the erosion and sediment controls that will be utilized to minimize wetland impacts.

Stabilization and Restoration of Wetlands

Restoring wetlands to their original configurations and contours, post-construction, will assist in maintaining preconstruction hydrology, minimizing impacts on wetlands. Prompt stabilization of disturbed upland areas adjacent to wetlands will minimize sediment transport into wetlands, protecting wetlands from filling with sediment and maintaining functions and values long-term. Wetlands will be seeded with annual rye to provide soil stabilization while allowing the natural seedbank to revegetate the wetland area. After construction, disturbed wetlands and adjacent uplands will be monitored to ensure long-term stabilization. Regular inspection and maintenance of erosion control measures will expedite successful restoration of the wetland.

Invasive Species Monitoring and Control

NEXUS will conduct post-construction maintenance and monitoring of the ROW in affected wetlands to assess the success of restoration and revegetation. Monitoring efforts will include documenting occurrences of exotic invasive species in wetlands to compare to pre-construction conditions. Monitoring will continue for a minimum of three years after construction. If after three years of monitoring the densities of invasive species are documented as being below or consistent with off ROW densities, then NEXUS will cease monitoring activities upon approval from the appropriate regulatory agencies (<u>i.e.</u>, USACE, MDEQ, and OEPA). The use of herbicides or pesticides for targeted invasive species control may be implemented if necessary and only in accordance with approval from the applicable regulatory agency. Without such direct approval, herbicides and pesticides will not be used within 100 feet of wetlands or waterbodies. Refer to Draft Resource Report 3 for more information regarding invasive species.

2.4.4.3 Mitigation of Effects

To minimize effects on wetlands, NEXUS will implement the construction procedures described in the Project E&SCP (Appendix 1B of Draft Resource Report 1). In wetlands, vegetation maintenance over the full width of the permanent ROW is prohibited pursuant to the FERC Procedures. During operation of the Project, to facilitate periodic pipeline corrosion/leak surveys, ten feet of the permanent ROW, centered over the pipeline, will be maintained within wetlands at an early successional stage in accordance with Commission requirements. In forested wetlands, NEXUS will minimize tree clearing to the maximum extent practicable while maintaining safe construction conditions. Tree clearing within wetlands will be limited to selectively clearing trees within 15 feet of the pipeline with roots that could compromise the integrity of the pipeline coating. Trees and shrubs that become reestablished beyond 15 feet on either side of the pipeline will not be disturbed.

Within wetlands, the construction corridor will be reduced to a width of 75 feet or less. Access within the ROW across wetlands will only be permitted where the soils are non-saturated and able to support construction equipment at the time of crossing or with the use of equipment mats to avoid rutting of the wetland soil. Effects on wetlands will be minimized by segregating the top 12 inches of soil from the area disturbed by trenching activities, except in areas where standing water is present or soils are saturated. The topsoil will be restored to its original location immediately after backfilling is complete, to preserve the existing seedbank and promote revegetation of the affected area. Seed mixes spread on the restored topsoil for temporary stabilization will include annual rye grass at a rate of 40 pounds per acre (unless standing water is present) or appropriate mixes recommended by the local conservation districts. The use of fertilizers will not be permitted. Erosion controls including silt fence and/or staked BMPs will also be put



in place to protect wetland from sediment disturbed in adjacent uplands during construction. Post-construction, the disturbed area will be monitored to ensure long-term stabilization of the site. The Project E&SCP (Appendix 1B of Draft Resource Report 1) provides additional details on construction practices within wetlands.

NEXUS will protect and minimize potential adverse effects on wetlands by expediting construction in and around wetlands, by restoring wetlands to their original configurations and contours, by segregating topsoil during excavation where applicable, by permanently stabilizing upland areas near wetlands as soon as possible after backfilling, by inspecting the ROW periodically during and after construction and by repairing any erosion control or restoration features until permanent revegetation is successful. NEXUS will comply with the applicable permit conditions issued by federal, state, and local permitting agencies.

In compliance with federal and state regulatory permitting framework relative to wetland protection, NEXUS will develop a Project-specific wetland mitigation plan that will include the purchase of mitigation credits from established wetland banks and the Ohio in-lieu fee program prior to construction. The mitigation plan will provide measures to avoid, minimize, and compensate for temporary and permanent impacts. NEXUS will consult with the applicable federal and state regulatory agencies for guidance during development of the proposed mitigation measures and plans. As additional mitigation measures are developed and submitted as part of the federal and state permit applications, supplemental information will be provided to the Commission.

2.5 References

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TABLES



TABLE 2.2-1

Aquifers Crossed by the NEXUS Project

State and Facility	From Milepost	To Milepost	Crossing Length (mi) a/	Thickness (feet) b/	Yield (gpm) c/	Average Water Depths (Feet) d/	Aquifer Name	Aquifer Type
Ohio								
<u>Mainline</u>	0.00	1.72	1.72	> 100	0 to 5	95	Pennsylvanian	Sandstone
	1.72	2.21	0.49	~ 100	0 to 5	95	Pennsylvanian	Sandstone
	2.21	4.62	2.41	> 100	0 to 5	95	Pennsylvanian	Sandstone
	4.62	4.72	0.10	~ 100	0 to 5	95	Pennsylvanian	Sandstone
	4.72	4.93	0.21	25 - 100	< 5	<95	Sandy Creek Buried Valley	Sand and Gravel
	4.93	9.64	4.71	~ 100	0 to 5	95	Pennsylvanian	Sandstone
	9.64	10.69	1.06	> 100	5 to 25	<95	Mahoning Buried Valley	Sand and Gravel
	10.69	10.83	0.14	> 100	5 to 25	<95	Sandy Creek Buried Valley	Sand and Gravel
	10.83	11.22	0.38	> 100	5 to 25	<95	Sandy Creek Buried Valley	Sand and Gravel
	11.22	11.94	0.73	~ 100	0 to 5	95	Pennsylvanian	Sandstone
	11.94	15.24	3.29	~ 100	5 to 25	95	Pennsylvanian	Sandstone
	12.22	12.81	0.60	< 100	0 to 5	95	Pennsylvanian	Sandstone
	15.24	16.83	1.59	> 100	5 to 25	<95	Mahoning Buried Valley	Sand and Gravel
	16.83	17.50	0.67	~ 100	5 to 25	95	Pennsylvanian	Sandstone
	17.50	20.32	2.82	> 100	5 to 25	<95	Mahoning Buried Valley	Sand and Gravel
	20.32	23.43	3.11	> 100	5 to 25	95	Pennsylvanian	Sandstone
	20.32	25.90	5.58	~ 100	5 to 25	95	Pennsylvanian	Sandstone
	25.90	26.25	0.36	> 100	25 to 100	<95	Sandy Creek Buried Valley	Sand and Gravel
	26.25	27.25	0.99	> 100	25 to 100	<95	Kent-Hartville Buried Valley	Sand and Gravel
	27.25	28.15	0.90	> 100	25 to 100	95	Pennsylvanian	Sandstone
	27.41	27.86	0.45	< 100	5 to 25	95	Pennsylvanian	Sandstone
	28.15	29.16	1.00	> 100	25 to 100	<95	Kent-Hartville Buried Valley	Sand and Gravel



TABLE 2.2-1

Aquifers Crossed by the NEXUS Project

	From	То	Crossing Length	Thickness	Yield	Average Water Depths		Aquifer
State and Facility	Milepost	Milepost	(mi) a/	(feet) b/	(gpm) c/	(Feet) d/	Aquifer Name	Type
	29.16	29.86	0.71	~ 100	5 to 100	95	Pennsylvanian	Sandstone
	29.86	30.09	0.19	25 - 100	5 to 25	<95	Kent-Hartville Buried Valley	Sand and Gravel
	30.09	30.41	0.33	> 100	25 to 100	95	Pennsylvanian	Sandstone
	30.41	31.46	1.05	25 - 100	25 to 100	<95	Kent-Hartville Buried Valley	Sand and Gravel
	31.46	32.36	0.90	25 - 100	25 to 100	<95	Kent-Hartville Outwash/Kame Portage Lakes Buried	Sand and Gravel Sand and
	32.36	33.06	0.70	> 100	25 to 100	<95	Valley	Gravel
	33.06	33.39	0.33	~ 100	5 to 100	95	Pennsylvanian	Sandstone
	33.39	33.66	0.27	25 - 100	25 to 100	<95	Portage Lakes Outwash/Kame	Sand and Gravel
	33.66	35.08	1.42	~ 100	5 to 100	95	Pennsylvanian	Sandstone
	35.08	35.89	0.81	25 - 100	25 to 100	<95	Portage Lakes Outwash/Kame	Sand and Gravel
	35.89	39.17	3.28	> 100	25 to 100	<95	Portage Lakes Buried Valley	Sand and Gravel
	39.17	39.98	0.82	> 100	5 to 25	<95	Portage Lakes Buried Valley	Sand and Gravel
	39.98	40.32	0.34	> 100	25 to 100	95	Pennsylvanian	Sandstone
	40.32	40.48	0.16	> 100	25 to 100	<95	Tuscarawas Buried Valley	Sand and Gravel
	40.48	41.87	1.38	> 100	25 to 100	95	Pennsylvanian	Sandstone
	41.87	42.23	0.37	> 100	25 to 100	<95	Tuscarawas Buried Valley	Sand and Gravel
	42.23	43.07	0.84	> 100	25 to 100	95	Pennsylvanian	Sandstone
	43.07	43.17	0.10	< 100	5 to 25	95	Pennsylvanian	Sandstone
	43.17	43.47	0.31	> 100	25 to 100	<95	Tuscarawas Buried Valley	Sand and Gravel
	43.47	43.64	0.17	< 100	5 to 25	95	Pennsylvanian	Sandstone
	43.64	43.66	0.02	> 100	25 to 100	95	Pennsylvanian	Sandstone
	43.66	43.76	0.10	< 100	5 to 25	95	Pennsylvanian	Sandstone
	43.76	44.64	0.88	> 100	25 to 100	95	Pennsylvanian	Sandstone



TABLE 2.2-1

Aquifers Crossed by the NEXUS Project

State and Facility	From	То	Crossing Length	Thickness	Yield	Average Water Depths	Aguifer Name	Aquifer
State and Facility	Milepost	Milepost	(mi) a/	(feet) b/	(gpm) c/	(Feet) d/	Aquirer Name	Type
	44.64	44.71	0.07	< 100	5 to 25	95	Pennsylvanian	Sandstone
	44.71	45.71	1.00	> 100	25 to 100	95	Pennsylvanian	Sandstone
	45.71	45.78	0.07	< 100	5 to 25	95	Pennsylvanian	Sandstone
	45.78	46.10	0.32	> 100	25 to 100	<95	Tuscarawas Buried Valley	Sand and Gravel
	46.10	47.07	0.97	> 100	5 to 25	<95	Tuscarawas Buried Valley	Sand and Gravel
	47.07	47.34	0.27	< 100	5 to 25	95	Pennsylvanian	Sandstone
	47.34	48.93	1.58	> 100	25 to 100	95	Pennsylvanian	Sandstone
	48.93	48.93	0.01	< 100	5 to 25	95	Pennsylvanian	Sandstone
	48.93	50.22	1.28	> 100	5 to 25	<95	Chippewa Buried Valley	Sand and Gravel
	50.22	50.29	0.07	< 100	5 to 25	95	Pennsylvanian	Sandstone
	50.29	51.85	1.56	> 100	25 to 100	95	Pennsylvanian	Sandstone
	51.85	52.59	0.74	< 100	5 to 25	95	Pennsylvanian	Sandstone
	52.59	53.06	0.46	> 100	5 to 25	95	Mississippian	Sandstone
	53.06	53.35	0.29	> 100	25 to 100	95	Mississippian	Sandstone
	53.35	54.14	0.80	< 100	5 to 25	95	Pennsylvanian	Sandstone
	54.14	54.70	0.56	> 100	25 to 100	95	Mississippian	Sandstone
	54.70	55.69	0.99	> 100	100 to 500	<95	Chippewa Buried Valley	Sand and Gravel
	55.69	56.40	0.71	> 100	25 to 100	95	Mississippian	Sandstone
	56.40	56.77	0.36	< 100	5 to 25	95	Pennsylvanian	Sandstone
	56.77	57.05	0.28	> 100	25 to 100	95	Mississippian	Sandston
	57.05	57.47	0.42	< 100	5 to 25	95	Pennsylvanian	Sandston
	57.47	57.71	0.24	> 100	25 to 100	95	Mississippian	Sandstone
	57.71	58.01	0.30	> 100	5 to 25	<95	Chippewa Buried Valley	Sand and Gravel
	58.01	58.73	0.72	> 100	25 to 100	95	Mississippian	Sandstone



TABLE 2.2-1

Aquifers Crossed by the NEXUS Project

State and Facility	From Milepost	To Milepost	Crossing Length (mi) a/	Thickness (feet) b/	Yield (gpm) c/	Average Water Depths (Feet) d/	Aquifer Name	Aquifer Type
	58.73	61.52	2.80	< 100	5 to 25	95	Pennsylvanian	Sandston
	61.52	61.78	0.26	> 100	25 to 100	95	Mississippian	Sandston
	61.78	62.00	0.22	> 100	5 to 25	<95	Chippewa Buried Valley	Sand and Gravel
	62.00	62.17	0.16	> 100	25 to 100	95	Mississippian	Sandston
	62.17	62.60	0.43	> 100	5 to 25	<95	Chippewa Buried Valley	Sand and Gravel
	62.60	64.19	1.60	> 100	25 to 100	95	Mississippian	Sandston
	64.19	65.08	0.88	> 100	5 to 25	<95	Chippewa Buried Valley	Sand and Gravel
	65.08	67.50	2.42	> 100	25 to 100	95	Mississippian	Sandstor
	67.50	67.88	0.38	> 100	25 to 100	<95	Chippewa Buried Valley	Sand an Gravel
	67.88	68.63	0.75	> 100	5 to 25	<95	Chippewa Buried Valley	Sand ar Grave
	68.63	70.39	1.76	> 100	25 to 100	95	Mississippian	Sandstor
	70.39	77.36	6.97	> 100	5 to 25	95	Mississippian	Sandstor
	77.36	80.46	3.10	> 100	0 to 5	95	Mississippian	Sandsto
	80.46	86.41	5.95	< 100	0 to 5	95	Mississippian	Sandsto
	86.41	87.24	0.82	> 100	0 to 5	95	Mississippian	Sandsto
	87.24	88.17	0.93	< 100	0 to 5	95	Mississippian	Sandsto
	88.17	88.67	0.50	> 100	0 to 5	95	Mississippian	Sandsto
	88.67	88.68	0.01	< 100	0 to 5	95	Mississippian	Sandstor
	88.68	88.86	0.18	> 100	0 to 5	95	Mississippian	Sandsto
	88.86	89.03	0.18	25 - 100	5 to 25	<95	Black River Buried Valley	Sand ar Grave
	89.03	89.29	0.26	> 100	5 to 25	<95	Black River Buried Valley	Sand ar Grave
	89.29	90.97	1.68	< 100	0 to 5	95	Mississippian	Sandsto
	90.97	91.23	0.26	< 100	5 to 25	95	Mississippian	Sandsto
	91.23	91.85	0.62	> 100	0 to 5	95	Mississippian	Sandstor



TABLE 2.2-1

Aquifers Crossed by the NEXUS Project

			Aquiloi					
State and Facility	From Milepost	To Milepost	Crossing Length (mi) a/	Thickness (feet) b/	Yield (gpm) c/	Average Water Depths (Feet) d/	Aquifer Name	Aquifer Type
	91.85	92.68	0.83	< 100	0 to 5	95	Mississippian	Sandstone
	92.68	93.08	0.39	> 100	0 to 5	95	Mississippian	Sandstone
	93.08	96.25	3.17	< 100	5 to 25	95	Mississippian	Sandstone
	96.25	96.40	0.15	< 100	0 to 5	95	Mississippian	Sandstone
	96.40	96.63	0.23	> 100	0 to 5	95	Devonian	Carbonate
	96.63	97.49	0.86	< 100	0 to 5	95	Mississippian	Sandstone
	97.49	98.21	0.72	> 100	0 to 5	95	Devonian	Carbonate
	98.21	99.02	0.82	< 100	0 to 5	95	Mississippian	Sandstone
	99.02	100.15	1.12	< 100	5 to 25	95	Mississippian	Sandstone
	100.15	100.59	0.44	< 100	0 to 5	95	Mississippian	Sandstone
	100.59	101.12	0.53	< 100	5 to 25	95	Mississippian	Sandstone
	101.12	101.82	0.71	> 100	0 to 5	95	Mississippian	Sandstone
	101.82	101.97	0.15	< 100	0 to 5	95	Mississippian	Sandstone
	101.97	102.03	0.06	< 100	5 to 25	95	Mississippian	Sandstone
	102.03	102.36	0.33	< 100	0 to 5	95	Mississippian	Sandstone
	102.36	103.33	0.97	> 100	0 to 5	95	Mississippian	Sandstone
	103.33	103.92	0.59	< 100	0 to 5	95	Mississippian	Sandstone
	103.92	104.57	0.65	< 100	5 to 25	95	Mississippian	Sandstone
	104.57	105.79	1.22	< 100	0 to 5	95	Mississippian	Sandstone
	105.79	106.89	0.90	< 100	0 to 5	95	Mississippian	Sandstone
	106.89	107.97	1.08	< 100	5 to 25	95	Mississippian	Sandstone
	107.97	108.10	0.13	< 100	0 to 5	95	Mississippian	Sandstone
	108.10	110.15	2.05	> 100	0 to 5	95	Devonian	Carbonate
	110.15	110.47	0.33	25 - 100	5 to 25	<95	Norwalk Buried Valley	Sand and Gravel
	110.47	112.24	1.77	> 100	25 to 100	<95	Norwalk Buried Valley	Sand and Gravel



TABLE 2.2-1

Aquifers Crossed by the NEXUS Project

			1					
State and Facility	From Milepost	To Milepost	Crossing Length (mi) a/	Thickness (feet) b/	Yield (gpm) c/	Average Water Depths (Feet) d/	Aquifer Name	Aquifer Type
	112.24	112.69	0.45	25 - 100	5 to 25	<95	Norwalk Buried Valley	Sand and Gravel
	112.69	119.99	7.31	> 100	0 to 5	95	Devonian	Carbonate
	119.99	121.83	1.84	~ 100	0 to 100	95	Devonian	Carbonate
	121.83	122.18	0.35	> 100	25 to 100	95	Devonian	Carbonate
	122.18	137.07	14.89	~ 100	0 to 100	95	Silurian	Carbonate
	137.07	137.16	0.09	> 100	5 to 25	<95	Green Creek Buried Valley	Sand and Gravel
	137.16	137.34	0.18	> 100	5 to 25	<95	Green Creek Buried Valley	Sand and Gravel
	137.34	138.55	1.21	> 100	5 to 25	<95	Green Creek Buried Valley	Sand and Gravel
	138.55	156.91	18.36	~ 100	0 to 100	95	Silurian	Carbonate
	156.91	171.23	14.32	~ 100	0 to 100	95	Silurian	Carbonate
	171.23	181.29	10.06	~ 100	0 to 100	95	Silurian	Carbonate
	181.29	181.48	0.19	25 - 100	5 to 25	<95	Oak Openings Beech Ridge	Sand and Gravel
	181.48	190.98	9.50	25 - 100	25 to 100	<95	Oak Openings Beech Ridge	Sand and Gravel
	190.98	193.18	2.20	~ 100	0 to 25	95	Devonian	Carbonate
	193.18	197.76	4.57	> 100	0 to 5	95	Devonian	Carbonate
	197.76	202.81	5.06	< 100	0 to 5	95	Mississippian	Sandstone
Michigan								
<u>Mainline</u>	202.81	225.97	23.16	N/A	N/A	N/A	Confining Unit	N/A
	225.97	234.89	8.92	< 25	< 5	95	Silurian-Devonian	Carbonate
	234.89	237.85	2.96	N/A	N/A	N/A	Confining Unit	N/A
	237.85	245.49	7.64	< 25	< 5	95	Silurian-Devonian	Carbonate
	245.49	249.00	4.51	N/A	N/A	N/A	Confining Unit	N/A
Ohio								
TGP Interconnecting Pipeline	0.00	0.89	0.89	> 100	0 to 5	95	Pennsylvanian	Sandstone



			Aquife	TABLE 2.	- •	ect		
State and Facility	From Milepost	To Milepost	Crossing Length (mi) a/	Thickness (feet) b/	Yield (gpm) c/	Average Water Depths (Feet) d/	Aquifer Name	Aquifer Type
	d Carbonate aq I Carbonate aq	uifers GIS laye uifers GIS laye	ers provided by ODNR of ers provided by ODNR of	•	•	s was averaged and indicated a re grouped into broader range (



Wells Loca	ted within 150 Fee	Table 2.2-2 et and Wellhead Protection	n Areas Crossed by	the NEXUS Project	
State, Facility, and MP	County	Approximate Distance from Construction Workspace (feet) a/	Workspace Crossing Wellhead Protected Area (Yes/No)	Workspace Crossing Length on Wellhead (feet)	Туре
Ohio					
<u>Mainline</u>					
2.2	Columbiana	25	No	N/A	Private
3.4	Columbiana	85	No	N/A	Private
3.4	Columbiana	142	No	N/A	Private
4.4	Columbiana	65	No	N/A	Private
4.7	Columbiana	43	No	N/A	Private
4.9	Columbiana	147	No	N/A	Private
6.1	Columbiana	42	No	N/A	Private
6.2	Columbiana	6	No	N/A	Private
6.2	Columbiana	8	No	N/A	Privat
6.2	Columbiana	11	No	N/A	Privat
6.3	Columbiana	103	No	N/A	Privat
6.6	Columbiana	30	No	N/A	Privat
6.8	Columbiana	65	No	N/A	Privat
11.2	Columbiana	20	No	N/A	Privat
11.6	Columbiana	42	No	N/A	Privat
14.5	Stark	79	No	N/A	Privat
22.5	Stark	53	No	N/A	Privat
22.9	Stark	23	No	N/A	Privat
26.0	Stark	33	No	N/A	Privat
26.8	Stark	22	No	N/A	Privat
27.2	Stark	104	No	N/A	Privat
30.0	Stark	21	No	N/A	Privat
39.0	Summit	121	No	N/A	Privat
39.2	Summit	17	No	N/A	Privat
45.9	Summit	142	No	N/A	Privat
50.3	Wayne	>150	Yes	318	Publi
50.4	Wayne	>150	Yes	318	Privat
56.6	Medina	109	No	N/A	Privat
59.4	Medina	48	No	N/A	Privat
59.5	Medina	9	No	N/A	Privat
59.6	Medina	8	No	N/A	Privat
66.1	Medina	>150	Yes	845	Publi
66.1	Medina	>150	Yes	845	Public
66.2	Medina	>150	Yes	845	Public



Table 2.2-2
Wells Located within 150 Feet and Wellhead Protection Areas Crossed by the NEXUS Project

	County	Approximate Distance from Construction Workspace (feet) a/	Crossing Wellhead Protected Area (Yes/No)	Workspace Crossing Length on Wellhead (feet)	Туре
63.4	Medina	125	No	N/A	Private
89.2	Lorain	36	No	N/A	Private
116.3	Erie	0	No	N/A	Private
129.7	Sandusky	0	No	N/A	Private
Michigan					
<u>Mainline</u>					
221.9	Lenawee	0	No	N/A	Private
222.5	Lenawee	28	No	N/A	Private
225.6	Monroe	107	No	N/A	Private
226.8	Monroe	120	No	N/A	Private
227.4	Monroe	68	No	N/A	Private
229	Monroe	89	No	N/A	Private
229.1	Monroe	49	No	N/A	Private
230.6	Monroe	150	No	N/A	Private
231.9	Washtenaw	117	Yes	1225	Private
236	Washtenaw	115	No	N/A	Private
239.4	Washtenaw	57	No	N/A	Private
239.4	Washtenaw	0	No	N/A	Private
239.5	Washtenaw	0	No	N/A	Private
241.6	Washtenaw	135	No	N/A	Private
244.7	Washtenaw	0	No	N/A	Private
244.7	Washtenaw	0	No	N/A	Public
244.7	Washtenaw	28	No	N/A	Public
249	Washtenaw	87	No	N/A	Private
Michigan					
Aboveground Facilities					
MP 249 – NEXUS/ Willow Run M&R Station	Washtenaw	103	No	N/A	Private
Michigan					
Pipe Yards and Contractor V	<u> Vare Yards</u>				
MP 223 - Yard 4-1	Lenawee	0	No	N/A	Private
MP 223 - Yard 4-1	Monroe	88	No	N/A	Private
MP 223 - Yard 4-1	Monroe	83	No	N/A	Private
a/ distance measured from e	— Adde of NEXLIS Dr	niect workspace to water w	دا ا		



				ABLE 2.3-1		
		Wat	ersheds Cros	ssed by the NEXU	S Project	
State, Facility	From MP	То МР	Crossing Length (mi)	HUC 12 Identifier	HUC12 Name	HUC 8 Identifier
Ohio						
<u>Mainline</u>	0	0.34	0.34	050400010406	Brush Creek	5030101
	0.34	4.26	3.92	050400010401	Headwaters Sandy Creek	5040001
	4.26	6.57	2.32	050301030101	Conser Run	5040001
	6.57	8.74	2.16	050400010402	Beaver Run-Mahoning River	5030103
	8.74	13.77	5.04	050301030102	Middle Branch Sandy Creek	5040001
	13.77	14.29	0.52	050301030103	Beech Creek	5030103
	14.29	14.34	0.04	050301030102	Fish Creek-Mahoning River	5030103
	14.34	20.54	6.2	050400010501	Beech Creek	5030103
	20.54	25.83	5.29	050400010504	Swartz Ditch-Middle Branch Nimishillen Creek	5040001
	25.83	25.85	0.02	050400010501	City of Canton-Middle Branch Nimishillen Creek Swartz Ditch-Middle Branch	5040001
	25.85	27.7	1.85	050400010503	Nimishillen Creek	5040001
	27.7	32.27	4.57	050400010101	West Branch Nimishillen Creek	5040001
	32.27	32.34	0.07	050400010503	Headwaters Tuscarawas River	5040001
	32.34	32.73	0.39	050400010101	West Branch Nimishillen Creek	5040001
	32.73	33.82	1.09	050400010503	Headwaters Tuscarawas River	5040001
	33.82	34.02	0.2	050400010101	West Branch Nimishillen Creek	5040001
	34.02	34.58	0.57	050400010302	Headwaters Tuscarawas River	5040001
	34.58	39.31	4.72	050400010303	Nimisila Reservoir-Nimisila Creek	5040001
	39.31	43.77	4.46	050400010301	Lake Lucern-Nimisila Creek	5040001
	43.77	48.64	4.88	050400010207	Pancake Creek-Tuscarawas River	5040001
	48.64	53.96	5.32	050400010204	Silver Creek-Chippewa Creek	5040001
	53.96	57.46	3.5	050400010205	River Styx	5040001
	57.46	59.97	2.51	050400010202	Tommy Run-Chippewa Creek	5040001
	59.97	60.79	0.82	050400010205	Hubbard Creek-Chippewa Creek	5040001
	60.79	61.1	0.31	050400010202	Tommy Run-Chippewa Creek	5040001
	61.1	65.23	4.14	050400010201	Hubbard Creek-Chippewa Creek	5040001
	65.23	69.63	4.4	041100010104	Headwaters Chippewa Creek	5040001
	69.63	74.56	4.93	041100010106	Mallet Creek	4110001
	74.56	76.51	1.95	041100010402	Cossett Creek-West Branch Rocky River Salt Creek-East Branch Black	4110001
	76.51	81.31	4.8	041100010404	River	4110001
	81.31	83.7	2.39	041100010506	Jackson Ditch-East Branch Black River	4110001
	83.7	88.13	4.44	041100010503	Lower West Branch Black River	4110001
	88.13	88.49	0.36	041100010504	Wellington Creek	4110001
	88.49	91.35	2.86	041100010505	Middle West Branch Black River	4110001



TABLE 2.3-1 Watersheds Crossed by the NEXUS Project

		wat	ersneus cros	Sec by the NEXO		Watersheds Crossed by the NEXUS Project											
State, Facility	From MP	То МР	Crossing Length (mi)	HUC 12 Identifier	HUC12 Name	HUC 8 Identifie											
	91.35	93.76	2.41	041100010701	Plum Creek	411000											
	93.76	95.38	1.62	041000120202	Headwaters Beaver Creek	411000											
	95.38	99.66	4.29	041000120203	East Fork Vermilion River	4100012											
	99.66	101.33	1.67	041000120302	Town of Wakeman-Vermilion River	4100012											
	101.33	102.89	1.55	041000120304	Chappel Creek	4100012											
	102.89	104.66	1.78	041000120302	Old Woman Creek	4100012											
	104.66	105.17	0.51	041000120304	Chappel Creek	410001											
	105.17	105.39	0.21	041000120302	Old Woman Creek	410001											
	105.39	106.99	1.6	041000120304	Chappel Creek	4100012											
	106.99	110.88	3.89	041000120606	Old Woman Creek	410001											
	110.88	115.77	4.89	041000110101	Huron River-Frontal Lake Erie	410001											
	115.77	119.57	3.8	041000110102	Sawmill Creek	410001											
	119.57	123.36	3.79	041000110103	Pipe Creek-Frontal Sandusky Bay	410001											
	123.36	126.92	3.56	041000110202	Mills Creek	410001											
	126.92	131.27	4.35	041000110203	Strong Creek	410001											
	131.27	133.88	2.61	041000110204	Pickerel Creek	410001											
	133.88	135.69	1.81	041000110205	Raccoon Creek	410001											
	135.69	136.95	1.27	041000111203	South Creek	410001											
	136.95	137.95	0.99	041000111303	Green Creek	410001											
	137.95	142.24	4.29	041000111403	Mouth Sandusky River	410001											
	142.24	142.4	0.16	041000111301	Little Muddy Creek	410001											
	142.4	143.32	0.93	041000111403	Muskellunge Creek	410001											
	143.32	146.19	2.87	041000111404	Little Muddy Creek	410001											
	146.19	146.67	0.48	041000111403	Town of Lindsey-Muddy Creek	410001											
	146.67	146.97	0.3	041000111404	Little Muddy Creek	410001											
	146.97	149.75	2.77	041000100501	Town of Lindsey-Muddy Creek	410001											
	149.75	151.34	1.6	041000100502	Little Portage River	410001											
	151.34	153.1	1.76	041000100401	Portage River	410001											
	153.1	155.2	2.1	041000100402	Sugar Creek	410001											
	155.2	158.42	3.22	041000100601	Larcarpe Creek Outlet #4- Portage River	410001											
	158.42	163.89	5.47	041000100602	Upper Tousant Creek	410001											
	163.89	164.2	0.31	041000100601	Packer Creek	410001											
	164.2	164.25	0.05	041000100602 Upper Tousant Creek		410001											
	164.25	168.53	4.28	041000100703	Packer Creek	410001											
	168.53	171.29	2.76	041000090901	Cedar Creek-Frontal Lake Erie	410001											
	171.29	173.34	2.05	041000090603	Grassy Creek Diversion	410000											



TABLE 2.3-1 Watersheds Crossed by the NEXUS Project

State, Facility	From MP	То МР	Crossing Length (mi)	HUC 12 Identifier	HUC12 Name	HUC 8 Identifie
	173.34	176.89	3.55	041000090804	Haskins Road Ditch-Maumee River	4100009
	176.89	177.81	0.92	041000090802	Heilman Ditch-Swan Creek	410000
	177.81	181.81	4	041000090801	Lower Blue Creek	410000
	181.81	184.48	2.66	041000090802	Upper Blue Creek	410000
	184.48	184.56	0.08	041000090801	Lower Blue Creek	410000
	184.56	188.31	3.75	041000090702	Upper Blue Creek	410000
	188.31	192.37	4.06	041000090701	Fewless Creek-Swan Creek	410000
	192.37	198.1	5.73	041000010303	Ai Creek	410000
	198.1	200.47	2.37	041000010304	Prairie Ditch	410000
Michigan	200.47	203.93	3.46	041000020307	Headwaters Tenmile Creek	410000
	203.93	213.44	9.51	041000020308	Floodwood Creek-River Raisin	410000
	213.44	214.44	1	041000020309	Camp Drain-River Raisin	410000
	214.44	218.78	4.34	041000020405	Little River Raisin	410000
	218.78	221.32	2.54	041000020408	South Branch Macon Creek	410000
	221.32	223.35	2.03	041000020404	Macon Creek	410000
	223.35	224	0.65	041000020408	Headwaters Macon Creek	410000
	224	226.05	2.06	041000020406	Macon Creek	410000
	226.05	229.09	3.04	041000020407	Bear Swamp Creek	410000
	229.09	231.15	2.06	041000020409	North Branch Macon Creek	410000
	231.15	232.19	1.04	041000010106	Saline River	410000
	232.19	237.01	4.82	041000010105	Sugar Creek-Stony Creek	410000
	237.01	240.84	3.83	041000010107	Paint Creek	410000
	240.84	241.29	0.45	041000010103	Stony Creek	410000
	241.29	242.15	0.86	041000010102	Middle Creek-Swan Creek	410000
	242.15	243.33	1.17	040900050405	North Branch Swan Creek	410000
	243.33	243.72	0.4	040900050404	Griggs Drain-Huron River	409000
	243.72	245.19	1.47	040900050403	Belleville Lake-Huron River	409000
	245.19	245.53	0.34	040900050404	Ford Lake-Huron River	409000
	245.53	246.5	0.98	040900050403	Belleville Lake-Huron River	409000
	246.5	247.59	1.08	040900050404	Ford Lake-Huron River	409000
	247.59	248.19	0.61	040900040302	Belleville Lake-Huron River	409000
	248.19	249.03	0.84	050301010503	Molt Drain-Lower River Rouge	409000
Interconnecting Pipeline to TGP	0	0.89	0.89	050301010503	Brush Creek	503010



				TABLE 2.3-2					
			Waterbodies	Crossed by NEX	US Project				
State, Drainage Basin, County, Waterbody ID	Waterbody Name	Milepost b/	Flow TYPE c/	FERC Classification d/	State Water Quality Classification e/	State Water Supply Classification f/	State Recreation Classification g/	Waterbody Width (feet) h/	Proposed Construction Method i/
Ohio									
Ohio River Basin									
Columbiana Coun	nty								
AS-CO-19-A	Trib to Brush Creek	0.09	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	2	Wet Cut
A14-5-S1	Sandy Creek	1.85	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact A	12	Bore
A14-5-S3	Trib to Sandy Creek	2.08	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	4	N/A
A14-8-S1	Trib to Sandy Creek	3.80	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	9	Wet Cut
A14-10-S1	Conser Run	4.78	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	20	Bore
A14-11-S1	Trib to Conser Run	5.16	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	5	Wet Cut
A14-126-S1	Trib to Conser Run	5.49	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	3	N/A
A14-126-S1	Trib to Conser Run	5.49	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	3	Wet Cut
A14-127-S1	Trib to Conser Run	5.55	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	3	N/A
A14-127-S1	Trib to Conser Run	5.55	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	3	Wet Cut
A14-12-S1	Trib to Conser Run	6.31	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	3	Dry Cut
A14-125-S2	Trib to Mahoning River	6.74	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	4	Dry Cut
A14-190-S1	Trib to Mahoning River	7.52	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	4	Dry Cut
A14-191-S1	Trib to Mahoning River	7.56	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	4	Dry Cut
AS-CO-7	Trib to Manhoning River	7.72	Intermittent	Intermediate	WWH	AWS and IWS	Primary Contact B	35	Dry Cut
AS-CO-9	Trib to Mahoning River	7.89	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	5	Dry Cut
A14-33-S1	Trib to Middle Branch Sandy Creek	8.89	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	4	Wet Cut
A14-33-S2	Trib to Middle Branch Sandy Creek	8.91	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	4	N/A
A14-193-S1	Trib to Middle Branch Sandy Creek	9.17	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	4	Dry Cut
A14-194-S2	Trib to Middle Branch Sandy Creek	9.26	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	5	Wet Cut
A14-196-S1	Trib to Middle Branch Sandy Creek	9.58	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	10	Wet Cut
A14-13-S1	Trib to Middle Branch Sandy Creek	9.90	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	2	Wet Cut
A14-15-S1	Trib to Middle Branch Sandy Creek	10.37	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	4	Dry Cut
AS-CO-11	Middle Branch Sandy Creek	10.75	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	15	Dry Cut
AS-CO-12	Trib to Middle Branch Sandy Creek	11.25	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	5	N/A
AS-CO-12	Trib to Middle Branch Sandy Creek	11.26	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	5	N/A
AS-CO-12A	Trib to Middle Branch Sandy Creek	11.33	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	4	Dry Cut
AS-CO-12A	Trib to Middle Branch Sandy Creek	11.49	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	4	Dry Cut
A14-165-S2	Trib to Woodland Lake	11.94	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	6	Dry Cut



TABLE 2.3-2
Waterbodies Crossed by NEXUS Project

State, Drainage Basin, County, Waterbody ID	Waterbody Name	Milepost b/	Flow TYPE c/	FERC Classification d/	State Water Quality Classification e/	State Water Supply Classification f/	State Recreation Classification g/	Waterbody Width (feet) h/	Proposed Construction Method i/
A14-165-S1	Trib to Woodland Lake	11.95	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	5	Dry Cut
Stark County									
A14-108-S2	Trib to Middle Branch Sandy Creek	12.66	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	2	N/A
A14-108-S1	Trib to Middle Branch Sandy Creek	12.67	Intermittent	MInor	WWH	AWS and IWS	Primary Contact B	10	Dry Cut
A14-108-S3	Trib to Middle Branch Sandy Creek	12.71	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	3	Dry Cut
AS-ST-1	Trib to Middle Branch Sandy Creek	12.82	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	5	N/A
AP-ST-1	Trib to Middle Branch Sandy Creek	12.87	Perennial	Major	WWH	AWS and IWS	Primary Contact B	122	N/A
A14-19-S1	Trib to Middle Branch Sandy Creek	12.91	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	10	Dry Cut
AS-ST-2	Trib to Middle Branch Sandy Creek	13.20	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	5	Dry Cut
AS-ST-7	Beech Creek	16.66	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	13	Dry Cut
AS-ST-7A	Trib to Beech Creek	16.77	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	8	Wet Cut
A14-105-S1	Trib to Beech Creek	17.27	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	3	Bore
A14-103-S1	Trib to Beech Creek	17.68	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	5	Wet Cut
AS-ST-8	Trib to Beech Creek	18.35	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	20	Dry Cut
A14-23-S1	Trib to Beech Creek	18.90	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	8	Dry Cut
A14-172-S3	Trib to Beech Creek	19.53	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	1	Bore
A14-173-S1	Trib to Beech Creek	19.70	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	3	Wet Cut
A14-176-S1	Trib to Beech Creek	20.04	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	8	Dry Cut
A14-176-S1	Trib to Beech Creek	20.09	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	8	Dry Cut
A14-176-S2	Trib to Beech Creek	20.09	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	3	N/A
A14-25-S1	Middle Branch Nimishillen Creek	21.32	Perennial	MInor	WWH	AWS and IWS	Primary Contact B	10	Bore
A14-175-S1	Trib to Middle Branch Nimishillen Creek	22.04	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	6	Dry Cut
A14-174-S1	Trib to Middle Branch Nimishillen Creek	22.28	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	4	Dry Cut
A14-27-S1	Trib to Middle Branch Nimishillen Creek	23.39	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	3	Dry Cut
A14-161-S1	Trib to Middle Branch Nimishillen Creek	23.87	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	28	Dry Cut
A14-161-S2	Trib to Middle Branch Nimishillen Creek	23.89	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	6	Dry Cut
A14-30-S1	Trib to Middle Branch Nimishillen Creek	25.02	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	8	Wet Cut
A14-100-S1	Trib to Middle Branch Nimishillen Creek	25.99	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	3	Wet Cut
A14-99-S1	Middle Branch Nimishillen Creek	26.07	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	20	Wet Cut
A14-99-S2	Trib to Middle Branch Nimishillen Creek	26.09	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	3	Wet Cut
A14-97-S1	Swartz Ditch	26.53	Perennial	Intermediate	MHW	AWS and IWS	Secondary Contact	20	Dry Cut
A14-34-S1	Trib to Swarts Ditch	27.03	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	3	N/A



TABLE 2.3-2
Waterbodies Crossed by NEXUS Project

State, Drainage Basin, County, Waterbody ID	Waterbody Name	Milepost b/	Flow TYPE c/	FERC Classification d/	State Water Quality Classification e/	State Water Supply Classification f/	State Recreation Classification g/	Waterbody Width (feet) h/	Proposed Construction Method i/
AS-ST-13	Trib to Swarts Ditch	27.22	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	10	Dry Cut
A14-168-S1	Trib to Nimishillen Creek	28.18	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	5	Wet Cut
AS-ST-27	Trib to Nimishillen Creek	28.19	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	8	N/A
AS-ST-14	Trib to Nimishillen Creek	28.54	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	4	Dry Cut
AS-ST-15	Trib to Nimishillen Creek	28.59	Intermittent	Intermediate	WWH	AWS and IWS	Primary Contact B	18	Dry Cut
AS-ST-17	Trib to Nimishillen Creek	28.90	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	27	Wet Cut
A14-157-S1	Trib to Nimishillen Creek	29.42	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	9	Wet Cut
A14-159-S1	Trib to Nimishillen Creek	29.91	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	6	Wet Cut
A14-158-S1	Trib to Nimishillen Creek	30.06	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	15	Bore
AS-ST-24	Trib to Nimishillen Creek	30.06	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	15	N/A
AS-ST-21	Trib to West Branch Nimishillen Creek	30.61	Intermittent	Intermediate	WWH	AWS and IWS	Primary Contact B	13	Bore
A14-163-S1	Trib to West Branch Nimishillen Creek	30.74	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	4	Wet Cut
A14-164-S2	West Branch Nimishillen Creek	31.06	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	7	Wet Cut
A14-164-S1	Trib to West Branch Nimishillen Creek	31.31	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	22	Wet Cut
Summit County									
AS-SU-2	Trib to Tuscarawas River	33.4	Intermittent	Intermediate	WWH	AWS and IWS	Primary Contact B	13	N/A
AS-SU-2A	Trib to Tuscarawas River	33.48	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	5	Wet Cut
AS-SU-5	Trib to Tuscarawas River	34.38	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	20	Dry Cut
AP-SU-6	Trib to Tuscarawas River	34.61	Perennial	Major	WWH	AWS and IWS	Primary Contact B	190	N/A
AS-SU-43	Trib to Willowdale Lake	35.38	Intermittent	Intermediate	WWH	AWS and IWS	Primary Contact B	16	Dry Cut
AS-SU-8	Trib to Nimisila Reservoir	35.84	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	2	Dry Cut
AS-SU-9	Trib to Nimisila Reservoir	36.13	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	8	Wet Cut
AS-SU-10	Trib to Nimisila Reservoir	36.42	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	22	Wet Cut
AS-SU-11	Trib to Nimisila Reservoir	36.72	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	5	N/A
A14-166-S1	Trib to Nimisila Reservoir	36.72	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	5	Wet Cut
A14-112-S1	Trib to Nimisila Reservoir	37.15	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	5	Dry Cut
A14-112-S1-a	Trib to Nimisila Reservoir	37.54	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	10	Dry Cut
A14-112-S1-b	Trib to Nimisila Reservoir	37.73	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	10	Dry Cut
A14-112-S2	Trib to Nimisila Reservoir	37.77	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	2	Dry Cut
AS-SU-13	Trib to Nimisila Reservoir	38	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	5	N/A
AS-SU-13	Trib to Nimisila Reservoir	38.01	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	5	N/A
AS-SU-13A	Trib to Nimisila Reservoir	38.05	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	10	Bore



TABLE 2.3-2
Waterbodies Crossed by NEXUS Project

State, Drainage Basin, County, Waterbody ID	Waterbody Name	Milepost b/	Flow TYPE c/	FERC Classification d/	State Water Quality Classification e/	State Water Supply Classification f/	State Recreation Classification g/	Waterbody Width (feet) h/	Proposed Construction Method i/		
A14-120-S2	Trib to Nimisila Reservoir	38.52	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	6	Dry Cut		
A14-120-S1	Trib to Nimisila Reservoir	38.65	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	4	N/A		
AS-SU-14	Trib to Nimisila Reservoir	38.65	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	4	Dry Cut		
AS-SU-15	Trib to Nimisila Reservoir	38.76	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	55	Bore		
AS-SU-17	Nimisila Creek	39.66	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	65	Dry Cut		
AS-SU-17A	Trib to Nimisila Creek	39.80	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	9	Dry Cut		
A14-122-S1	Trib to Nimisila Creek	39.93	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	4	N/A		
AS-SU-18	Trib to Nimisila Creek	40.38	Intermittent	Intermediate	WWH	AWS and IWS	Primary Contact B	11	N/A		
AS-SU-18	Trib to Nimisila Creek	40.39	Intermittent	Intermediate	WWH	AWS and IWS	Primary Contact B	11	N/A		
A14-117-S1	Trib to Nimisila Creek	41.18	Intermittent	Intermediate	WWH	AWS and IWS	Primary Contact B	15	Wet Cut		
AS-SU-21	Trib to Nimisila Creek	41.64	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	5	N/A		
AS-SU-21A	Trib to Nimisila Creek	41.68	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	5	Wet Cut		
AS-SU-22	Trib to Nimisila Creek	41.87	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	9	Dry Cut		
AS-SU-23	Trib to Nimisila Creek	42.08	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	17	Dry Cut		
AS-SU-26	Trib to Nimisila Creek	43.51	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	3	N/A		
AS-SU-29	Trib to Tuscarawas River	43.87	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	5	Wet Cut		
AS-SU-30	Trib to Tuscarawas River	44.10	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	5	Wet Cut		
A14-119-S1	Trib to Tuscarawas River	44.35	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	2.5	Dry Cut		
AS-SU-32	Trib to Tuscarawas River	44.71	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	6	Bore		
AS-SU-31	Trib to Tuscarawas River	44.71	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	6	N/A		
AS-SU-34	Trib to Tuscarawas River	44.75	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	5	N/A		
AS-SU-34	Trib to Tuscarawas River	44.75	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	5	Bore		
AS-SU-35A	Trib to Tuscarawas River	44.94	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	5	Dry Cut		
AS-SU-37	Tuscarawas River	46.01	Perennial	Major	MHW	AWS and IWS	Primary Contact A	105	HDD		
AS-SU-38	Trib to Tuscarawas River	46.12	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	5	HDD		
AP-SU-40	Trib to Pancake Creek	46.75	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	66	N/A		
AS-SU-40	Pancake Creek	46.77	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	24	Dry Cut		
A14-41-S2	Trib to Pancake Creek	47.44	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	3	Dry Cut		
A14-41-S1	Trib to Pancake Creek	47.47	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	4	N/A		
A14-42-S1	Trib to Pancake Creek	47.81	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	3	Dry Cut		
Wayne County											
AS-WE-1	Trib to Pancake Creek	48.15	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	3	Wet Cut		



TABLE 2.3-2
Waterbodies Crossed by NEXUS Project

State, Drainage Basin, County, Waterbody ID	Waterbody Name	Milepost b/	Flow TYPE c/	FERC Classification d/	State Water Quality Classification e/	State Water Supply Classification f/	State Recreation Classification g/	Waterbody Width (feet) h/	Proposed Construction Method i/
AS-WE-4	Trib to Silver Creek	48.92	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	4	N/A
AS-WE-5	Trib to Silver Creek	49.12	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	8	Bore
AS-WE-6	Trib to Silver Creek	49.21	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	5	Dry Cut
AS-WE-9	Trib to Silver Creek	49.87	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	5	Wet Cut
A14-124-S2	Trib to Silver Creek	50.24	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	7	Dry Cut
A14-124-S1	Silver Creek	50.32	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	12	Dry Cut
AS-WE-11	Trib to Silver Creek	50.72	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	9	Bore
AS-WE-11A	Trib to Silver Creek	50.76	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	2	Wet Cut
A14-91-S1	Trib to Mill Creek	51.57	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	4	Dry Cut
A14-93-S1	Trib to Mill Creek	51.69	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	2	N/A
AP-WE-14	Trib to Mill Creek	51.77	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	50	N/A
AS-WE-14	Trib to Mill Creek	51.79	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	3	N/A
AP-WE-16	Trib to Mill Creek	51.8	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	60	N/A
AS-WE-16	Trib to Mill Creek	52.63	Intermittent	Intermediate	WWH	AWS and IWS	Primary Contact B	15	Wet Cut
AS-WE-17	Mill Creek	53.01	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	17	Dry Cut
Medina County									
AS-ME-1	Trib to Styx River	54.43	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	8	Bore
AS-ME-6/A14- 43-S1	Styx River	55.06	Perennial	Intermediate	MWH	AWS and IWS	Primary Contact B	30	Dry Cut
AS-ME-7	Trib to Styx River	56.15	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	4	Wet Cut
A14-44-S1	Trib to Styx River	56.28	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	5	N/A
AS-ME-14	Trib to Styx River	56.86	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	18	Dry Cut
AS-ME-16	Trib to Styx River	57.11	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	7	Wet Cut
AS-ME-17	Trib to Styx River	57.28	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	7	Bore
A14-39-S1	Tommy Run	57.73	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	10	Dry Cut
A14-40-S1	Trib to Tommy Run	57.89	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	8	Dry Cut
A14-40-S2	Trib to Tommy Run	57.91	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	2	Wet Cut
A14-37-S1	Trib to Chippewa Creek	58.68	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	5	N/A
AS-ME-19	Trib to Chippewa Creek	58.80	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	8	Wet Cut
AS-ME-20	Trib to Chippewa Creek	59.07	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	10	Wet Cut
AS-ME-91	Trib to Chippewa Creek	59.75	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	8	Dry Cut
AS-ME-91A	Trib to Chippewa Creek	59.78	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	7	Dry Cut
A14-116-S2	Trib to Hubbard Creek	62.25	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	10	Dry Cut

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TABLE 2.3-2
Waterbodies Crossed by NEXUS Project

State, Drainage Basin, County, Waterbody ID	Waterbody Name	Milepost b/	Flow TYPE c/	FERC Classification d/	State Water Quality Classification e/	State Water Supply Classification	State Recreation Classification g/	Waterbody Width (feet) h/	Proposed Construction Method i/
A14-116-S5	Trib to Hubbard Creek	62.31	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	4	Dry Cut
AS-ME-24	Trib to Hubbard Creek	62.98	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	8	Bore
B14-4-S1	Hubbard Creek	63.16	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	10	Dry Cut
AS-ME-27	Trib to Chippewa Creek	64.35	Intermittent	Intermediate	WWH	AWS and IWS	Primary Contact B	17	Wet Cut
AS-ME-30	Trib to Chippewa Creek	64.55	Intermittent	Intermediate	WWH	AWS and IWS	Primary Contact B	15	Wet Cut
AS-ME-31	Trib to Chippewa Creek	64.61	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	5	Dry Cut
AS-ME-31A	Trib to Chippewa Creek	64.67	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	5	Dry Cut
AS-ME-31B	Trib to Chippewa Creek	64.74	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	4	Dry Cut
AS-ME-32	Trib to Chippewa Creek	64.82	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	5	Dry Cut
AS-ME-34	Trib to Chippewa Creek	65.08	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	21	Dry Cut
AS-ME-35	Trib to McCabe Creek	65.42	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	5	Wet Cut
AS-ME-37A	Trib to McCabe Creek	65.70	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	9	Wet Cut
AS-ME-37	McCabe Creek	65.79	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	22	Wet Cut
AS-ME-37C	Trib to McCabe Creek	65.8	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	3	N/A
AS-ME-39	Trib to The Inlet	66.05	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	10	N/A
AS-ME-39A	Trib to The Inlet	66.38	Intermittent	Intermediate	WWH	AWS and IWS	Primary Contact B	12	N/A
AS-ME-39A	Trib to The Inlet	66.39	Intermittent	Intermediate	WWH	AWS and IWS	Primary Contact B	12	Wet Cut
AS-ME-40	Trib to The Inlet	66.65	Intermittent	Intermediate	WWH	AWS and IWS	Primary Contact B	12	Wet Cut
AS-ME-41A	Trib to The Inlet	66.85	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	15	Wet Cut
AS-ME-41	Trib to The Inlet	66.95	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	15	Wet Cut
AS-ME-46	The Inlet	67.81	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	23	Dry Cut
AS-ME-47	Trib to The Inlet	67.88	Intermittent	Intermediate	WWH	AWS and IWS	Primary Contact B	13	Bore
AS-ME-48	Trib to the Inlet	68.12	Intermittent	Intermediate	WWH	AWS and IWS	Primary Contact B	17	Wet Cut
A14-46-S2	Trib to The Inlet	68.29	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	4	Wet Cut
A14-46-S1	Trib to The Inlet	68.35	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	13	Wet Cut
A14-47-S1	Trib to The Inlet	69.23	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	2	Dry Cut
A14-47-S2	Trib to The Inlet	69.24	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	4	Dry Cut
Lake Erie Basin									
AS-ME-53	Mallet Creek	69.91	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	20	Bore
AS-ME-53B	Trib to Mallet Creek	70.02	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	5	Wet Cut
AS-ME-53A	Trib to Mallet Creek	70.06	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	5	Wet Cut
AS-ME-53	Mallet Creek	70.34	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	20	Dry Cut



TABLE 2.3-2
Waterbodies Crossed by NEXUS Project

State, Drainage Basin, County, Waterbody ID	Waterbody Name	Milepost b/	Flow TYPE c/	FERC Classification d/	State Water Quality Classification e/	State Water Supply Classification	State Recreation Classification g/	Waterbody Width (feet) h/	Proposed Construction Method i/
AS-ME-56	Trib to Mallet Creek	70.64	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	10	N/A
AS-ME-56	Trib to Mallet Creek	70.65	Intermittent	MInor	WWH	AWS and IWS	Primary Contact B	10	Dry Cut
AS-ME-58A	Trib to Mallet Creek	70.82	Intermittent	Intermediate	WWH	AWS and IWS	Primary Contact B	14	Dry Cut
AS-ME-58C	Trib to Mallet Creek	70.87	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	5	Wet Cut
AS-ME-58B	Trib to Mallet Creek	70.94	Intermittent	Intermediate	WWH	AWS and IWS	Primary Contact B	14	Wet Cut
B14-9-S1	Trib to Mallet Creek	71.25	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	4	N/A
AS-ME-62A	Trib to Mallet Creek	71.82	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	5	N/A
AS-ME-62	Trib to Mallet Creek	71.83	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	5	Wet Cut
B14-10-S1	Trib to Mallet Creek	72.05	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	2	Dry Cut
AS-ME-64	Trib to Mallet Creek	72.52	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	17	Wet Cut
AS-ME-67	Trib to Mallet Creek	73.21	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	5	Wet Cut
AS-ME-69	Trib to Mallet Creek	73.51	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	4	Bore
AS-ME-73	Mallet Creek	73.90	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	39	Dry Cut
AS-ME-74B	Trib to Mallet Creek	74.06	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	5	Dry Cut
AS-ME-74	Trib to Mallet Creek	74.10	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	9	Dry Cut
AS-ME-75	Trib to Mallet Creek	74.43	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	16	Dry Cut
AS-ME-96	Trib to West Branch Rocky River	75.61	Intermittent	Intermediate	WWH	AWS and IWS	Primary Contact B	14	Wet Cut
AS-ME-97	Trib to West Branch Rocky River	75.77	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	6	N/A
AS-ME-97	Trib to West Branch Rocky River	75.77	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	6	Bore
AS-ME-98	Trib to West Branch Rocky River	76.05	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	5	Dry Cut
AS-ME-99	Trib to West Branch Rocky River	76.21	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	5	Dry Cut
Lorain County									
AS-LO-1	Trib to East Branch Black River	77.05	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	19	Dry Cut
AS-LO-1	Trib to East Branch Black River	77.16	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	19	Dry Cut
AS-LO-1	Trib to East Branch Black River	77.23	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	19	Dry Cut
AS-LO-1	Trib to East Branch Black River	77.25	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	19	Dry Cut
AS-LO-31B	Trib to East Branch Black River	77.48	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	5	Wet Cut
AS-LO-34	Trib to East Branch Black River	77.76	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	4	Wet Cut
A14-56-S2	Trib to East Branch Black River	78.06	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	4	Dry Cut
A14-56-S1	Trib to East Branch Black River	78.17	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	2	Dry Cut
A14-59-S1	Trib to East Branch Black River	78.68	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	2	N/A
AS-LO-38	Trib to East Branch Black River	79.17	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	8	Bore



TABLE 2.3-2
Waterbodies Crossed by NEXUS Project

State, Drainage Basin, County, Waterbody ID	Waterbody Name	Milepost b/	Flow TYPE c/	FERC Classification d/	State Water Quality Classification e/	State Water Supply Classification f/	State Recreation Classification g/	Waterbody Width (feet) h/	Proposed Construction Method i/
AS-LO-38	Trib to East Branch Black River	79.2	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	8	N/A
A14-61-S1	Trib to East Branch Black River	79.22	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	8	Bore
A14-61-S1	Trib to East Branch Black River	79.25	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	8	Bore
AS-LO-48	Salt Creek	80.97	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact A	15	Dry Cut
AS-LO-47	Trib to East Branch Black River	81.28	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	5	Dry Cut
AS-LO-9	Trib to East Branch Black River	81.63	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	5	Bore
AS-LO-10	Trib to East Branch Black River	82.44	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	15	Wet Cut
AS-LO-10	Trib to East Branch Black River	82.55	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	15	Bore
A14-50-S1	East Branch Black River	83.33	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact A	65	HDD
AS-LO-11	Trib to East Branch Black River	83.68	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	10	Bore
A14-55-S1	Trib to West Branch Black River	83.92	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	5	Wet Cut
AS-LO-45	Trib to East Branch Black River	84.61	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	10	Wet Cut
A14-73-S1	King Ditch	85.23	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	7	Dry Cut
A14-128-S1	Trib to West Branch Black River	85.84	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	3	Bore
A14-75-S1	Trib to West Branch Black River	85.85	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	3	Bore
A14-75-S2	Trib to West Branch Black River	85.91	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	8	Wet Cut
A14-76-S1	Kelner Ditch	86.82	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	15	Dry Cut
A14-130-S1	Trib to West Branch Black River	87.07	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	3	Wet Cut
AS-LO-15	Trib to West Branch Black River	87.07	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	3	N/A
AS-LO-17	Elk Creek	87.93	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	37	Dry Cut
AS-LO-19	Wellington Creek	88.37	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	52	Dry Cut
AS-LO-21	Trib to West Branch Black River	88.84	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	83	HDD
AS-LO-20	West Branch Black River	88.96	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact A	72	HDD
AS-LO-22	Trib to West Branch Black River	89.18	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	20	Dry Cut
A14-140-S1	Trib to West Branch Black River	90.02	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	2	Bore
A14-141-S1	Plum Creek	92.67	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	10	Dry Cut
AS-LO-28	Trib to Plum Creek	93.24	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	5	Bore
A14-138-S1	Trib to Plum Creek	93.31	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	12	Bore
A14-138-S2	Trib to Plum Creek	93.38	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	6	Dry Cut
A14-152-S1	Trib to East Fork Vermillion River	97.36	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	10	Wet Cut
A14-146-S1	Trib to East Fork Vermillion River	97.76	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	5	N/A
A14-148-S1	East Fork Vermillion River	98.07	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	75	Dry Cut



TABLE 2.3-2
Waterbodies Crossed by NEXUS Project

State, Drainage Basin, County, Waterbody ID	Waterbody Name	Milepost b/	Flow TYPE c/	FERC Classification d/	State Water Quality Classification e/	State Water Supply Classification f/	State Recreation Classification g/	Waterbody Width (feet) h/	Proposed Construction Method i/		
Erie County											
A14-198-S1	Trib to Vermillion River	99.84	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	1.5	N/A		
AS-ER-100-S2	Trib to Vermillion River	100.34	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	12	HDD		
A14-197-S2	Trib to Vermillion River	100.34	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	12	HDD		
AS-ER-100-S1	Vermillion River	100.40	Perennial	Major	WWH	AWS and IWS and SSH	Primary Contact A	130	HDD		
AS-ER-100-S3	Trib to Vermillion River	100.45	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	1	HDD		
AS-ER-50	Trib to Chappel Creek	101.18	Intermittent	Intermediate	WWH	AWS and IWS	Primary Contact B	13	Dry Cut		
AS-ER-49A	Trib to Chappel Creek	101.8	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	6	N/A		
AS-ER-49	Trib to Chappel Creek	101.89	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	38	Dry Cut		
AS-ER-51	Trib to Chappel Creek	105.78	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	8	Wet Cut		
AS-ER-41	Trib to Old Woman Creek	106.67	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	7	Bore		
AS-ER-53	Trib to Old Woman Creek	107.53	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	5	Wet Cut		
AS-ER-35	Trib to Old Woman Creek	108.98	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	3	Dry Cut		
A14-187-S1	Old Woman Creek	109.12	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	28	Dry Cut		
A14-188-S2	Trib to Old Woman Creek	109.3	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	5	N/A		
A14-188-S1	Trib to Old Woman Creek	109.30	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	10	Dry Cut		
AS-ER-12	Trib to Old Women Creek	109.82	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	33	Dry Cut		
AS-ER-13	Trib to Old Woman Creek	110.23	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	5	Dry Cut		
AS-ER-15	Trib to Huron River	111.37	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	6	Dry Cut		
AS-ER-16	Trib to Huron River	111.71	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	28	Dry Cut		
AS-ER-36	Trib to Huron River	111.95	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	3	Bore		
AS-ER-36A	Trib to Huron River	112.05	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	3	Dry Cut		
AS-ER-17	Trib to Huron River	112.15	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	5	Dry Cut		
A14-155-S1	Trib to Huron River	112.49	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	10	Dry Cut		
A14-186-S1/AS- ER-19	Huron River	112.85	Perennial	Major	WWH	AWS and IWS and SSH	Primary Contact A	195	HDD		
AS-ER-20A	Trib to Huron River	113.01	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	3	HDD		
AS-ER-20	Trib to Huron River	113.08	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	3	N/A		
AS-ER-21	Trib to Mud Brook	113.45	Intermittent	Intermediate	WWH	AWS and IWS	Primary Contact B	11	Wet Cut		
AS-ER-22	Trib to Mud Brook	114.35	Intermittent	Intermediate	WWH	AWS and IWS	Primary Contact B	20	Dry Cut		
AS-ER-37	Trib to Mud Brook	114.72	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	10	Wet Cut		
E14-97-S1	Mud Brook	114.88	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	19	Wet Cut		



TABLE 2.3-2
Waterbodies Crossed by NEXUS Project

State, Drainage Basin, County, Waterbody ID	Waterbody Name	Milepost b/	Flow TYPE c/	FERC Classification d/	State Water Quality Classification e/	State Water Supply Classification	State Recreation Classification g/	Waterbody Width (feet) h/	Proposed Construction Method i/
AS-ER-25	Zorn Beutal Ditch	116.01	Intermittent	Intermediate	WWH	AWS and IWS	Primary Contact B	24	Wet Cut
AS-ER-51	Sherer Ditch	116.21	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	10	Wet Cut
AS-ER-52	Sherer Ditch	116.73	Intermittent	Intermediate	WWH	AWS and IWS	Primary Contact B	13	Wet Cut
AS-ER-26	Trib to Sherer Ditch	117.81	Intermittent	Intermediate	WWH	AWS and IWS	Primary Contact B	15	Wet Cut
AS-ER-26	Trib to Sherer Ditch	117.90	Intermittent	Intermediate	WWH	AWS and IWS	Primary Contact B	15	Wet Cut
E14-96-S1	Trib to Sherer Ditch	118.81	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	6	Wet Cut
AS-ER-28	Trib to Pipe Creek	119.77	Intermittent	Intermediate	WWH	AWS and IWS	Primary Contact B	20	Wet Cut
AS-ER-38	Trib to Pipe Creek	121.45	Intermittent	Intermediate	WWH	AWS and IWS	Primary Contact B	17	Wet Cut
E14-95-S1	Pipe Creek	121.60	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	10	Bore
E14-49-S1	Trib to Pipe Creek	123.08	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	5	Wet Cut
E14-50-S1	Trib to Mills Creek	123.56	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	10	Wet Cut
E14-51-S1	Trib to Mills Creek	123.80	Perennial	Intermediate	WWH	AWS and IWS	Secondary Contact	15	Wet Cut
E14-94-S1	Mills Creek	124.88	Perennial	Intermediate	WWH	AWS and IWS	Secondary Contact	30	Dry Cut
Sandusky County									
D14-1-S1	Scherz Ditch	129.98	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	27	Dry Cut
D14-4-S1	Strong Creek	130.98	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	15	Wet Cut
D14-5-S1	Trib to Strong Creek	131.05	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	3	Bore
D14-6-S1	Fuller Creek	131.68	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	13	Wet Cut
D14-7-S1	Trib to Fuller Creek	132.05	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	6	Bore
AS-SA-1	Trib to Fuller Creek	132.60	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	5	Wet Cut
E14-105-S1	Pickerel Creek	133.60	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	18	Dry Cut
D14-9-S1	Little Raccoon Creek	134.24	Perennial	Minor	WWH	AWS and IWS	Secondary Contact	10	Bore
D14-10-S1	Trib to Little Raccoon Creek	134.67	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	6	Dry Cut
D14-10-S1	Trib to Little Raccoon Creek	134.67	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	6	N/A
AS-SA-70	Trib to Racoon Creek	135.39	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	7	Wet Cut
AS-SA-71	Trib to Racoon Creek	135.42	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	7	Wet Cut
D14-8-S1	Raccoon Creek	135.47	Perennial	Intermediate	WWH	AWS and IWS	Secondary Contact	30	Wet Cut
E14-103-S1	South Creek	136.14	Perennial	Intermediate	WWH	AWS and IWS	Priamry Contact B	22	Dry Cut
AS-SA-4	Trib to South Creek	136.71	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	17	Dry Cut
AS-SA-78	Green Creek	137.24	Perennial	Intermediate	WWH	AWS and IWS	Priamry Contact B	35	Dry Cut
AS-SA-100	Trib to Buehler Ditch	138.25	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	7	Bore
E14-36-S1	Trib to Buehler Ditch	138.54	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	10	Dry Cut



TABLE 2.3-2
Waterbodies Crossed by NEXUS Project

State, Drainage Basin, County, Waterbody ID	Waterbody Name	Milepost b/	Flow TYPE c/	FERC Classification d/	State Water Quality Classification e/	State Water Supply Classification f/	State Recreation Classification g/	Waterbody Width (feet) h/	Proposed Construction Method i/
D14-40-S1	Bark Creek	139.27	Perennial	Intermediate	WWH	AWS and IWS	Priamry Contact B	20	Dry Cut
E14-19-S1	Trib to Sandusky River	140.53	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	8	N/A
E14-31-S1	Sandusky River	141.28	Perennial	Major	WWH	AWS and IWS	Primary Contact A	390	HDD
AS-SA-6	Trib to Sandusky River	141.5	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	6	HDD
AP-SA-6	Trib to Sandusky River	141.54	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	25	N/A
D14-33-S1	Trib to Muskellunge Creek	142.41	Ephemeral	Intermediate	WWH	AWS and IWS	Primary Contact B	14	Bore
E14-98-S1	Trib to Muskellunge Creek	142.56	DRAINAGE DITCH	Minor	WWH	AWS and IWS	Primary Contact B	5	Wet Cut
E14-121-S1	Trib to Muskellunge Creek	142.66	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	9	Wet Cut
AS-SA-82	Little Muddy Creek	144.30	Perennial	Intermediate	WWH	AWS and IWS	Priamry Contact B	18	Dry Cut
E14-43-S1/AS- SA-9	Muddy Creek	148.30	Perennial	Intermediate	WWH	AWS and IWS	Priamry Contact B	24	Dry Cut
E14-181-S1	Trib to Muddy Creek	148.70	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	5	Bore
AS-SA-10	Trib to Muddy Creek	149.39	Intermittent	Intermediate	WWH	AWS and IWS	Primary Contact B	13	Wet Cut
E14-109-S1	Trib to Ninemile Creek	149.68	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	4	Bore
E14-42-S1	Ninemile Creek	150.13	Intermittent	Intermediate	WWH	AWS and IWS	Priamry Contact B	18	Dry Cut
E14-3-S1	Trib to Ninemile Creek	150.87	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	4	Bore
AS-SA-14	Wolf Creek	152.75	Intermittent	Intermediate	WWH	AWS and IWS	Priamry Contact B	12	Dry Cut
D14-25-S1	Sugar Creek	153.55	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact A	35	Dry Cut
AS-SA-15	Trib to Victoria Creek	155.71	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	9	Wet Cut
E14-108-S1	Victoria Creek	156.22	Ephemeral	Intermediate	WWH	AWS and IWS	Primary Contact B	13	Dry Cut
AS-SA-75	Portage River	157.42	Perennial	Major	WWH	AWS and IWS	Primary Contact A	170	HDD
AS-SA-16	Trib to Portage River	158.00	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	9	Bore
Wood County									
E14-111-S1	Martin Ditch	158.74	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	17	Bore
AS-WO-4	Trib to Marin Ditch	158.99	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	7	Wet Cut
D14-31-S1	Trib to Martin Ditch	159.59	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	10	Dry Cut
E14-85-S1	Trib to Toussaint Creek	160.46	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	13	Dry Cut
E14-153-S1	Trib to Toussaint Creek	161.34	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	6	Wet Cut
AS-WO-14	Trib to Toussaint Creek	161.64	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	6	Bore
D14-34-S1	Trib to Toussaint Creek	161.64	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	6	N/A
E14-175-S1	Toussaint Creek	162.19	Perennial	Intermediate	WWH	AWS and IWS	Priamry Contact B	24	Dry Cut
AS-WO-1	Trib to Toussaint Creek	163.07	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	10	Dry Cut



TABLE 2.3-2
Waterbodies Crossed by NEXUS Project

State, Drainage Basin, County, Waterbody ID	Waterbody Name	Milepost b/	Flow TYPE c/	FERC Classification d/	State Water Quality Classification e/	State Water Supply Classification f/	State Recreation Classification g/	Waterbody Width (feet) h/	Proposed Construction Method i/
E14-48-S1	Trib to Toussaint Creek	163.16	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	10	Bore
E14-79-S1	Trib to Packer Creek	165.29	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	7	Bore
E14-80-S1	Trib to Packer Creek	165.67	Ephemeral	Intermediate	WWH	AWS and IWS	Primary Contact B	15	Bore
E14-40-S1	Packer Creek	165.98	Perennial	Intermediate	WWH	AWS and IWS	Priamry Contact B	25	Dry Cut
AS-WO-5	Trib to Packer Creek	167.43	Intermittent	Intermediate	WWH	AWS and IWS	Primary Contact B	12	Bore
AS-WO-6	Trib to Packer Creek	168.81	Intermittent	Intermediate	WWH	AWS and IWS	Primary Contact B	11	Bore
E14-35-S1	Trib to Cedar Creek	169.33	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	10	Bore
AS-WO-7	Trib to Cedar Creek	170.33	Intermittent	Intermediate	WWH	AWS and IWS	Primary Contact B	23	Bore
AS-WO-8	Trib to Cedar Creek	172.03	Intermittent	Intermediate	WWH	AWS and IWS	Primary Contact B	18	Bore
D14-45A-S1	Trib to Maumee River	172.79	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	8	Bore
AS-WO-18	Trib to Maumee River	174.67	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	24	HDD
AS-WO-19	Trib to Maumee River	175.36	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	5	Dry Cut
E14-44-S1	Trib to Maumee River	175.47	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	10	Dry Cut
E14-47-S1	Trib to Maumee River	175.67	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	3	Bore
Lucas County									
AS-LU-1	Maumee River	176.12	Perennial	Major	WWH	AWS and IWS	Primary Contact A	750	HDD
AS-LU-1A	Maumee River	176.37	Perennial	Major	WWH	AWS and IWS	Primary Contact A	610	HDD
E14-116-S1	Blystone Ditch	177.24	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	10	Wet Cut
E14-29-S1	Suter Ditch	177.95	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	9	Wet Cut
AS-LU-2	Trib to Whitemeir Ditch	178.04	Ephemeral	Intermediate	WWH	AWS and IWS	Primary Contact B	15	Bore
E14-1-S1	Whitemeir Ditch	178.23	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	10	Wet Cut
AS-LU-3	Trib to Whitemeir Ditch	178.38	Intermittent	Intermediate	WWH	AWS and IWS	Primary Contact B	15	Wet Cut
AS-LU-4	Disher Ditch	178.78	Intermittent	Intermediate	WWH	AWS and IWS	Primary Contact B	18	Wet Cut
AS-LU-5	Harris Ditch	179.95	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	18	Bore
E14-22-S1	Trib to Blue Creek	181.27	Intermittent	Intermediate	WWH	AWS and IWS	Primary Contact B	12	Wet Cut
AS-LU-16	Doran Ditch	181.99	Intermittent	Intermediate	WWH	AWS and IWS	Primary Contact B	12	Bore
AS-LU-17	Yawberg Ditch	182.12	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	8	Wet Cut
AS-LU-18	Jeffers Ditch	182.36	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	5	Wet Cut
AS-LU-20	Laver Ditch	182.78	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	10	Wet Cut
Henry County									
AS-HE-2	Trib to Aumend Ditch	184.14	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	8	Dry Cut
AS-HE-3	Trib to Aumend Ditch	184.35	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	6	Dry Cut



TABLE 2.3-2
Waterbodies Crossed by NEXUS Project

State, Drainage Basin, County, Waterbody ID	Waterbody Name	Milepost b/	Flow TYPE c/	FERC Classification d/	State Water Quality Classification e/	State Water Supply Classification f/	State Recreation Classification g/	Waterbody Width (feet) h/	Proposed Construction Method i/
AS-HE-7	Trib to Aumend Ditch	184.83	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	10	Bore
Fulton County									
AS-FU-55	Blue Creek	185.60	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	20	Dry Cut
AS-FU-55A	Trib to Blue Creek	185.73	Perennial	Minor	WWH	AWS and IWS	Primary Contact B	10	Dry Cut
AS-FU-56	Trib to Blue Creek	186.30	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	8	Wet Cut
AS-FU-57	Trib to Blue Creek	186.97	Intermittent	Intermediate	WWH	AWS and IWS	Primary Contact B	16	Dry Cut
AS-FU-57	Trib to Blue Creek	186.99	Intermittent	Intermediate	WWH	AWS and IWS	Primary Contact B	16	N/A
AS-FU-61	Trib to Blue Creek	187.88	Intermittent	Intermediate	WWH	AWS and IWS	Primary Contact B	15	Wet Cut
AS-FU-59	Trib to Swan Creek	188.54	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	5	Wet Cut
AS-FU-60	Trib to Swan Creek	189.66	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	8	Dry Cut
AS-FU-61	Fewless Creek	189.92	Perennial	Intermediate	WWH	AWS and IWS	Priamry Contact B	13	Dry Cut
AS-FU-62	Trib to Swan Creek	190.52	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	8	Bore
AS-FU-63	Swan Creek	191.03	Perennial	Intermediate	WWH	AWS and IWS	Priamry Contact B	20	Bore
AS-FU-65	Trib to Swan Creek	191.88	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	5	Wet Cut
AS-FU-66	Trib to Swan Creek	192.14	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	8	Dry Cut
AS-FU-67	Trib to Ai Creek	192.49	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	4	Bore
AS-FU-68	Trib to Ai Creek	193.28	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	8	Dry Cut
E14-4-S1	Ai Creek	195.42	Perennial	Intermediate	WWH	AWS and IWS	Priamry Contact B	25	Dry Cut
AS-FU-20	Frankfort Ditch	196.76	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	12	Dry Cut
D14-24-S1	Trib to McNett Ditch	197.32	Ephemeral	Minor	WWH	AWS and IWS	Primary Contact B	5	Bore
E14-112-S1	Trib to McNett Ditch	198.06	Ephemeral	Intermediate	WWH	AWS and IWS	Primary Contact B	11	Wet Cut
D14-44-S1	Trib to Langenderfer Ditch	198.39	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	15	Bore
D14-44-S1	Trib to Langenderfer Ditch	198.51	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	15	Dry Cut
D14-44-S1	Trib to Langenderfer Ditch	198.56	Perennial	Intermediate	WWH	AWS and IWS	Primary Contact B	15	Dry Cut
E14-53-S1	Trib to Langenderfer Ditch	199.73	Intermittent	Intermediate	WWH	AWS and IWS	Primary Contact B	12	Wet Cut
AS-FU-21	Trib to Langenderfer Ditch	200.07	Intermittent	Intermediate	WWH	AWS and IWS	Primary Contact B	15	Wet Cut
AS-FU-22	Trib to Langenderfer Ditch	200.46	Intermittent	Intermediate	WWH	AWS and IWS	Primary Contact B	12	Bore
AS-FU-50	Trib to Schmitz Ditch	200.72	Intermittent	Intermediate	WWH	AWS and IWS	Primary Contact B	20	Dry Cut
E14-11-S1	Trib to Schmitz Ditch	200.72	Intermittent	Intermediate	WWH	AWS and IWS	Primary Contact B	20	N/A
E14-12-S1	Trib to Tenmile Creek	201.47	Intermittent	Minor	WWH	AWS and IWS	Primary Contact B	8	Bore
AS-FU-23	Tenmile Creek	202.36	Perennial	Intermediate	WWH	AWS and IWS	Priamry Contact B	20	Dry Cut
D14-45-S1	Tenmile Creek	202.37	Perennial	Intermediate	WWH	AWS and IWS	Priamry Contact B	20	Dry Cut



				TABLE 2.3-2					
			Waterbodies	Crossed by NEX	US Project				
State, Drainage Basin, County, Waterbody ID	Waterbody Name	Milepost b/	Flow TYPE c/	FERC Classification d/	State Water Quality Classification e/	State Water Supply Classification	State Recreation Classification g/	Waterbody Width (feet) h/	Proposed Construction Method i/
Michigan									
Lenawee County									
E14-113-S1	Trib to Tenmile Creek	203.22	Intermittent	Intermediate	WWH	AWS and IWS	Partial/Total	14	Wet Cut
E14-114-S1	Trib to Tenmile Creek	203.46	Intermittent	Intermediate	WWH	AWS and IWS	Partial/Total	11	Bore
AS-LE-1	Trib to Tenmile Creek	204.45	Ephemeral	Minor	WWH	AWS and IWS	Partial/Total	5	Bore
E14-78-S1	Trib to Tenmile Creek	205.45	Ephemeral	Minor	WWH	AWS and IWS	Partial/Total	4	Bore
E14-56-S1	Trib to Tenmile Creek	206.48	Ephemeral	Minor	WWH	AWS and IWS	Partial/Total	8	Bore
E14-137-S1	Trib to Clement Drain	207.44	Intermittent	Minor	WWH	AWS and IWS	Partial/Total	8	Bore
E14-138-S1	Trib to Clement Drain	207.95	Intermittent	Intermediate	WWH	AWS and IWS	Partial/Total	11	Wet Cut
E14-139-S1	Trib to Clement Drain	208.47	Perennial	Minor	WWH	AWS and IWS	Partial/Total	8	Bore
AS-LE-3/E14- 140-S1	River Raisin	209.77	Perennial	Intermediate	WWH	AWS and IWS	Partial/Total	80	N/A
AS-LE-5	Trib to River Raisin	210.67	Ephemeral	Minor	WWH	AWS and IWS	Partial/Total	7	Wet Cut
E14-58-S1	Goodrich Drain	211.15	Intermittent	Intermediate	WWH	AWS and IWS	Partial/Total	15	Dry Cut
AS-LE-6	Trib to Goodrich Drain	211.49	Ephemeral	Minor	WWH	AWS and IWS	Partial/Total	5	Bore
AS-LE-13	Trib to Goodrich Drain	211.49	Ephemeral	Minor	WWH	AWS and IWS	Partial/Total	5	N/A
AS-LE-7	Trib to Goodrich Drain	211.50	Intermittent	Minor	WWH	AWS and IWS	Partial/Total	7	Bore
E14-59-S1	Trib to Goodrich Drain	211.87	Intermittent	Intermediate	WWH	AWS and IWS	Partial/Total	16	Dry Cut
AS-LE-8	Hill Drain	212.47	Intermittent	Intermediate	WWH	AWS and IWS	Partial/Total	13	Dry Cut
E14-141-S1	Pease Drain	212.89	Intermittent	Intermediate	WWH	AWS and IWS	Partial/Total	12	Dry Cut
E14-142-S1	Colvin Drain	213.19	Intermittent	Intermediate	WWH	AWS and IWS	Partial/Total	11	Dry Cut
AS-LE-9	Trib to Little River Raisin	214.00	Ephemeral	Minor	WWH	AWS and IWS	Partial/Total	5	Bore
AS-LE-10	Trib to Little River Raisin	214.44	Ephemeral	Minor	WWH	AWS and IWS	Partial/Total	5	Bore
E14-143-S1	Little River Raisin	214.85	Perennial	Intermediate	WWH	AWS and IWS	Partial/Total	18	Wet Cut
E14-64-S1	Fry Drain	215.07	Intermittent	Intermediate	WWH	AWS and IWS	Partial/Total	13	Bore
E14-69-S1	Isley Drain	216.41	Ephemeral	Intermediate	WWH	AWS and IWS	Partial/Total	15	Bore
E14-76-S1	Swamp Raisin Creek	216.85	Intermittent	Intermediate	WWH	AWS and IWS	Partial/Total	23	Dry Cut
E14-77-S1	Trib to Swamp Raisin Creek	217.03	Intermittent	Intermediate	WWH	AWS and IWS	Partial/Total	11	Bore
E14-145-S1	Spring Brook	217.61	Perennial	Intermediate	WWH	AWS and IWS	Partial/Total	20	Bore
E14-171-S1	Schwab Drain	218.20	Perennial	Intermediate	WWH	AWS and IWS	Partial/Total	12	Wet Cut
E14-70-S1	Kelly Drain	218.78	Perennial	Intermediate	WWH	AWS and IWS	Partial/Total	15	Bore
AS-LE-48	Wilson Drain	219.48	Ephemeral	Minor	WWH	AWS and IWS	Partial/Total	5	Wet Cut
E14-146-S1	Trib to South Branch Macon Creek	220.12	Intermittent	Intermediate	WWH	AWS and IWS	Partial/Total	13	Bore



TABLE 2.3-2
Waterbodies Crossed by NEXUS Project

State, Drainage Basin, County, Waterbody ID	Waterbody Name	Milepost b/	Flow TYPE c/	FERC Classification d/	State Water Quality Classification e/	State Water Supply Classification f/	State Recreation Classification g/	Waterbody Width (feet) h/	Proposed Construction Method i/
E14-147-S1	Dibble Drain	220.35	Perennial	Intermediate	WWH	AWS and IWS	Partial/Total	16	Wet Cut
E14-127-S1	South Branch Macon Creek	220.75	Perennial	Intermediate	WWH	AWS and IWS	Partial/Total	22	Dry Cut
E14-126-S1	Trib to South Branch Macon Creek	220.93	Perennial	Intermediate	WWH	AWS and IWS	Partial/Total	22	Bore
E14-74-S1	Schreeder Brook	221.15	Ephemeral	Minor	WWH	AWS and IWS	Partial/Total	10	Dry Cut
E14-75-S1	Trib to Wahoo Prairie Drain	221.32	Ephemeral	Minor	WWH	AWS and IWS	Partial/Total	10	Bore
E14-60-S1	Wahoo Prairie Drain	222.46	Intermittent	Intermediate	WWH	AWS and IWS	Partial/Total	18	Wet Cut
E14-149-S1	Trib to Middle Branch Macon Creek	223.11	Intermittent	Intermediate	WWH	AWS and IWS	Partial/Total	13	Wet Cut
AS-LE-12	Trib to Middle Branch Macon Creek	223.11	Intermittent	Intermediate	WWH	AWS and IWS	Partial/Total	13	Wet Cut
E14-150-S1	Trib to Macon Creek	223.70	Intermittent	Intermediate	WWH	AWS and IWS	Partial/Total	14	Bore
E14-87-S1	Macon Creek	223.86	Perennial	Intermediate	WWH	AWS and IWS	Partial/Total	28	Dry Cut
E14-87-S2	Trib to Macon Creek	223.86	Ephemeral	Minor	WWH	AWS and IWS	Partial/Total	3	N/A
E14-61-S1	Trib to Macon Creek	224.14	Intermittent	Intermediate	WWH	AWS and IWS	Partial/Total	20	Dry Cut
E14-62-S1	Trib to Macon Creek	224.68	Ephemeral	Minor	WWH	AWS and IWS	Partial/Total	5	N/A
Monroe County									
E14-63-S1	Trib to Richardson Drain	225.03	Intermittent	Intermediate	WWH	AWS and IWS	Partial/Total	16	Wet Cut
AS-MO-1	Richardson Drain	225.74	Intermittent	Intermediate	WWH	AWS and IWS	Partial/Total	15	Dry Cut
E14-65-S1	Bear Swamp Creek	226.22	Perennial	Intermediate	WWH	AWS and IWS	Partial/Total	12	Dry Cut
E14-66-S1	Trib to Bear Swamp Creek	226.71	Ephemeral	Minor	WWH	AWS and IWS	Partial/Total	8	Dry Cut
E14-67-S1	Trib to Bear Swamp Creek	226.80	Ephemeral	Minor	WWH	AWS and IWS	Partial/Total	6	Bore
E14-86-S2	Trib to Cone Drain	227.35	Ephemeral	Minor	WWH	AWS and IWS	Partial/Total	5	N/A
AS-MO-12	Trib to Cone Drain	227.39	Ephemeral	Minor	WWH	AWS and IWS	Partial/Total	3	N/A
AS-MO-11	Cone Drain	227.60	Intermittent	Minor	WWH	AWS and IWS	Partial/Total	9	Dry Cut
AS-MO-2	Trib to Center Creek	228.01	Intermittent	Intermediate	WWH	AWS and IWS	Partial/Total	15	Wet Cut
AS-MO-10A	Trib to Center Creek	228.58	Ephemeral	Minor	WWH	AWS and IWS	Partial/Total	5	Bore
AS-MO-10	Center Creek	228.71	Perennial	Intermediate	WWH	AWS and IWS	Partial/Total	15	Dry Cut
E14-71-S1	Trib to North Branch MaconCreek	229.09	Ephemeral	Minor	WWH	AWS and IWS	Partial/Total	4	N/A
E14-72-S1	Trib to North Branch MaconCreek	229.23	Ephemeral	Minor	WWH	AWS and IWS	Partial/Total	5	Wet Cut
AS-MO-3	Trib to North Branch Macon Creek	229.67	Ephemeral	Minor	WWH	AWS and IWS	Partial/Total	9	Wet Cut
AS-MO-4	North Branch Macon Creek	230.29	Perennial	Intermediate	WWH	AWS and IWS	Partial/Total	15	Dry Cut
Washtenaw Coun	ty								
E14-157-S1	Saline River	231.88	Perennial	Intermediate	WWH	AWS and IWS	Partial/Total	60	HDD
E14-159-S1	Trib to Saline River	232.53	Ephemeral	Minor	WWH	AWS and IWS	Partial/Total	8	Bore



TABLE 2.3-2
Waterbodies Crossed by NEXUS Project

E14-88-S1 E14-89-S1 E14-90-S1 E14-165-S1 E14-91-S1 E14-92-S1 AS-WA-2 E14-93-S1 E14-128-S3 E14-128-S1 AS-WA-3	McIntyre Drain Trib to McIntyre Drain Trib to McIntyre Drain Trib to McIntyre Drain Trib to Sugar Creek Sugar Creek Trib to Sugar Creek	233.4 233.53 233.62 233.65 233.94	Intermittent Intermittent Ephemeral Ephemeral	Minor Minor Intermediate	WWH WWH	AWS and IWS	Partial/Total	7	Wet Cut
E14-90-S1 E14-165-S1 E14-91-S1 E14-92-S1 AS-WA-2 E14-93-S1 E14-128-S3 E14-128-S1 AS-WA-3	Trib to McIntyre Drain Trib to McIntyre Drain Trib to Sugar Creek Sugar Creek Trib to Sugar Creek	233.62 233.65 233.94	Ephemeral		WWH			•	Wei Gul
E14-165-S1 E14-91-S1 E14-92-S1 AS-WA-2 E14-93-S1 E14-128-S3 E14-128-S1 AS-WA-3	Trib to McInfyre Drain Trib to Sugar Creek Sugar Creek Trib to Sugar Creek	233.65 233.94	•	Intermediate	* * * * 1 1	AWS and IWS	Partial/Total	7	Wet Cut
E14-91-S1 E14-92-S1 AS-WA-2 E14-93-S1 E14-128-S3 E14-128-S1 AS-WA-3	Trib to Sugar Creek Sugar Creek Trib to Sugar Creek	233.94	Ephemeral	intermediate	WWH	AWS and IWS	Partial/Total	16	Bore
E14-92-S1 AS-WA-2 E14-93-S1 E14-128-S3 E14-128-S1 AS-WA-3	Sugar Creek Trib to Sugar Creek			Minor	WWH	AWS and IWS	Partial/Total	8	Bore
AS-WA-2 E14-93-S1 E14-128-S3 E14-128-S1 AS-WA-3	Trib to Sugar Creek	004.05	Perennial	Intermediate	WWH	AWS and IWS	Partial/Total	15	Wet Cut
E14-93-S1 E14-128-S3 E14-128-S1 AS-WA-3		234.05	Perennial	Intermediate	WWH	AWS and IWS	Partial/Total	11	Dry Cut
E14-128-S3 E14-128-S1 AS-WA-3	Trib to Duals Crook	234.18	Ephemeral	Minor	WWH	AWS and IWS	Partial/Total	5	Bore
E14-128-S1 AS-WA-3	Trib to Buck Creek	234.86	Intermittent	Minor	WWH	AWS and IWS	Partial/Total	10	Wet Cut
AS-WA-3	Trib to Buck Creek	235.03	Ephemeral	Minor	WWH	AWS and IWS	Partial/Total	4	N/A
	Buck Creek	235.04	Perennial	Intermediate	WWH	AWS and IWS	Partial/Total	13	Dry Cut
	Trib to Stony Creek	235.71	Intermittent	Intermediate	WWH	AWS and IWS	Partial/Total	12	Dry Cut
E14-131-S1	Trib to Stony Creek	236.33	Ephemeral	Minor	WWH	AWS and IWS	Partial/Total	6	Bore
E14-132-S1	Stony Creek	236.54	Perennial	Minor	WWH	AWS and IWS	Partial/Total	8	Dry Cut
E14-161-S1	Trib to McCarthy Drain	237.94	Intermittent	Minor	WWH	AWS and IWS	Partial/Total	10	Bore
E14-135-S1	McCarthy Drain	238.41	Perennial	Minor	WWH	AWS and IWS	Partial/Total	10	Dry Cut
E14-162-S1	West Branch Paint Creek	239.00	Perennial	Intermediate	WWH	AWS and IWS	Partial/Total	14	Dry Cut
E14-99-S1	Trib to Bird Drain	239.28	Ephemeral	Minor	WWH	AWS and IWS	Partial/Total	5	Bore
AS-WA-5	Bird Drain	239.56	Ephemeral	Minor	WWH	AWS and IWS	Partial/Total	10	N/A
AS-WA-6/E14- 164-S1	Paint Creek	240.45	Perennial	Intermediate	WWH	AWS and IWS	Partial/Total	25	Dry Cut
E14-176-S1	Trib to Paint Creek	240.75	Intermittent	Minor	WWH	AWS and IWS	Partial/Total	7	Bore
AS-WA-49	Trib to Bradshaw Drain	241.37	Ephemeral	Intermediate	WWH	AWS and IWS	Partial/Total	12	Wet Cut
AS-WA-46 Trib	b to North Branch Swan Creek	242.61	Intermittent	Minor	WWH	AWS and IWS	Partial/Total	9	Dry Cut
AS-WA-11	Huron River	245.03	Perennial	Major	WWH	AWS and IWS	Partial/Total	160	HDD
AS-WA-15	Trib to Willow Run	248.13	Ephemeral	Minor	WWH	AWS and IWS	Partial/Total	7	Dry Cut
AS-WA-16C	Trib to Willow Run	248.63	Ephemeral	Minor	WWH	AWS and IWS	Partial/Total	5	Dry Cut
AS-WA-16B	Trib to Willow Run	248.63	Ephemeral	Minor	WWH	AWS and IWS	Partial/Total	5	N/A
AS-WA-16B	Trib to Willow Run	248.64	Ephemeral	Minor	WWH	AWS and IWS	Partial/Total	5	N/A
AS-WA-16A	Trib to Willow Run	248.82	Ephemeral	Minor	WWH	AWS and IWS	Partial/Total	5	Dry Cut
AS-WA-17	Trib to Willow Run	248.83	Ephemeral	Minor	WWH	AWS and IWS	Partial/Total	5	Dry Cut
AS-WA-18 Ohio Ohio River Basin	Trib to Sines Drain	249.03	Ephemeral	Minor	WWH	AWS and IWS	Partial/Total	5	N/A



				TABLE 2.3-2					
			Waterbodies	Crossed by NEX	JS Project				
State, Drainage Basin, County, Waterbody ID	Waterbody Name	Milepost b/	Flow TYPE c/	FERC Classification d/	State Water Quality Classification e/	State Water Supply Classification f/	State Recreation Classification g/	Waterbody Width (feet) h/	Proposed Construction Method i/
Columbiana County									
Interconnecting Pipeline AS-CO-4A	to TGP Trib. to Brush Creek	0.9		Mnor	WWH	AWS and IWS	Primary Contact B	2	Wet Cut

- a/ Identifies State and County where the stream is located, Drainage Area where stream is located and Project waterbody identifier.
- b/ Waterbody crossing reference by nearest NEXUS pipeline milepost.
- c/ Flow types were identified in the field based on flow relative to time/duration terminology from USGS Hydrologic Definitions.

Perennial – streams that flow continuously.

Intermittent – streams which flow only at certain times of the year when it receives water from springs or from some surface source such as melting snow in mountainous areas. Ephemeral – streams that flow only in direct response to precipitation, and whose channel is at all times above the water table.

- d/ FERC stream classification are based on FERC's "Procedures" definition of minor, intermediate and major waterbodies. Minor = waterbodies less than or equal to 10 feet wide; Intermediate = waterbodies greater than 10 feet wide but less than or equal to 100 feet wide; Major = greater than 100 feet wide.
- e/ Aquatic Life Habitat designation types that area crossed by the NEXUS Project are defined below:

State Of Ohio - Water Use Quality Designations for Aquatic Life Habitat.

WWH - "Warmwater" - these are waters capable of supporting and maintaining a balanced, integrated, adaptive community of warmwater aquatic organisms having a species composition, diversity, and functional organization comparable to the twenty-fifth percentile of the identified reference sites within each of the following ecoregions: the interior plateau ecoregion, the Erie/Ontario lake plains ecoregion, the western Allegheny plateau ecoregion and the eastern corn belt plains ecoregion. For the Huron/Erie lake plains ecoregion, the comparable species composition, diversity and functional organization are based upon the ninetieth percentile of all sites within the region. For all ecoregions, the attributes of species composition, diversity and functional organization will be measured using the index of biotic integrity, the modified index of well-being and the invertebrate community index as defined in "Biological Criteria for the Protection of Aquatic Life: Volume II, User's Manual for Biological Field Assessment of Ohio Surface Waters," as cited in paragraph (B) of rule 3745-1-03 of the Administrative Code. In addition to those water body segments designated in rules 3745-1-08 to 3745-1-32 of the Administrative Code, all upground storage reservoirs are designated warmwater habitats. Attainment of this use designation (except for upground storage reservoirs) is based on the criteria in table 7-15 of this rule. A temporary variance to the criteria associated with this use designation may be granted as described in paragraph (F) of rule 3745-1-01 of the Administrative Code.

MWH – Modified Warmwater Habitat" – applies to extensively modified habitats that are capable of supporting the semblance of a warmwater biological community, but fall short of attaining WWH because of functional and structural deficiencies due primarily to altered macrohabitats.

State of Michigan - Water Use Quality Designations for Aquatic Life Habitat:

WWH - Warmwater habitat qualifies as a mean water temperature >70 degrees Fahrenheit in July

- ff State Of Ohio Water Use Quality Designations Water Supply. Only Water Supply designation types that are crossed by the NEXUS Project are defined below:
 - AWS "Agricultural" these are waters suitable for irrigation and livestock watering without treatment.
 - IWS "Industrial" these are waters suitable for commercial and industrial uses, with or without treatment. Criteria for the support of the industrial water supply use designation will vary with the type of industry involved.
- g/ Ohio These Ohio use designations are in effect only during the recreation season, which is the period from May 1 to October 31. Primary Contact Classes A, B, and secondary contact recreational uses are crossed by the NEXUS Project. Primary Contact are waters that, during the recreation season, are suitable for one or more full-body contact recreation activities such as, but not limited to, wading, swimming, boating, water skiing, canoeing, kayaking, and scuba diving. Three classes of Primary Contact Recreation use are defined to reflect differences in the observed and potential frequency and intensity of usage. State recreation classifications are are identified in rules 3745-1-08 to 3745-1-30 of the Administrative Code and defined below:
 Primary Contact A. These are waters that support, or potentially support, frequent primary contact recreation activities. The following water bodies are designated as class A Primary Contact Recreation waters. The streams and rivers listed in table 7-16 of this rule 3745-1-07 are popular paddling streams with public access points developed, maintained, and publicized by governmental entities.



TABLE 2.3-2 Waterbodies Crossed by NEXUS Project

State, Drainage Basin, County, Waterbody ID	Waterbody Name	Milepost b/	Flow TYPE c/	FERC Classification d/	State Water Quality Classification e/	State Water Supply Classification	State Recreation Classification g/	Waterbody Width (feet) h/	Proposed Construction Method i/
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Primary Contact B. These are waters that support, or potentially support, occasional Primary Contact Recreation activities. All surface waters of the state are designated as class B Primary Contact Recreation unless otherwise designated as bathing waters, Class A Primary Contact Recreation, Class C Primary Contact Recreation or Secondary Contact Recreation. Secondary Contact. These are waters that result in minimal exposure potential to water borne pathogens because the waters are: rarely used for water based recreation such as, but not limited to, wading; situated in remote, sparsely populated areas; have restricted access points; and have insufficient depth to provide full body immersion, thereby greatly limiting the potential for water based recreation activities.

Michigan - At a minimum, all surface waters in Michigan are designated and protected by MIDEQ for the partial body contact recreation and total body contact recreation designations. Partial body contact recreation is designated throughout the year and total body recreation is designated from May 1 through October 1. Most designations have two or more types of assessment that may be used to determine support. These types of assessment include biological, physical/chemical, toxicological, pathogen indicators, other public health indicators and other aquatic health indicators.

Partial Body Contact - These are waters that support, or potentially support, occasional Partial Body Contact Recreation activities. Partial body recreation activities include paddling, canoeing, kayaking, etc. and are protected in all surface waters year round in Michigan.

Total Body Contact - These are waters that support, or potentially support, occasional Total Body Contact Recreation activities. Total body contact recreation activities include activities such as swimming, and all surface waters in Michigan are protected from May 1 through October 1 for such activities.

h/ Waterbody widths were estimated based on the average width located within NEXUS Project study corridor.

i/ NEXUS is proposing to utilize wet open cut, dry crossing, conventional bore, and HDD crossing methods. See section 2.3.9 of Resource Report 2 for descriptions of each crossing method type. Waterbodies that are located within the construction workspace but will not be crossed by the pipeline are listed as N/A (not applicable).



Summary o	TABLE 2.3-3 of Waterbodies Crossed by	NEXUS Project HDDs
State, Facility, Waterbody ID	Milepost	Waterbody Name
Ohio		
<u>Mainline</u>		
AS-SU-37	46.0	Tuscarawas River
AS-SU-38	46.1	Trib to Tuscarawas River
A14-50-S1	83.3	East Branch Black River
AS-LO-21	88.8	Trib to West Branch Black River
AS-LO-20	89.0	West Branch Black River
A14-197-S2/AS-ER-100-S2	100.3	Trib to Vermillion River
AS-ER-100-S1	100.4	Vermillion River
AS-ER-100-S3	100.4	Trib to Vermillion River
A14-186-S1/AS-ER-19	112.9	Huron River
AS-ER-20A	113.0	Trib to Huron River
AS-ER-20	113.1	Trib to Huron River
E14-31-S1/AS-SA-5	141.3	Sandusky River
AS-SA-6	141.5	Trib to Sandusky River
AS-SA-75	157.4	Portage River
AS-LU-1	176.1	Maumee River
AS-LU-1A	176.4	Maumee River
Michigan		
<u>Mainline</u>		
E15-157-S1	231.9	Saline River
AS-WA-11	245.0	Huron River

		TABLE 2.3-4								
Surface Water Intakes										
State, Facility County Nearest MP Municipality Waterbody Intake										
Ohio										
Interconnecting Pipeline to TGP										
None										
<u>Mainline</u>										
Lorain	89.0	Oberlin Water Department	West Branch Black River Reservoir							
Fulton	191.5	Swanton Village	Swan Creek and Reservoir							
Michigan										
<u>Mainline</u>										
Lenawee	210.1	Blissfield	River Raisin							



TABLE 2.3-5
Surface Public Water Supply Protection Area Crossed by the NEXUS Project

Facility	State	County	Milepost Begin	Milepost End	Source	Municipality, County
<u>Mainline</u>						
						Cincinnati, Hamilton
						East Liverpool, Columbiana
	ОН	Columbiana-	0.0	69.6	Ohio River	Ironton, Lawrence
	011	Medina	0.0	00.0	Offic Priver	Portsmouth, Scioto
						Steubenville, Jefferson
						Toronto, Jefferson
	ОН	Lorain	87.8	91.3	West Branch of Black River Reservoir	Oberlin, Lorain
	ОН	Fulton	188.4	192.4	Swanton Reservoir	Swanton, Fulton
Interconnecting Pipeline to TGP						
i ipeline to TOI						Cincinnati, Hamilton
						East Liverpool, Columbiana
	011	O a bossa bida sa a	0.0	0.0	Ohio Disas	Ironton, Lawrence
	ОН	Columbiana	0.0	0.9	Ohio River	Portsmouth, Scioto
						Steubenville, Jefferson
						Toronto, Jefferson
<u>Aboveground</u>						
						Cincinnati, Hamilton
						East Liverpool, Columbiana
NEXUS/TGP M&R	ОН	Columbiana	0.0	0.1	Ohio River	Ironton, Lawrence
Station						Portsmouth, Scioto
						Steubenville, Jefferson
						Toronto, Jefferson
						Cincinnati, Hamilton
						East Liverpool, Columbiana
NEXUS/Kensington	ОН	Columbiana	0.0	0.6	Ohio River	Ironton, Lawrence
M&R Station	OH	Columbiana	0.0	0.0	Offic River	Portsmouth, Scioto
						Steubenville, Jefferson
						Toronto, Jefferson
						Cincinnati, Hamilton
CS1	ОН	Columbiana	1.3	1.5	Ohio River	Ironton, Lawrence
						Portsmouth, Scioto
						Cincinnati, Hamilton
CS2	ОН	Medina	60.3	60.5	Ohio River	Ironton, Lawrence
						Portsmouth, Scioto



			TABL	E 2.3-5					
Surface Public Water Supply Protection Area Crossed by the NEXUS Project									
Facility	State	County	Milepost Begin	Milepost End	Source	Municipality, County			
oe Yards and Co	ntractor Ware `	<u>Yards</u>							
						Cincinnati, Hamilton			
Yard 1-1	ОН	Stark	22.5	23.0	Ohio River	Ironton, Lawrence			
						Portsmouth, Scioto			

			Table 2.3-6			
	;	Sensitive W	ater Crossed by the NEXU	S Project Pipeline	Facilities	
State, Facility	County	MP	Waterbody ID a/	Waterbody Name	NRI ORV b/	State Designation c/
Ohio						
<u>Mainline</u>						
	Summit	46.01	AS-SU-37*	Tuscarawas River	S, R, H	N/A
	Erie	100.40	AS-ER-100-S1	Vermillion River	R, G, W	OSW-E
	Erie	112.85	A14-186-S1/AS-ER-19*	Huron River	N/A	SHQW
	Sandusky	141.28	E14-31-S1*	Sandusky River	R, H	N/A
	Lucas	176.12	AS-LU-1/ AS-LU-1A*	Maumee River	N/A	OSW-R
Interconnecting F	<u>Pipeline</u>					
to TGP	Columbiana	N/A	N/A	N/A	N/A	N/A

a/*: Indicates the waterbodies that are under USACE Section 10 of the Rivers and Harbors Act and designated as Navigable waters. b/ NRI ORV Definitions

Scenery (S): The landscape elements of landform, vegetation, water, color, and related factors result in notable or exemplary visual features and/or attractions. When analyzing scenic values, additional factors -- such as seasonal variations in vegetation, scale of cultural modifications, and the length of time negative intrusions are viewed -- may be considered. Scenery and visual attractions may be highly diverse over the majority of the river or river segment.

<u>Recreation (R):</u> Recreational opportunities are, or have the potential to be, popular enough to attract visitors from throughout or beyond the region of comparison or are unique or rare within the region. Visitors are willing to travel long distances to use the river resources for recreational purposes. River-related opportunities could include, but are not limited to, sightseeing, wildlife observation, camping, photography, hiking, fishing and boating.

Geology (G): The river, or the area within the river corridor, contains one or more example of a geologic feature, process or phenomenon that is unique or rare within the region of comparison. The feature(s) may be in an unusually active stage of development, represent a "textbook" example, and/or represent a unique or rare combination of geologic features (erosional, volcanic, glacial, or other geologic structures).

Wildlife (W): Wildlife values may be judged on the relative merits of either terrestrial or aquatic wildlife populations or habitat or a combination of these conditions.

History (H): The river or area within the river corridor contains a site(s) or feature(s) associated with a significant event, an important person, or a cultural activity of the past that was rare or one-of-a-kind in the region. Many such sites are listed on the National Register of Historic Places. A historic site(s) and/or features(s) is 50 years old or older in most cases.

b/ State Designations are based on the OEPA Antidegradation Rule definitions.

SHQW: Surface waters that possess exceptional ecological values.

OSW-E: Waters that have special significance for the state because of their exceptional ecological values.

OSW-R: Waters that have special significance for the state because exceptional recreational values.



TABLE 2.3-7 Impaired Surface Waters Crossed by NEXUS Project

State, Drainage Basin, County, Waterbody I.D. a/	Waterbody Name	Milepost b/	Beneficial Use Impaired c/
Dhio			
Mainline			
Dhio River Drainage Basin			
Columbiana			
			Human Health
A14-5-S1	Sandy Creek	1.85	Recreation
			Aquatic Health
			Human Health
A14-8-S1	Trib to Sandy Creek	3.8	Recreation
			Aquatic Health
			Human Health
A14-10-S1	Conser Run	4.78	Recreation
			Aquatic Health
A44.40.C4	Trib to Consen Dun	0.04	Human Health
A14-12-S1	Trib to Conser Run	6.31	Recreation
			Aquatic Health Recreation
AS-CO-7	Trib to Manhoning River	7.72	Aquatic Health
			Human Health
A14-196-S1	Trib to Middle Branch Sandy Creek	9.58	Recreation
			Human Health
AS-CO-11	Middle Branch Sandy Creek	10.75	Recreation
A44 405 00	Table to MAL a diament to the	44.04	Human Health
A14-165-S2	Trib to Woodland Lake	11.94	Recreation
tark			
AS-ST-7	Beech Creek	16.66	Recreation
A3-31-7	beech Creek	10.00	Aquatic Health
A14-23-S1	Trib to Beech Creek	18.9	Recreation
A14 20 01	This to Decen Oreck	10.5	Aquatic Health
A14-176-S1	Trib to Beech Creek	20.04	Recreation
711117001	This to Booth Grook	20.01	Aquatic Health
A14-176-S1	Trib to Beech Creek	20.09	Recreation
			Aquatic Health
A44.05.04	Middle Book to Nicelatilla Const	04.00	Human Health
A14-25-S1	Middle Branch Nimishillen Creek	21.32	Recreation
			Aquatic Health
A14-175-S1	Trib to Middle Branch Nimishillen Creek	22.04	Human Health Recreation
A14-1/0-01	The to Middle Branch Millishillen Creek	22.04	Aquatic Health
A14-161-S1	Trib to Middle Branch Nimishillen Creek	23.87	Human Health



TABLE 2.3-7
Impaired Surface Waters Crossed by NEXUS Project

State, Drainage Basin, County, Waterbody I.D. a/	Waterbody Name	Milepost b/	Beneficial Use Impaired c/
			Recreation
			Aquatic Health
			Human Health
A14-99-S1	Middle Branch Nimishillen Creek	26.07	Recreation
			Aquatic Health
	0		Human Health
A14-97-S1	Swartz Ditch	26.53	Recreation
			Aquatic Health
			Human Health
AS-ST-17	Trib to Nimishillen Creek	28.9	Recreation
			Aquatic Health
			Human Health
A14-158-S1	Trib to Nimishillen Creek	30.06	Recreation
			Aquatic Health
			Human Health
A14-164-S2	West Branch Nimishillen Creek	31.06	Recreation
			Aquatic Health
mmit			
AS-SU-5			Human Health
	Trib to Tuscarawas River	34.38	Recreation
			Aquatic Health
AS-SU-43	Trib to Willowdale Lake	35.38	Recreation
7.0 00 10	This to Willowadio Earto	23.33	Aquatic Health
AS-SU-9	Trib to Nimisila Reservoir	36.13	Recreation
710 00 0			Aquatic Health
AS-SU-10	Trib to Nimisila Reservoir	36.42	Recreation
7.0 00 10			Aquatic Health
A14-166-S1	Trib to Nimisila Reservoir	36.72	Recreation
			Aquatic Health
A14-112-S1	Trib to Nimisila Reservoir	37.15	Recreation
			Aquatic Health
A14-112-S1-a	Trib to Nimisila Reservoir	37.54	Recreation
AITTIZOTA	This to Milliona Reservoir	37.54	Aquatic Health
A14-112-S1-b	Trib to Nimisila Reservoir	37.73	Recreation
A14-112-01-0	THE TO MITHISHA INCOCTACH	31.13	Aquatic Health
AS-SU-13A	Trib to Nimisila Reservoir	38.05	Recreation
A5-5U-13A			Aquatic Health
AS-SU-15	Trib to Nimisila Reservoir	38.76	Recreation
			Aquatic Health
AC CH 17	Nimisila Creek	39.66	Human Health
AS-SU-17	Nimisila Creek	39.00	Recreation



TABLE 2.3-7
Impaired Surface Waters Crossed by NEXUS Project

State, Drainage Basin, County, Waterbody I.D. a/	Waterbody Name	Milepost b/	Beneficial Use Impaired c/
AS-SU-23	Trib to Nimisila Creek	42.08	Human Health
	This to Milliona Grook	12.00	Recreation
	- U		Human Health
AS-SU-32	Trib to Tuscarawas River	44.71	Recreation
			Aquatic Health
			Human Health
AS-SU-37	Tuscarawas River	46.01	Recreation
			Aquatic Health
			Human Health
AS-SU-40	Pancake Creek	46.77	Recreation
			Aquatic Health
Vayne			
			Human Health
A14-124-S1	Silver Creek	50.32	Recreation
-			Aquatic Health
			Human Health
AS-WE-17	Mill Creek	53.01	Recreation
			Aquatic Health
Medina			
			Human Health
AS-ME-6/A14-43-S1	Styx River	55.06	Recreation
	•		Aquatic Health
			Human Health
AS-ME-14	Trib to Styx River	56.86	Recreation
	•		Aquatic Health
			Human Health
A14-39-S1	Tommy Run	57.73	Recreation
	·		Aquatic Health
			Human Health
A14-116-S2	Trib to Hubbard Creek	62.25	Recreation
			Aquatic Health
			Human Health
B14-4-S1	Hubbard Creek	63.16	Recreation
			Aquatic Health
			Human Health
AS-ME-34	Trib to Chippewa Creek	65.08	Recreation
	• •		Aquatic Health
			Human Health
AS-ME-37A	Trib to McCabe Creek	65.7	Recreation
			Aquatic Health
AS-ME-37	McCabe Creek	65.79	Human Health

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TABLE 2.3-7
Impaired Surface Waters Crossed by NEXUS Project

State, Drainage Basin, County, Waterbody I.D. a/	Waterbody Name	Milepost b/	Beneficial Use Impaired C/
			Recreation
			Aquatic Health
			Human Health
AS-ME-41A	Trib to The Inlet	66.85	Recreation
			Aquatic Health
			Human Health
AS-ME-46	The Inlet	67.81	Recreation
			Aquatic Health
			Human Health
AS-ME-48	Trib to the Inlet	68.12	Recreation
			Aquatic Health
ake Erie Drainage Basin			
			Human Health
A14-46-S1	Trib to The Inlet	68.35	Recreation
			Aquatic Health
AS-ME-53	Mallet Creek	69.91	Human Health
			Aquatic Health
			Human Health
AS-ME-53	Mallet Creek	70.34	Aquatic Health
			Human Health
AS-ME-58B	Trib to Mallet Creek	70.94	Aquatic Health
			Human Health
AS-ME-64	Trib to Mallet Creek	72.52	Aguatic Health
			Human Health
AS-ME-73	Mallet Creek	73.9	Aquatic Health
			Human Health
AS-ME-75	Trib to Mallet Creek	74.43	Aquatic Health
			Recreation
AS-ME-96	Trib to West Branch Rocky River	75.61	Aquatic Health
			Human Health
AS-LO-1	Trib to East Branch Black River	77.05	Recreation
	This to East Station Black (190)	77.00	Aquatic Health
			Human Health
AS-LO-1	Trib to East Branch Black River	77.16	Recreation
	The to East Brailer Black NIVE	77.10	Aquatic Health
prain			·
			Human Health
AS-LO-1	Trib to East Branch Black River	77.23	Recreation
710 20 1	to East Branen Black (1770)	20	Aquatic Health



TABLE 2.3-7
Impaired Surface Waters Crossed by NEXUS Project

State, Drainage Basin, County, Waterbody I.D. a/	Waterbody Name	Milepost b/	Beneficial Use Impaired of
			Human Health
AS-LO-1	Trib to East Branch Black River	77.25	Recreation
			Aquatic Health
			Human Health
A14-56-S1	Trib to East Branch Black River	78.17	Recreation
			Aquatic Health
			Human Health
AS-LO-48	Salt Creek	80.97	Recreation
			Aquatic Health
			Human Health
AS-LO-10	Trib to East Branch Black River	82.44	Recreation
			Aquatic Health
			Human Health
AS-LO-10	Trib to East Branch Black River	82.55	Recreation
			Aquatic Health
=			Human Health
A14-5-S1	East Branch Black River	83.33	Recreation
			Aquatic Health
			Human Health
A14-55-S1	Trib to West Branch Black River	83.92	Recreation
			Aquatic Health
			Human Health
A14-73-S1	King Ditch	85.23	Recreation
			Aquatic Health
			Human Health
A14-76-S1	Kelner Ditch	86.82	Recreation
			Aquatic Health
1010.4	- " •		Human Health
AS-LO-17	Elk Creek	87.93	Recreation
			Aquatic Health
AS-LO-19	Wellington Creek	88.37	Recreation
	3.1		Aquatic Health
401004	Tells to West Describ Disch D'	00.04	Human Health
AS-LO-21	Trib to West Branch Black River	88.84	Recreation
			Aquatic Health
40.10.00	Mart Branch Black Bires	00.00	Human Health
AS-LO-20	West Branch Black River	88.96	Recreation
			Aquatic Health
40.10.00	Tells to Moral Day 1 Di 1 Di	00.10	Human Health
AS-LO-22	Trib to West Branch Black River	89.18	Recreation
	DI O	00.00	Aquatic Health
A14-141-S1	Plum Creek	92.67	Human Health



TABLE 2.3-7
Impaired Surface Waters Crossed by NEXUS Project

State, Drainage Basin, County, Waterbody I.I	D. a/ Waterbody Name	Milepost b/	Beneficial Use Impaired c/
A14-148-S1	East Fork Vermillion River	98.07	Recreation Aquatic Health Human Health Aquatic Health
rie			
AS-ER-10-S1	Vermillion River	100.4	Human Health Aquatic Health
AS-ER-49	Trib to Chappel Creek	101.89	Aquatic Health
A14-187-S1	Old Woman Creek	109.12	Recreation Aquatic Health
AS-ER-12	Trib to Old Women Creek	109.82	Recreation Aquatic Health
A14-186-S1/AS-ER-19	Huron River	112.85	Recreation Aquatic Health
E14-97-S1	Mud Brook	114.88	Recreation Aquatic Health
AS-ER-25	Zorn Beutal Ditch	116.01	Recreation
AS-ER-51	Sherer Ditch	116.21	Recreation
AS-ER-52	Sherer Ditch	116.73	Recreation
AS-ER-26	Trib to Sherer Ditch	117.81	Recreation
AS-ER-28	Trib to Pipe Creek	119.77	Recreation Aquatic Health
AS-ER-38	Trib to Pipe Creek	121.45	Recreation Aquatic Health
E14-95-S1	Pipe Creek	121.6	Recreation Aquatic Health
E14-51-S1	Caswell Ditch	123.8	Recreation Aquatic Health
E14-94-S1	Mills Creek	124.88	Recreation Aquatic Health
Sandusky			
D14-1-S1	Scherz Ditch	129.98	Recreation
D14-4-S1	Strong Creek	130.98	Recreation
	-		Recreation
D14-6-S1	Fuller Creek	131.68	Aquatic Health
D14-7-S1	Trib to Fuller Creek	132.05	Recreation Aguatic Health
AS-SA-1	Trib to Fuller Creek	132.6	Recreation Aquatic Health
E14-105-S1	Pickerel Creek	133.6	Recreation Aquatic Health



TABLE 2.3-7
Impaired Surface Waters Crossed by NEXUS Project

State, Drainage Basin, County, Waterbody I.D. a/	Waterbody Name	Milepost b/	Beneficial Use Impaired
D14-9-S1	Little Raccoon Creek	134.24	Recreation
			Aquatic Health
D14-8-S1	Raccoon Creek	135.47	Recreation Aquatic Health
			Recreation
E14-103-S1	South Creek	136.14	Aguatic Health
10.01	T11 (0 (1 0)	100 74	Recreation
AS-SA-4	Trib to South Creek	136.71	Aquatic Health
AS-SA-78	Green Creek	137.24	Recreation
A3-3A-10	Green Creek	137.24	Aquatic Health
D14-4-S1	Bark Creek	139.27	Recreation
514401	Balk Greek	100.27	Aquatic Health
E14-31-S1	Sandusky River	141.28	Recreation
214 01 01	danadaky kiver	141.20	Aquatic Health
AS-SA-82	Little Muddy Creek	144.3	Recreation
110 011 02	_maday cross		Aquatic Health
- 1.4.40.04			Human Health
E14-43-S1	Muddy Creek	148.3	Recreation
			Aquatic Health
E14-42-S1	Nime maile Console	450.40	Human Health
E14-42-51	Ninemile Creek	150.13	Recreation Aquatic Health
			Human Health
E14-3-S1	Trib to Ninemile Creek	150.87	Recreation
£14-3-01	This to Minerille Creek	130.07	Aquatic Health
			Human Health
AS-SA-14	Wolf Creek	152.75	Recreation
AC CATT	Woll Glook	102.70	Aguatic Health
			Human Health
D14-25-S1	Sugar Creek	153.55	Recreation
	Ç		Aquatic Health
			Human Health
AS-SA-15	Trib to Victoria Creek	155.71	Recreation
			Aquatic Health
			Human Health
E14-108-S1	Victoria Creek	156.22	Recreation
			Aquatic Health
	5 . 5 !		Human Health
AS-SA-75	Portage River	157.42	Recreation
			Aquatic Health
AS-SA-16	Trib to Portage River	158	Human Health
	•		Recreation



TABLE 2.3-7
Impaired Surface Waters Crossed by NEXUS Project

State, Drainage Basin, County, Waterbody I.D. a/	Waterbody Name	Milepost b/	Beneficial Use Impaired c/
to d			Aquatic Health
Vood			Llean and Lleanth
F44.444.04	Marita Ditali	450.74	Human Health
E14-111-S1	Martin Ditch	158.74	Recreation
			Aquatic Health
D14-31-S1	Trib to Martin Ditch	150.50	Human Health Recreation
D14-31-31	This to Martin Ditch	159.59	
			Aquatic Health Human Health
E44.0F.C4	Trib to Toussaint Creek	160.46	Recreation
E14-85-S1	This to Toussaint Creek	160.46	
			Aquatic Health Human Health
A C 10/O 4 4	Trib to Toursaint Coast	404.04	
AS-WO-14	Trib to Toussaint Creek	161.64	Recreation
			Aquatic Health
E14-175-S1	Toussaint Creek	162.19	Human Health Recreation
E14-175-51	Toussaint Creek	102.19	
			Aquatic Health Human Health
AS-WO-1	Trib to Toussaint Creek	163.07	Recreation
A5-WO-1	This to Toussaint Creek	163.07	
			Aquatic Health Human Health
E14-79-S1	Trib to Packer Creek	165.29	
			Aquatic Health
E14-8-S1	Trib to Packer Creek	165.67	Human Health
			Aquatic Health Human Health
E14-4-S1	Packer Creek	165.98	
			Aquatic Health
AS-WO-5	Trib to Packer Creek	167.43	Human Health
			Aquatic Health Recreation
AS-WO-6	Trib to Packer Creek	168.81	
			Aquatic Health Recreation
E14-35-S1	Trib to Cedar Creek	169.33	
AC WO 9	Trib to Codor Crook	172.02	Aquatic Health
AS-WO-8	Trib to Cedar Creek Trib to Maumee River	172.03	Recreation Recreation
D14-45A-S1	Trib to Maumee River	172.79	Recreation
cas			
			Human Health
E14-116-S1	Blystone Ditch	177.24	Recreation
	, ,		Aguatic Health
	51.1		Recreation
AS-LU-4	Disher Ditch	178.78	Aquatic Health
AS-LU-5	Harris Ditch	179.95	Recreation



TABLE 2.3-7
Impaired Surface Waters Crossed by NEXUS Project

State, Drainage Basin, County, Waterbody I.D. a/	Waterbody Name	Milepost b/	Beneficial Use Impaired c/
E14-22-S1	Trib to Blue Creek	181.27	Aquatic Health Recreation Aquatic Health
Fulton			
AS-FU-55	Blue Creek	185.6	Recreation
AS-FU-55A	Trib to Blue Creek	185.73	Recreation
AS-FU-57	Trib to Blue Creek	186.97	Recreation
AS-FU-61	Trib to Blue Creek	187.88	Recreation
AS-FU-59	Trib to Swan Creek	188.54	Recreation Aquatic Health
AS-FU-60	Trib to Swan Creek	189.66	Recreation Aquatic Health
AS-FU-61	Fewless Creek	189.92	Recreation Aquatic Health
AS-FU-63	Swan Creek	191.03	Recreation Aquatic Health
AS-FU-66	Trib to Swan Creek	192.14	Recreation Aquatic Health
AS-FU-67	Trib to Ai Creek	192.49	Recreation Aquatic Health
AS-FU-68	Trib to Ai Creek	193.28	Recreation Aquatic Health
E14-4-S1	Ai Creek	195.42	Recreation Aquatic Health
AS-FU-20	Frankfort Ditch	196.76	Recreation Aquatic Health
E14-112-S1	Trib to McNett Ditch	198.06	Recreation Aquatic Health
D14-44-S1	Trib to Langenderfer Ditch	198.39	Human Health Recreation
D14-44-S1	Trib to Langenderfer Ditch	198.51	Human Health Recreation
D14-44-S1	Trib to Langenderfer Ditch	198.56	Human Health Recreation
AS-FU-50	Trib to Schmitz Ditch	200.72	Human Health Recreation
D14-45-S1	Tenmile Creek	202.37	Aquatic Health Human Health Recreation Aquatic Health



TABLE 2.3-7
Impaired Surface Waters Crossed by NEXUS Project

State, Drainage Basin, County, Waterbody I.D. a/	Waterbody Name	Milepost b/	Beneficial Use Impaired	
Michigan				
Lenawee				
AS-LE-3/E14-140-S1	River Raisin	209.77	Fish Consumption	
AS-LE-5	Trib to River Raisin	210.67	Fish Consumption	
E14-143-S1	Little River Raisin	214.85	Fish Consumption	
E14-64-S1	Fry Drain	215.07	Fish Consumption	
E14-69-S1	Isley Drain	216.41	Fish Consumption	
E14-76-S1	Swamp Ŕaisin Creek	216.85	Fish Consumption	
E14-147-S1	Dibble Drain	220.35	Fish Consumption	
E14-127-S1	South Branch Macon Creek	220.75	Fish Consumption	
E14-74-S1	Schreeder Brook	221.15	Fish Consumption	
E14-149-S1/AS-LE-12	Trib to Middle Branch Macon Creek	223.11	Fish Consumption	
E14-87-S1	Massa Casali	222.00	Fish Consumption	
E14-87-51	Macon Creek	223.86	Aquatic Life and Wildlife	
E14-61-S1	Trib to Macon Creek	224.14	Fish Consumption	
Monroe				
E14-63-S1	Trib to Richardson Drain	225.03	Fish Consumption	
AS-MO-1	Richardson Drain	225.74	Fish Consumption	
E14-65-S1	Bear Swamp Creek	226.22	Fish Consumption	
E14-66-S1	Trib to Bear Swamp Creek	226.71	Fish Consumption	
AS-MO-11	Cone Drain	227.6	Fish Consumption	
AS-MO-10	Center Creek	228.71	Fish Consumption	
AS-MO-4	North Branch Macon Creek	230.29	Fish Consumption	
Vashtenaw				
E14-157-S1	Saline River	231.88	Fish Consumption	
E14-161-S1	Trib to McCarthy Drain	237.94	Aquatic Life and Wildlife	
E14-135-S1	McCarthy Drain	238.41	Aquatic Life and Wildlife	
E14-162-S1	West Branch Paint Creek	239	Aquatic Life and Wildlife	
AS-WA-5	Bird Drain	239.55	Aquatic Life and Wildlife	
AS-WA-6/E14-164-S1	Paint Creek	240.45	Aquatic Life and Wildlife	
E14-176-S1	Trib to Paint Creek	240.75	Aquatic Life and Wildlife	
AS-WA-11	Huron River	245.03	Fish Consumption	
Interconnecting Pipeline to TGP				
Ohio River Drainage Basin				
Columbiana				
N/A	N/A	N/A	N/A	



TABLE 2.3-7

Impaired Surface Waters Crossed by NEXUS Project

State, Drainage Basin, County, Waterbody I.D. a/

Waterbody Name

Milepost b/

Beneficial Use Impaired c/

c/Beneficial use impairment was identified by the 2014 Ohio Integrated Water Quality Monitoring Report and OEPA GIS data and the 2014 Michigan Integrated Water Quality Monitoring Report.

Human Health - Ohio -waterbodies with a weighted average fish tissue concentration of PCBs, mercury, DDT, chlordane, or hexachlorobenzene above the WQS-based fish tissue concentration is then assigned a corresponding score.

Recreation -Ohio - waterbodies with a seasonal geometric mean E.coli content based on samples from the recreation season within a calendar year exceeds the predetermined levels of acceptance.

Aquatic Life- Ohio - A biological community at an EWH, WWH, or MWH sampling site must achieve the relevant criteria for all three indices, or those available and/or applicable, in order to be in full attainment of the designated aquatic life use criteria. Partial attainment is determined if one criterion is not achieved while nonattainment results when all biological scores are less than the criteria or if poor or very poor index scores are measured in either fish or macroinvertebrate communities.

Aquatic Life/Wildlife and Fish Consumption -Michigan surface waters impacted by polychlorinated biphenyls (PCBs) and mercury do not support the other indigenous aquatic life and wildlife designated use and/or the fish consumption designated use.



CEMA Flood 7	TABLE 2.3-8	IEVUS Draine	
State, Facility, County	Milepost Enter	Milepost Exit a/	FEMA Flood Zone
Ohio			
<u>Mainline</u>			
Columbiana	1.76	1.83	Α
Columbiana	1.83	1.85	Α
Columbiana	1.86	1.90	Α
Columbiana	1.99	2.00	Α
Columbiana	2.02	2.07	Α
Columbiana	2.07	2.07	A
Columbiana	2.11	2.12	A
Columbiana	4.78	4.87	A
Columbiana	4.88	4.88	A
Columbiana	4.90	4.91	A
Columbiana	10.74	10.80	A
Stark	25.02	25.02	A
Stark	25.93	26.19	A
Stark	26.48	26.57	Α
Stark	31.05	31.05	AE
Stark	31.05	31.06	AE
Stark	31.06	31.06	AE
Stark	31.08	31.09	AE
Stark	31.09	31.10	AE
Stark	31.10	31.11	AE
Stark	31.18	31.20	AE
Stark	31.20	31.26	AE
Stark	31.31	31.31	AE
Stark	32.60	32.73	AE
Summit	39.68	39.68	Α
Summit	39.71	39.92	Α
Summit	45.91	45.96	AE
Summit	45.96	46.03	AE
Summit	46.75	46.82	Α
Wayne	50.32	50.33	Α
Medina	54.89	54.91	AE
Medina	54.97	55.04	AE
Medina	55.04	55.11	AE
Medina	55.11	55.28	AE
Medina	57.70	57.72	AE
Medina	57.72	57.74	AE
Medina	57.74	57.74	AE
Medina	65.77	65.79	A
Medina	67.80	67.81	AE
Medina	68.12	68.12	AE
Medina	68.35	68.36	A
Medina	73.87	73.88	AE
Medina	73.88	73.92	AE
Medina	73.92	73.95	AE
Lorain Lorain	80.94 83.02	81.02 83.35	A A



TABLE 2.3-8 FEMA Flood Zones Crossed by the NEXUS Project Milepost Enter Milepost **FEMA Flood Zone** State, Facility, County Exit a/ a/ 85.18 Lorain 85.20 Α 85.21 Lorain 85.37 Α Lorain 86.80 86.85 Α Lorain 87.92 87.94 Α 88.36 Α Lorain 88.43 Lorain 88.80 89.35 Α Lorain 92.63 92.66 ΑE Lorain 92.66 92.67 ΑE 92.67 92.67 ΑE Lorain 98.05 Lorain 98.11 Α Erie 100.37 100.43 Α Erie 100.37 100.43 Α Erie 101.79 101.91 Α Erie Α 101.79 101.91 Erie 109.12 109.22 Α Erie 109.12 109.22 Α Erie 109.30 109.31 Α Erie 109.30 109.31 Α Erie 109.81 109.87 Α Erie 109.81 109.87 Α Erie Α 110.23 110.26 Erie 110.23 110.26 Α Erie 111.36 111.37 Α Erie 111.37 Α 111.36 Erie 111.71 111.72 Α Erie 111.71 111.72 Α Erie 112.52 ΑE 112.48 Erie 112.48 112.52 ΑE Erie 112.70 ΑE 112.75 Erie 112.70 112.75 ΑE Erie 112.75 112.93 ΑE Erie 112.75 ΑE 112.93 Erie 112.93 ΑE 112.97 Erie 112.93 112.97 ΑE Erie 113.42 113.46 Α Erie 113.42 Α 113.46 Erie 114.34 114.37 Α Erie 114.34 114.37 Α Erie 114.70 114.74 Α Erie 114.70 114.74 Α Erie 114.83 114.89 Α Erie 114.83 114.89 Α Erie 121.45 121.47 Α Erie Α 121.45 121.47 Erie 121.58 121.65 Α Erie 121.58 121.65 Α Erie 124.64 Α 125.00 Erie 124.64 125.00 Α Erie 125.01 125.06 Α

Erie

125.01

125.06

Α



TABLE 2.3-8 FEMA Flood Zones Crossed by the NEXUS Project										
State, Facility, County Milepost Enter Aliepost Exit a/ Bilepost										
Erie	127.15	127.15	А							
Sandusky	127.15	127.33	Α							
Sandusky	130.97	130.99	Α							
Sandusky	131.66	131.74	Α							
Sandusky	133.52	133.65	Α							
Sandusky	135.42	135.53	Α							
Sandusky	136.13	136.14	Α							

136.74

137.26

139.37

141.10

141.18

141.33

141.33

141.54

144.34

148.44

148.82

150.13

153.63

157.59

160.46

162.23

162.24

165.99

176.05

176.12

176.43

176.44

177.24

177.24

177.28

177.36

179.96

179.98

185.42

185.43

185.57

185.63

185.74

185.81

189.66

189.94

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141.00

141.12

141.18

141.33

141.42

144.28

148.29

148.81

150.11

153.51

157.40

160.46

162.13

162.23

165.98

176.04

176.05

176.14

176.43

177.24

177.24

177.24

177.35

179.92

179.97

185.42

185.43

185.44

185.57

185.73

185.80

189.66

189.90

189.94

190.54

190.96

191.02

191.06

195.41

195.45

Sandusky

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TABLE 2.3-8 FEMA Flood Zones Crossed by the NEXUS Project

State, Facility, County	Milepost Enter a/	Milepost Exit a/	FEMA Flood Zone b/	
Fulton	202.35	202.36	AE	
Fulton	202.36	202.37	AE	
Fulton	202.37	202.41	AE	
Michigan				
Monroe	225.03	225.03	Α	
Monroe	225.73	225.74	Α	
Monroe	226.22	226.23	Α	
Monroe	226.71	226.73	Α	
Monroe	227.54	227.68	Α	
Monroe	228.40	228.42	Α	
Monroe	228.70	228.74	Α	
Monroe	229.67	229.68	Α	
Monroe	230.26	230.35	Α	
Washtenaw	231.70	231.89	Α	
Washtenaw	238.40	238.42	Α	
Washtenaw	238.95	8.95 238.98		
Washtenaw	238.98	239.08	AE	
Washtenaw	239.08	239.16	AE	
Washtenaw	240.33	240.42	AE	
Washtenaw	240.42	240.50	AE	
Washtenaw	240.50	240.52	AE	
Washtenaw	244.96	244.97	AE	
Washtenaw	244.97	245.05	AE	
Washtenaw	245.05	245.05	AE	
Ohio				
Interconnecting Pipeline to TGP				
Columbiana				
Aboveground Facilities				
Pipe Yards and Contractor Ware Yards				
Yard 2-1	106.4		Α	
Yard 3-2	176.5		AE	

a/ Approximate enter and exit MP along the proposed pipeline centerline rounded to the nearest hundredth.

b/ Flood hazard areas identified on the Flood Insurance Rate Map are identified as a Special Flood Hazard Area (SFHA). SFHA are defined as the area that will be inundated by the flood event having a 1-percent chance of being equaled or exceeded in any given year. FEMA Flood Zone A: Areas subject to inundation by the 1-percent-annual-chance (100 year) flood event generally determined using approximate methodologies.

FEMA Flood Zone AE: Areas subject to inundation by the 1-percent-annual-chance (100 year). Flood event determined by detailed methods.



TABLE 2.3-9

Potential Hydrostatic Testing Water Sources for Project Pipeline Segments

State/Facility	Estimated Volume Uptake (gallons)	Potential Source(s)	Approximate Withdrawal Milepost	Withdrawal Watershed (HUC 8)	Approximate Discharge Milepost	Discharge Watershed (HUC 8)	Maximum Discharge Rate (gallons per minute)	Discharge (gallons)	Miles of Pipe in Fill Section	Miles of Pipe in Discharge Section	Comment
Ohio											
<u>Mainline</u>	11,028,075	Lake P'na	6.7	05030103	N/A	N/A	9,000	N/A	39.5	N/A	Spread 1 Fill taken from Lake P'na.
	N/A	N/A	N/A	N/A	0.0	05030101	9,000	1,870,590	N/A	6.7	Spread 1 Partial discharge of volume taken from Lake P'na.
	N/A	N/A	N/A	N/A	17.8	05030103	9,000	3,099,025	N/A	11.1	Spread 1 Partial discharge of volume taken from Lake P'na.
	N/A	N/A	N/A	N/A	31.0	05040001	9,000	3,509,840	N/A	13.2	Spread 1 Partial discharge of volume taken from Lake P'na.
	N/A	N/A	N/A	N/A	39.5	05040001	9,000	2,548,620	N/A	8.5	Spread 1 Balance of discharge of volume taken from Lake P'na.
	3,182,790	Comet Lake	39.5	05040001	50.9	05040001	9,000	3,182,790	11.4	11.4	Spread 1
	9,101,650	Silver Creek Lake	50.9	05040001	N/A	N/A	9,000	0	32.6	N/A	Spread 2 Fill taken from Silver Creek Lake
	N/A	N/A	N/A	N/A	59.4	05040001	9,000	2,548,620	N/A	8.5	Spread 2 Partial discharge of volume taken from Silver Creek Lake



TABLE 2.3-9

Potential Hydrostatic Testing Water Sources for Project Pipeline Segments

State/Facility	Estimated Volume Uptake (gallons)	Potential Source(s)	Approximate Withdrawal Milepost	Withdrawal Watershed (HUC 8)	Approximate Discharge Milepost	Discharge Watershed (HUC 8)	Maximum Discharge Rate (gallons per minute)	Discharge (gallons)	Miles of Pipe in Fill Section	Miles of Pipe in Discharge Section	Comment
	N/A	N/A	N/A	N/A	65.4	05040001	9,000	1,675,150	N/A	6.0	Spread 2 Partial discharge of volume taken from Silver Creek Lake
	N/A	N/A	N/A	N/A	83.5	04110001	9,000	4,877,880	N/A	18.1	Spread 2 Balance of discharge of volume taken from Silver Creek Lake
	1,647,230	Unnamed lake near Grafton, OH	83.5	04110001	89.4	04110001	9,000	1,647,230	5.9	5.9	Spread 2. Fill taken from Unnamed Lake near Grafton, OH
	6,533,080	Huron River	112.8	04100012	N/A	N/A	9,000	0	23.4	N/A	Spread 2 Fill taken from Huron River
	N/A	N/A	N/A	N/A	98.9	04100012	9,000	2,562,320	N/A	9.5	Spread 2 Partial discharge of volume taken from Huron River
	N/A	N/A	N/A	N/A	112.8	04100012	9,000	3,970,760	N/A	13.9	Spread 2 Partial discharge of volume taken from Huron River
	4,327,470	Huron River	112.8	04100012	128.3	04100011	9,000	4,327,470	15.5	15.5	Spread 2 Balance of discharge volume taken from Huron River
	3,545,730	Sandusky River	141.2	04100011	141.0	04100011	9,000	3,545,730	12.7	12.7	Spread 3. Fill taken from Sandusky River



TABLE 2.3-9

Potential Hydrostatic Testing Water Sources for Project Pipeline Segments

State/Facility	Estimated Volume Uptake (gallons)	Potential Source(s)	Approximate Withdrawal Milepost	Withdrawal Watershed (HUC 8)	Approximate Discharge Milepost	Discharge Watershed (HUC 8)	Maximum Discharge Rate (gallons per minute)	Discharge (gallons)	Miles of Pipe in Fill Section	Miles of Pipe in Discharge Section	Comment
	4,550,820	Sandusky River	141.2	04100011	141.0	04100011	9,000	4,550,820	16.3	16.3	Spread 3. Fill taken from Sandusky River
	5,192,960	Portage River	157.4	04100010	157.3	04100010	9,000	5,192,960	18.6	18.6	Spread 3. Fill taken from Portage River
	5,053,370	Maumee River	176.1	04100009	N/A	N/A	9,000	0	18.1	N/A	Spread 3 Fill taken from Maumee River
	2,456,890	City of Waterville	176.9	04100009	N/A	N/A	9,000	0	8.8	N/A	Spread 3 Fill taken from City of Waterville
	N/A	N/A	N/A	N/A	176.9	04100009	9,000	4,215,780	N/A	15.1	Spread 3. Partial discharge of volume taken from Maumee River and City of Waterville Spread 3. Balance
	N/A	N/A	N/A	N/A	191.0	04100009	9,000	3,294,480	N/A	11.8	of discharge of volume taken from Maumee River and City of Waterville
Interconnecting Pipeline to TGP	251,275	Lake P'na	6.7	05030103	0.0	05030101	9,000	251,275	0.9	0.9	Filled off Spread 1, Fill Taken from Lake P'na.
Ohio Subtotal	56,871,340							56,871,340	203.7	203.7	



TABLE 2.3-9 Potential Hydrostatic Testing Water Sources for Project Pipeline Segments

State/Facility	Estimated Volume Uptake (gallons)	Potential Source(s)	Approximate Withdrawal Milepost	Withdrawal Watershed (HUC 8)	Approximate Discharge Milepost	Discharge Watershed (HUC 8)	Maximum Discharge Rate (gallons per minute)	Discharge (gallons)	Miles of Pipe in Fill Section	Miles of Pipe in Discharge Section	Comment
Michigan											
<u>Mainline</u>	1,926,420	River Raisin	209.8	04100002	209.7	04100002	9,000	1,926,420	6.9	6.9	Spread 4. Fill taken from River Raisin
	3,601,570	River Raisin	209.8	04100002	209.7	04100002	9,000	3,601,570	12.9	12.9	Spread 4. Fill taken from River Raisin
	2,568,565	Saline River	231.8	04100002	231.8	04100002	9,000	2,568,565	9.2	9.2	Spread 4. Fill taken from Saline River
	2,736,080	Saline River	231.8	04100002	231.8	04100002	9,000	2,736,080	9.8	9.8	Spread 4. Fill taken from Saline River
	1,005,090	Huron River	245.2	04090005	245.2	04090005	9,000	1,005,090	3.6	3.6	Spread 4. Fill taken from Huron River
	1,060,928	Huron River	245.2	04090005	245.2	04090005	9,000	1,060,928	3.8	3.8	Spread 4. Fill taken from Huron River
Michigan Subtotal	12,898,653							12,898,653	46.2	46.2	
PROJECT TOTAL	69,769,993							69,769,993	249.9	249.9	

Notes:

N/A = Not Applicable
Test sections are filled concurrently and tested separately.



TABLE 2.3-10 Potential Sources of Hydrostatic Test Water for Project Aboveground Facilities

Facility	Estimated Volume (gallons) a/	Potential Source(s)	Discharge Location b/
Compressor Stations			
Compressor Station 1 - Hanoverton	124,600	City Water	1.2
Compressor Station 2 - Wadsworth	111,600	On Site Well	60.3
Compressor Station 3 - Clyde	114,440	On Site Well	129.5
Compressor Station 4 - Waterville	118,700	City Water	178.1
Meter Stations			
MR01	42,400	City Water	0.0
MR02	42,400	City Water	TGP 1.9
MR03	42,400	City Water	0.0
MR04	51,330	City Water	249.0
Aboveground Facilities Total	647,870		

a/ Volumes for Meter Stations do not include skid piping. This piping is tested during initial fabrication prior to arriving at the Project site. Testing as part of the Project installation is not anticipated. b/ Approximate milepost location provided.



TABLE 2.3-11 Potential Hydrostatic Test Water for the NEXUS Project HDDs **Maximum Estimated Volume (gallons)** Milepost of the HDD Exit **HDD State/Facility Water Source Hydrostatic Test HDD Operations** Water Ohio **Mainline** Tuscarawas RR and Tuscarawas River 46.2 221,000 1,500,000 River East Branch of Black River 83.5 155,300 750,000 Black River West Branch of Black River 181,800 750,000 Black River 89.0 Vermillion River 100.6 250,950 1,100,000 Vermillion River Huron River 113.2 256,300 1,625,000 Huron River Sandusky River 282,900 1,350,000 Sandusky River 141.6 Portage River 157.6 160,600 750,000 Portage River Maumee River 175.9 Maumee River 405,200 1,925,000 Michigan **Mainline**

165,900

224,400

160,600

1,400,000

2,000,000

750,000

Saline River

Huron River

City of Detroit

231.7

244.8

245.6

Saline River

Hydro Park

I-94



TABLE 2.3-12 Additional Temporary Workspace within 50 feet of Waterbodies for the NEXUS Project Pipeline Facilities **Distance** from Waterbody Milepost Milepost State/ Facility/ ATWS Name Resource **ATWS Justification** Start a/ End a/ Area (Feet) Ohio **Mainline** A14-5-S2 Road and Waterbody Crossing ATWS-0632 1.8 1.9 4 8 ATWS-0632 A14-5-S1 1.8 1.9 Road and Waterbody Crossing ATWS-0631 A14-5-S3 1.9 1.9 23 Road and Waterbody Crossing ATWS-1096 A14-5-S3 0 Road and Waterbody Crossing 2.1 2.1 ATWS-0603 A14-126-S1 5.5 5.5 29 Waterbody Crossing ATWS-0029 A14-125-S1 6.8 6.8 Road Crossing 11 ATWS-0026 AS-CO-9 7.9 Road and Waterbody Crossing 7.8 26 ATWS-1100 AS-CO-9 7.9 8 36 Road and Waterbody Crossing ATWS-0652 A14-196-S1 9.5 9.6 22 Waterbody Crossing ATWS-0653 A14-196-S1 9.6 9.6 18 Waterbody Crossing ATWS-1121 AS-CO-12 11.2 26 Road and Waterbody Crossing 11.3 ATWS-1877 AS-CO-12A Waterbody Crossing 11.4 11.5 23 ATWS-0729 A14-165-S1 11.9 11.9 10 Waterbody Crossing ATWS-0729 A14-165-S2 11.9 10 Waterbody Crossing 11.9 ATWS-0044 A14-105-S1 17.2 17.3 12 Waterbody Crossing ATWS-0043 A14-105-S1 17.3 17.3 49 Waterbody Crossing A14-103-S1 ATWS-1881 17.7 17.8 12 Waterbody Crossing ATWS-0648 7 A14-172-S3 19.5 19.6 Road and Waterbody Crossing ATWS-0052 A14-176-S2 20.1 20.2 30 Waterbody Crossing ATWS-1151 A14-25-S1 Road and Waterbody Crossing 21.3 21.3 24 ATWS-0689 A14-175-S1 22 Waterbody Crossing 22 45 ATWS-0688 A14-175-S1 22 22.1 Waterbody Crossing 10 ATWS-1158 A14-27-S1 23.2 23.4 14 Waterbody Crossing ATWS-0733 A14-26-S1 23.2 23.2 44 Waterbody Crossing ATWS-1886 A14-27-S1 23.4 23.5 22 Waterbody Crossing ATWS-0646 A14-31-S1 25 25 26 Waterbody Crossing ATWS-0645 A14-31-S1 25 25.1 17 Waterbody Crossing ATWS-1169 A14-99-S1 26 26.1 14 Waterbody Crossing ATWS-0071 A14-99-S1 26 26.1 14 Waterbody Crossing ATWS-1887 A14-99-S2 Waterbody Crossing 26.1 26.1 19

ATWS-0072

26.1

26.1

16

A14-99-S2

Waterbody Crossing



TABLE 2.3-12

Additional Temporary Workspace within 50 feet of Waterbodies for the NEXUS Project Pipeline Facilities

State/ Facility/ ATWS Name	Waterbody ID	Milepost Start a/	Milepost End a/	Distance from Resource Area (Feet)	ATWS Justification
ATWS-0086	AS-ST-14	28.5	28.6	0	Road and Waterbody Crossin
ATWS-1179	AS-ST-15	28.6	28.6	10	Waterbody Crossing
ATWS-0737	AS-ST-15	28.6	28.6	16	Road and Waterbody Crossir
ATWS-1181	AS-ST-17	28.9	28.9	15	Waterbody Crossing
ATWS-0739	AS-ST-17	28.9	29	14	Waterbody Crossing
ATWS-1183	AP-ST-25	29.3	29.4	33	Waterbody Crossing
ATWS-2160	A14-159-S1	29.7	29.9	12	Road and Waterbody Crossin
ATWS-1998	AS-ST-24	29.9	30.1	11	Waterbody Crossing
ATWS-1998	A14-159-S1	29.9	30.1	15	Waterbody Crossing
ATWS-1998	A14-158-S1	29.9	30.1	11	Waterbody Crossing
ATWS-0612	A14-158-S1	30	30	49	Road and Waterbody Crossin
ATWS-0613	A14-158-S1	30.1	30.1	11	Road and Waterbody Crossin
ATWS-1185	AS-ST-24	30.1	30.4	13	Road and Waterbody Crossin
ATWS-1185	A14-158-S1	30.1	30.4	13	Road and Waterbody Crossin
ATWS-2165	A14-163-S1	30.7	30.8	39	Waterbody Crossing
ATWS-0691	A14-164-S2	31.1	31.1	17	Road and Waterbody Crossin
ATWS-0090	A14-164-S1	31.1	31.2	42	Road and Waterbody Crossin
ATWS-1384	A14-164-S1	31.3	31.3	20	Waterbody Crossing
ATWS-1996	AS-SU-5	34.4	34.5	49	Waterbody Crossing
ATWS-0574	AS-SU-9	36.1	36.1	11	Waterbody Crossing
ATWS-1993	A14-166-S1	36.5	36.7	12	Waterbody Crossing
ATWS-1400	A14-166-S1	36.7	36.9	17	Waterbody Crossing
ATWS-2087	A14-112-S1	37.1	37.2	30	Waterbody Crossing
ATWS-2089	AS-SU-13	38	38	50	Waterbody Crossing
ATWS-0101	AS-SU-13A	38	38	39	Road and Waterbody Crossin
ATWS-2091	A14-120-S2	38.4	38.5	35	Waterbody Crossing
ATWS-1402	A14-120-S1	38.5	38.6	48	Constructability
ATWS-1402	A14-120-S2	38.5	38.6	19	Constructability
ATWS-0548	A14-120-S1	38.6	38.7	34	Waterbody Crossing
ATWS-0578	AS-SU-21A	41.6	41.7	0	Waterbody Crossing
ATWS-1986	B14-1-S1	43.3	43.3	44	Constructability
ATWS-1368	AS-SU-29	43.8	43.9	17	Waterbody Crossing
ATWS-0119	AS-SU-30	44.1	44.1	0	Waterbody Crossing



TABLE 2.3-12

Additional Temporary Workspace within 50 feet of Waterbodies for the NEXUS Project Pipeline Facilities

State/ Facility/ ATWS Name	Waterbody ID	Milepost Start a/	Milepost End a/	Distance from Resource Area (Feet)	ATWS Justification
ATWS-0580	A14-119-S1	44.3	44.3	50	Waterbody Crossing
ATWS-0121	AS-SU-34	44.8	44.8	34	Road and Waterbody Crossing
ATWS-2065	AS-SU-37	46	46	17	Railroad and Waterbody Crossin
ATWS-0125	AP-SU-40	46.7	46.7	47	Waterbody Crossing
ATWS-0127	A14-41-S2	47.5	47.6	15	Road and Waterbody Crossing
ATWS-1980	A14-41-S1	47.6	47.6	13	Waterbody Crossing
ATWS-0128	A14-41-S1	47.6	47.6	23	Waterbody Crossing
ATWS-1376	AS-WE-1	48.1	48.2	8	Waterbody Crossing
ATWS-1979	AS-WE-1	48.2	48.7	11	Waterbody Crossing
ATWS-1375	AS-WE-4	48.9	49	39	Waterbody Crossing
ATWS-0694	AS-WE-5	49.1	49.1	20	Road and Waterbody Crossin
ATWS-0585	A14-124-S2	50.1	50.2	28	Waterbody Crossing
ATWS-1417	A14-124-S1	50.3	50.4	45	Waterbody Crossing
ATWS-0751	A14-124-S1	50.4	50.4	33	Waterbody Crossing
ATWS-0137	AS-WE-11A	50.7	50.8	11	Waterbody Crossing
ATWS-2162	AS-WE-11A	50.8	50.8	11	Waterbody Crossing
ATWS-0608	AS-WE-17	53	53	15	Waterbody Crossing
ATWS-1348	AS-WE-18	53	53.1	24	Waterbody Crossing
ATWS-2022	AS-WE-18	53.2	53.3	26	Waterbody Crossing
ATWS-0754	AS-ME-1	54.4	54.4	38	Road and Waterbody Crossin
ATWS-0144	AS-ME-1	54.4	54.4	33	Road and Waterbody Crossin
ATWS-0586	AS-ME-6	55	55.1	36	Waterbody Crossing
ATWS-0649	AS-ME-6	55.1	55.1	15	Waterbody Crossing
ATWS-0649	A14-43-S1	55.1	55.1	15	Waterbody Crossing
ATWS-1350	AS-ME-7	55.4	56.1	15	Waterbody Crossing
ATWS-2154	AS-ME-7	56.1	56.2	13	Road and Waterbody Crossin
ATWS-0589	AS-ME-16	57.1	57.1	13	Waterbody Crossing
ATWS-0616	AS-ME-16	57.1	57.2	11	Waterbody Crossing
ATWS-0149	AS-ME-17	57.3	57.3	13	Road and Waterbody Crossin
ATWS-0150	AS-ME-17	57.3	57.3	27	Road and Waterbody Crossin
ATWS-1433	A14-40-S1	57.9	58	32	Waterbody Crossing
ATWS-1353	A14-37-S1	58.6	58.6	16	Waterbody Crossing
ATWS-2021	A14-37-S1	58.7	58.7	15	Waterbody Crossing



TABLE 2.3-12

Additional Temporary Workspace within 50 feet of Waterbodies for the NEXUS Project Pipeline Facilities

State/ Facility/ ATWS Name	Waterbody ID	Milepost Start a/	Milepost End a/	Distance from Resource Area (Feet)	ATWS Justification
ATWS-1437	AS-ME-19	58.8	59	27	Waterbody Crossing
ATWS-1436	AS-ME-20	59	59.1	26	Waterbody Crossing
ATWS-1439	AS-ME-91	59.6	59.7	43	Waterbody Crossing
ATWS-1440	AS-ME-91A	59.8	59.9	12	Waterbody Crossing
ATWS-2163	AP-ME-27	64.1	64.2	50	Waterbody Crossing
ATWS-0172	AP-ME-33	64.8	64.9	26	Waterbody Crossing
ATWS-0172	AS-ME-32	64.8	64.9	7	Waterbody Crossing
ATWS-2018	AS-ME-34	64.9	65.1	10	Waterbody Crossing
ATWS-2018	AS-ME-34A	64.9	65.1	10	Waterbody Crossing
ATWS-1450	AS-ME-34	65.1	65.2	49	Waterbody Crossing
ATWS-0173	AS-ME-35	65.3	65.4	27	Waterbody Crossing
ATWS-0175	AS-ME-39	66	66	39	Road and Waterbody Crossii
ATWS-0176	AS-ME-41A	66.8	66.9	24	Waterbody Crossing
ATWS-1973	AS-ME-46	67.8	67.8	18	Waterbody Crossing
ATWS-2016	AS-ME-46	67.8	67.8	0	Waterbody Crossing
ATWS-2017	AS-ME-46	67.8	67.9	31	Waterbody Crossing
ATWS-1360	AS-ME-47	67.9	68.1	16	Road and Waterbody Crossin
ATWS-1360	AS-ME-48	67.9	68.1	19	Road and Waterbody Crossii
ATWS-0285	AS-ME-56	70.6	70.6	24	Waterbody Crossing
ATWS-1461	AS-ME-58A	70.7	70.8	49	Waterbody Crossing
ATWS-1463	AS-ME-58C	70.8	70.9	25	Waterbody Crossing
ATWS-1464	AS-ME-58B	70.9	71	46	Waterbody Crossing
ATWS-1345	AS-ME-62	71.1	72	25	Waterbody Crossing
ATWS-1466	B14-10-S1	72	72	29	Waterbody Crossing
ATWS-1467	B14-10-S1	72.1	72.4	28	Waterbody Crossing
ATWS-2024	AS-ME-67	73.2	73.2	31	Waterbody Crossing
ATWS-0192	AS-ME-69	73.4	73.5	44	Waterbody Crossing
ATWS-1474	AS-ME-75	74.4	74.4	13	Waterbody Crossing
ATWS-1475	AS-ME-75	74.4	74.5	15	Waterbody Crossing
ATWS-1484	AS-ME-96	75.2	75.6	10	Waterbody Crossing
ATWS-1485	AS-ME-96	75.6	75.8	9	Waterbody Crossing
ATWS-0196	AS-ME-97	75.8	75.8	13	Road and Waterbody Crossir
ATWS-2058	AS-ME-98	75.9	76.1	11	Waterbody Crossing



TABLE 2.3-12

Additional Temporary Workspace within 50 feet of Waterbodies for the NEXUS Project Pipeline Facilities

State/ Facility/ ATWS Name	Waterbody ID	Milepost Start a/	Milepost End a/	Distance from Resource Area (Feet)	ATWS Justification
ATWS-2013	AS-ME-98	76.1	76.2	11	Waterbody Crossing
ATWS-2013	AS-ME-99	76.1	76.2	25	Waterbody Crossing
ATWS-1487	AS-ME-99	76.2	76.3	45	Waterbody Crossing
ATWS-2080	AS-LO-31B	77.4	77.5	11	Waterbody Crossing
ATWS-2079	AS-LO-31B	77.5	77.6	14	Waterbody Crossing
ATWS-2079	AS-LO-32	77.5	77.6	13	Waterbody Crossing
ATWS-2081	AS-LO-32	77.6	77.7	8	Waterbody Crossing
ATWS-2081	AS-LO-34	77.6	77.7	11	Waterbody Crossing
ATWS-1335	AS-LO-34	77.8	77.9	11	Waterbody Crossing
ATWS-0200	AS-LO-38	79.2	79.2	47	Waterbody Crossing
ATWS-0201	A14-61-S1	79.2	79.2	32	Road and Waterbody Crossir
ATWS-0768	A14-61-S1	79.3	79.3	46	Road and Waterbody Crossir
ATWS-2169	A14-69-S3	80.8	80.9	32	Waterbody Crossing
ATWS-2169	A14-69-S2	80.8	80.9	32	Waterbody Crossing
ATWS-0202	AS-LO-47	81.3	81.3	14	Road and Waterbody Crossir
ATWS-2145	AS-LO-47	81.3	81.3	7	Road and Waterbody Crossir
ATWS-2144	AS-LO-47	81.3	81.3	34	Road and Waterbody Crossir
ATWS-0203	AS-LO-47	81.3	81.3	40	Waterbody Crossing
ATWS-1496	AS-LO-10	82.5	82.5	25	Road and Waterbody Crossir
ATWS-1496	AS-LO-10A	82.5	82.5	25	Road and Waterbody Crossir
ATWS-2068	A14-50-S1	83.3	83.3	0	Waterbody Crossing
ATWS-1501	A14-55-S1	83.8	83.9	10	Waterbody Crossing
ATWS-1343	A14-55-S1	83.9	84.1	10	Waterbody Crossing
ATWS-1502	AS-LO-45	84.4	84.6	10	Waterbody Crossing
ATWS-1503	AS-LO-45	84.6	84.8	10	Waterbody Crossing
ATWS-1295	A14-128-S1	85.5	85.8	11	Waterbody Crossing
ATWS-0701	A14-75-S1	85.9	85.9	10	Road and Waterbody Crossir
ATWS-0701	A14-75-S2	85.9	85.9	15	Road and Waterbody Crossir
ATWS-0700	A14-75-S2	85.9	85.9	15	Road and Waterbody Crossir
ATWS-0702	A14-76-S1	86.8	86.8	21	Waterbody Crossing
ATWS-0209	A14-76-S1	86.8	86.8	15	Waterbody Crossing
ATWS-1294	A14-130-S1	86.9	87.1	10	Waterbody Crossing
ATWS-0291	A14-130-S1	87.1	87.2	10	Road and Waterbody Crossin



TABLE 2.3-12

Additional Temporary Workspace within 50 feet of Waterbodies for the NEXUS Project Pipeline Facilities

State/ Facility/ ATWS Name	Waterbody ID	Milepost Start a/	Milepost End a/	Distance from Resource Area (Feet)	ATWS Justification
ATWS-1298	AS-LO-19	88.4	88.7	27	Waterbody Crossing
ATWS-0779	AS-LO-22	89	89.2	43	Waterbody Crossing
ATWS-0213	A14-140-S1	90	90	6	Waterbody Crossing
ATWS-1891	AS-LO-28	93.2	93.3	36	Road and Waterbody Crossir
ATWS-1892	AS-LO-28	93.3	93.3	35	Road and Waterbody Crossin
ATWS-0221	A14-138-S1	93.3	93.4	43	Waterbody Crossing
ATWS-1306	A14-138-S2	93.4	93.4	0	Waterbody Crossing
ATWS-0704	A14-152-S1	97.3	97.4	15	Waterbody Crossing
ATWS-0705	A14-152-S1	97.4	97.4	15	Waterbody Crossing
ATWS-0239	A14-198-S1	99.8	99.8	27	Road and Waterbody Crossin
ATWS-1890	A14-198-S1	99.8	99.9	12	Road and Waterbody Crossin
ATWS-0793	AS-ER-49B	101.7	101.7	46	Waterbody Crossing
ATWS-2086	AS-ER-49B	101.7	101.8	47	Waterbody Crossing
ATWS-1530	AS-ER-49A	101.8	101.8	12	Waterbody Crossing
ATWS-1531	AS-ER-49A	101.8	101.8	12	Waterbody Crossing
ATWS-0708	AS-ER-49	101.8	101.9	4	Waterbody Crossing
ATWS-1318	AS-ER-53	107.4	107.5	11	Waterbody Crossing
ATWS-2083	AS-ER-53	107.5	107.7	11	Waterbody Crossing
ATWS-0610	A14-156-S1	112.3	112.4	30	Waterbody Crossing
ATWS-0818	AS-ER-25	115.9	116	11	Waterbody Crossing
ATWS-1561	AS-ER-25	116	116.2	17	Waterbody Crossing
ATWS-1561	AS-ER-51	116	116.2	19	Waterbody Crossing
ATWS-0822	AS-ER-52	116.7	116.7	48	Road and Waterbody Crossii
ATWS-0823	AS-ER-52	116.7	116.8	0	Road and Waterbody Crossii
ATWS-1967	AS-ER-26	116.9	117.8	7	Road and Waterbody Crossii
ATWS-1329	AS-ER-26	117.8	117.8	5	Road and Waterbody Crossii
ATWS-0824	AS-ER-26	117.9	117.9	18	Waterbody Crossing
ATWS-0825	AS-ER-26	117.9	117.9	18	Waterbody Crossing
ATWS-1966	E14-96-S1	118.3	118.8	11	Waterbody Crossing
ATWS-1565	E14-96-S1	118.8	119	14	Waterbody Crossing
ATWS-0545	AS-ER-28	119.7	119.8	26	Waterbody Crossing
ATWS-0546	AS-ER-28	119.8	119.8	9	Waterbody Crossing
ATWS-0829	E14-95-S1	121.6	121.7	48	Road and Waterbody Crossir



TABLE 2.3-12

Additional Temporary Workspace within 50 feet of Waterbodies for the NEXUS Project Pipeline Facilities

State/ Facility/ ATWS Name	Waterbody ID	Milepost Start a/	Milepost End a/	Distance from Resource Area (Feet)	ATWS Justification
ATWS-0265	E14-49-S1	123.1	123.1	11	Road and Waterbody Crossin
ATWS-0266	E14-49-S1	123.1	123.1	27	Waterbody Crossing
ATWS-1965	AS-ER-30	123.5	123.5	13	Waterbody Crossing
ATWS-1965	E14-50-S1	123.5	123.5	13	Waterbody Crossing
ATWS-0835	E14-50-S1	123.5	123.6	10	Waterbody Crossing
ATWS-0303	AS-ER-30	123.6	123.6	10	Waterbody Crossing
ATWS-0303	E14-50-S1	123.6	123.6	10	Waterbody Crossing
ATWS-0834	E14-50-S1	123.6	123.6	11	Waterbody Crossing
ATWS-1332	E14-51-S1	123.6	123.8	13	Waterbody Crossing
ATWS-0837	E14-51-S1	123.8	123.8	11	Waterbody Crossing
ATWS-0836	E14-51-S1	123.8	123.8	10	Waterbody Crossing
ATWS-1289	E14-94-S1	124.9	125.7	23	Waterbody Crossing
ATWS-0503	D14-1-S1	129.9	130	14	Waterbody Crossing
ATWS-0843	D14-4-S1	130.7	131	12	Waterbody Crossing
ATWS-0844	D14-4-S1	131	131	10	Waterbody Crossing
ATWS-0845	D14-5-S1	131	131	14	Waterbody Crossing
ATWS-0848	D14-7-S1	132	132.1	0	Waterbody Crossing
ATWS-0849	D14-7-S1	132.1	132.1	26	Waterbody Crossing
ATWS-1962	AS-SA-1	132.5	132.5	46	Waterbody Crossing
ATWS-1588	AS-SA-1	132.6	133	12	Waterbody Crossing
ATWS-0852	E14-105-S1	133.6	133.6	13	Waterbody Crossing
ATWS-0853	AS-SA-77	133.6	133.6	30	Waterbody Crossing
ATWS-0853	E14-105-S1	133.6	133.6	30	Waterbody Crossing
ATWS-0856	D14-9-S1	134.2	134.3	12	Road and Waterbody Crossin
ATWS-0857	D14-10-S1	134.7	134.7	18	Waterbody Crossing
ATWS-1592	AS-SA-3	135.5	135.6	27	Waterbody Crossing
ATWS-1592	D14-8-S1	135.5	135.6	27	Waterbody Crossing
ATWS-0864	AS-SA-4	136.7	136.7	23	Waterbody Crossing
ATWS-0865	AS-SA-4	136.7	136.8	35	Waterbody Crossing
ATWS-0323	AS-SA-100	138.2	138.2	12	Road and Waterbody Crossin
ATWS-0324	AS-SA-100	138.2	138.3	38	Road and Waterbody Crossir
ATWS-0872	E14-36-S1	138.5	138.5	10	Waterbody Crossing
ATWS-0873	E14-36-S1	138.6	138.6	10	Waterbody Crossing



TABLE 2.3-12

Additional Temporary Workspace within 50 feet of Waterbodies for the NEXUS Project Pipeline Facilities

State/ Facility/ ATWS Name	Waterbody ID	Milepost Start a/	Milepost End a/	Distance from Resource Area (Feet)	ATWS Justification
ATWS-0598	D14-40-S1	139.2	139.3	11	Waterbody Crossing
ATWS-0599	D14-40-S1	139.3	139.3	9	Waterbody Crossing
ATWS-0391	E14-19-S1	140.5	140.6	0	Constructability
ATWS-0505	D14-33-S1	142.4	142.4	29	Road and Waterbody Crossin
ATWS-0504	D14-33-S1	142.4	142.5	10	Road and Waterbody Crossin
ATWS-0878	E14-98-S1	142.6	142.6	13	Waterbody Crossing
ATWS-0393	E14-98-S1	142.6	142.6	7	Waterbody Crossing
ATWS-1659	E14-121-S1	142.6	142.7	10	Waterbody Crossing
ATWS-1606	E14-121-S1	142.7	143.2	13	Waterbody Crossing
ATWS-1608	AS-SA-77A	143.3	144.2	50	Waterbody Crossing
ATWS-0882	AS-SA-82	144.3	144.3	32	Waterbody Crossing
ATWS-0881	AS-SA-82	144.3	144.3	17	Waterbody Crossing
ATWS-1661	AS-SA-9	148.3	148.4	50	Waterbody Crossing
ATWS-0338	E14-181-S1	148.7	148.7	30	Road and Waterbody Crossin
ATWS-1955	E14-181-S1	148.7	148.7	4	Waterbody Crossing
ATWS-0339	E14-181-S1	148.7	148.7	0	Waterbody Crossing
ATWS-0342	AS-SA-10	149.4	149.4	19	Waterbody Crossing
ATWS-0671	AS-SA-10	149.4	149.4	11	Waterbody Crossing
ATWS-0617	E14-109-S1	149.6	149.7	26	Waterbody Crossing
ATWS-1953	E14-109-S1	149.6	149.7	39	Waterbody Crossing
ATWS-0343	E14-109-S1	149.7	149.7	0	Waterbody Crossing
ATWS-1256	E14-42-S1	149.7	150.1	14	Waterbody Crossing
ATWS-0601	AS-SA-12	150.1	150.1	12	Waterbody Crossing
ATWS-0601	E14-42-S1	150.1	150.1	12	Waterbody Crossing
ATWS-2171	E14-42-S1	150.1	150.2	13	Waterbody Crossing
ATWS-0529	AS-SA-12	150.2	150.2	14	Waterbody Crossing
ATWS-0669	E14-3-S1	150.9	150.9	17	Waterbody Crossing
ATWS-0554	AS-SA-14	152.7	152.7	17	Waterbody Crossing
ATWS-0555	AS-SA-14	152.8	152.8	18	Waterbody Crossing
ATWS-1939	AS-SA-15	155.8	156	39	Road and Waterbody Crossin
ATWS-1939	E14-107-S1	155.8	156	39	Road and Waterbody Crossin
ATWS-0530	E14-108-S1	156.2	156.2	10	Waterbody Crossing
ATWS-0531	E14-108-S1	156.2	156.2	10	Waterbody Crossing



TABLE 2.3-12

Additional Temporary Workspace within 50 feet of Waterbodies for the NEXUS Project Pipeline Facilities

State/ Facility/ ATWS Name	Waterbody ID	Milepost Start a/	Milepost End a/	Distance from Resource Area (Feet)	ATWS Justification
ATWS-0354	AS-SA-16	157.9	158	10	Road and Waterbody Crossin
ATWS-1265	AS-SA-16	158	158.1	47	Road and Waterbody Crossin
ATWS-1271	AS-WO-4	158.8	159	11	Waterbody Crossing
ATWS-1273	D14-31-S1	159.5	159.6	35	Waterbody Crossing
ATWS-0928	AS-WO-16	160.4	160.5	14	Waterbody Crossing
ATWS-0928	E14-85-S1	160.4	160.5	14	Waterbody Crossing
ATWS-0929	AS-WO-16	160.5	160.5	33	Waterbody Crossing
ATWS-0929	E14-85-S1	160.5	160.5	33	Waterbody Crossing
ATWS-1931	E14-153-S1	161.3	161.3	26	Waterbody Crossing
ATWS-1275	E14-153-S1	161.3	161.4	29	Waterbody Crossing
ATWS-0938	AS-WO-14	161.6	161.7	19	Waterbody Crossing
ATWS-0937	D14-34-S1	161.6	161.7	17	Waterbody Crossing
ATWS-0937	AS-WO-14	161.6	161.7	17	Waterbody Crossing
ATWS-1928	E14-175-S1	162	162.2	23	Waterbody Crossing
ATWS-0941	E14-175-S1	162.1	162.2	33	Waterbody Crossing
ATWS-1927	E14-175-S1	162.2	162.7	19	Waterbody Crossing
ATWS-1276	AS-WO-1	162.9	163.1	15	Waterbody Crossing
ATWS-0532	E14-48-S1	163.1	163.2	50	Waterbody Crossing
ATWS-0361	E14-48-S1	163.2	163.2	10	Waterbody Crossing
ATWS-0366	E14-79-S1	165.3	165.3	24	Road and Waterbody Crossin
ATWS-0367	E14-79-S1	165.3	165.3	13	Road and Waterbody Crossin
ATWS-0368	E14-80-S1	165.6	165.7	10	Road and Waterbody Crossir
ATWS-0369	E14-80-S1	165.7	165.7	22	Road and Waterbody Crossir
ATWS-0533	E14-40-S1	165.9	166	11	Waterbody Crossing
ATWS-0534	E14-40-S1	166	166	10	Waterbody Crossing
ATWS-0370	AS-WO-5	167.4	167.4	28	Road and Waterbody Crossir
ATWS-0371	AS-WO-5	167.4	167.5	10	Road and Waterbody Crossir
ATWS-0373	AS-WO-6	168.8	168.8	4	Waterbody Crossing
ATWS-0374	E14-35-S1	169.3	169.3	29	Road and Waterbody Crossir
ATWS-0375	E14-35-S1	169.3	169.4	10	Road and Waterbody Crossir
ATWS-0378	AS-WO-7	170.3	170.3	24	Road and Waterbody Crossir
ATWS-0379	AS-WO-7	170.3	170.4	13	Road and Waterbody Crossin
ATWS-0382	AS-WO-8	172	172	32	Road and Waterbody Crossir



TABLE 2.3-12

Additional Temporary Workspace within 50 feet of Waterbodies for the NEXUS Project Pipeline Facilities

State/ Facility/ ATWS Name	Waterbody ID	Milepost Start a/	Milepost End a/	Distance from Resource Area (Feet)	ATWS Justification
ATWS-0383	AS-WO-8	172	172.1	12	Road and Waterbody Crossin
ATWS-0384	D14-45A-S1	172.7	172.8	37	Road Crossing
ATWS-0385	D14-45A-S1	172.8	172.8	7	Road Crossing
ATWS-2192	AS-WO-18	174.7	174.7	10	Road and Waterbody Crossin
ATWS-0957	AS-WO-18	174.7	174.7	48	Waterbody Crossing
ATWS-0958	AS-WO-18	174.7	174.8	10	Road and Waterbody Crossin
ATWS-0962	E14-44-S1	175.4	175.5	46	Waterbody Crossing
ATWS-0963	E14-47-S1	175.6	175.7	14	Waterbody Crossing
ATWS-0672	E14-116-S1	177.2	177.2	16	Waterbody Crossing
ATWS-0965	E14-116-S1	177.3	177.3	10	Waterbody Crossing
ATWS-0674	E14-29-S1	177.9	178	9	Waterbody Crossing
ATWS-0675	E14-29-S1	178	178	11	Waterbody Crossing
ATWS-1286	AS-LU-3	178.2	178.4	6	Waterbody Crossing
ATWS-1286	E14-1-S1	178.2	178.4	18	Waterbody Crossing
ATWS-1897	AS-LU-3	178.4	178.8	11	Waterbody Crossing
ATWS-1897	AS-LU-4	178.4	178.8	14	Waterbody Crossing
ATWS-1063	AS-LU-4	178.7	178.8	8	Waterbody Crossing
ATWS-1896	AS-LU-4	178.8	178.9	3	Waterbody Crossing
ATWS-2029	AS-LU-5	179.9	179.9	16	Waterbody Crossing
ATWS-2101	E14-22-S1	181	181.3	36	Waterbody Crossing
ATWS-1066	E14-22-S1	181.3	181.3	12	Waterbody Crossing
ATWS-1067	E14-22-S1	181.3	181.4	13	Waterbody Crossing
ATWS-1068	AS-LU-16	182	182	17	Road and Waterbody Crossin
ATWS-1018	AS-LU-16	182	182	19	Waterbody Crossing
ATWS-2102	AS-LU-17	182	182.1	12	Waterbody Crossing
ATWS-2103	AS-LU-18	182.1	182.3	23	Waterbody Crossing
ATWS-2103	AS-LU-17	182.1	182.3	12	Waterbody Crossing
ATWS-2104	AS-LU-18	182.3	182.4	18	Waterbody Crossing
ATWS-1191	AS-LU-20	182.8	183	20	Waterbody Crossing
ATWS-1188	AS-HE-2	184.1	184.1	13	Waterbody Crossing
ATWS-2106	AS-HE-2	184.2	184.2	16	Waterbody Crossing
ATWS-0982	AS-HE-7	184.8	184.8	14	Waterbody Crossing
ATWS-1073	AS-FU-55	185.6	185.6	13	Waterbody Crossing



TABLE 2.3-12

Additional Temporary Workspace within 50 feet of Waterbodies for the NEXUS Project Pipeline Facilities

State/ Facility/ ATWS Name	Waterbody ID	Milepost Start a/	Milepost End a/	Distance from Resource Area (Feet)	ATWS Justification
ATWS-1072	AS-FU-55	185.6	185.6	14	Waterbody Crossing
ATWS-1074	AS-FU-55A	185.7	185.8	14	Waterbody Crossing
ATWS-1199	AS-FU-55A	185.8	186.1	21	Waterbody Crossing
ATWS-0989	AS-FU-56	186.3	186.3	12	Waterbody Crossing
ATWS-2111	AS-FU-56	186.3	186.3	21	Waterbody Crossing
ATWS-0990	AS-FU-56	186.3	186.3	18	Waterbody Crossing
ATWS-1019	AS-FU-57	186.9	186.9	15	Waterbody Crossing
ATWS-0991	AS-FU-57	187	187	14	Waterbody Crossing
ATWS-2114	AS-FU-58	187.5	187.7	17	Waterbody Crossing
ATWS-1204	AS-FU-58	187.7	187.8	16	Waterbody Crossing
ATWS-1024	AS-FU-58	187.8	187.9	15	Waterbody Crossing
ATWS-1023	AS-FU-58	187.9	187.9	14	Waterbody Crossing
ATWS-1076	AS-FU-59	188.5	188.6	12	Waterbody Crossing
ATWS-1215	AS-FU-59	188.6	189.5	16	Waterbody Crossing
ATWS-1027	AS-FU-60	189.6	189.7	35	Waterbody Crossing
ATWS-1028	AS-FU-60	189.6	189.7	17	Waterbody Crossing
ATWS-1029	AS-FU-60	189.7	189.7	16	Waterbody Crossing
ATWS-1079	AS-FU-61	189.9	189.9	16	Waterbody Crossing
ATWS-1080	AS-FU-61	189.9	189.9	14	Waterbody Crossing
ATWS-1033	AS-FU-62	190.5	190.5	14	Waterbody Crossing
ATWS-1032	AS-FU-62	190.5	190.6	32	Waterbody Crossing
ATWS-0999	AS-FU-63	191	191	17	Waterbody Crossing
ATWS-0998	AS-FU-63	191	191.1	17	Waterbody Crossing
ATWS-1000	AS-FU-65	191.9	191.9	15	Waterbody Crossing
ATWS-2119	AS-FU-65	191.9	191.9	12	Waterbody Crossing
ATWS-1002	AS-FU-66	191.9	192.1	18	Waterbody Crossing
ATWS-1003	AS-FU-66	192.1	192.4	18	Waterbody Crossing
ATWS-1005	AS-FU-67	192.5	192.5	20	Waterbody Crossing
ATWS-2038	AS-FU-67	192.5	192.5	21	Waterbody Crossing
ATWS-1010	AS-FU-68	193.2	193.3	13	Waterbody Crossing
ATWS-1011	AS-FU-68	193.3	193.3	14	Road and Waterbody Crossi
ATWS-0539	E14-4-S1	195.4	195.4	48	Waterbody Crossing
ATWS-0540	E14-4-S1	195.4	195.5	34	Waterbody Crossing



TABLE 2.3-12

Additional Temporary Workspace within 50 feet of Waterbodies for the NEXUS Project Pipeline Facilities

State/ Facility/ ATWS Name	Waterbody ID	Milepost Start a/	Milepost End a/	Distance from Resource Area (Feet)	ATWS Justification
ATWS-1040	AS-FU-20	196.7	196.8	19	Waterbody Crossing
ATWS-0516	D14-24-S1	197.3	197.3	33	Waterbody Crossing
ATWS-1041	D14-24-S1	197.3	197.4	0	Waterbody Crossing
ATWS-1043	E14-112-S1	198	198.1	15	Waterbody Crossing
ATWS-1042	E14-112-S1	198.1	198.1	14	Waterbody Crossing
ATWS-0446	D14-44-S1	198.4	198.4	42	Road and Waterbody Crossin
ATWS-0447	D14-44-S1	198.4	198.5	13	Road and Waterbody Crossin
ATWS-1045	D14-44-S1	198.5	198.6	13	Waterbody Crossing
ATWS-1044	D14-44-S1	198.6	198.6	12	Waterbody Crossing
ATWS-1049	E14-53-S1	199.7	199.7	15	Waterbody Crossing
ATWS-1048	E14-53-S1	199.7	199.8	12	Waterbody Crossing
ATWS-2093	AS-FU-21	199.8	200.1	11	Waterbody Crossing
ATWS-1226	AS-FU-21	200.1	200.4	12	Road and Waterbody Crossin
ATWS-1226	AS-FU-22	200.1	200.4	12	Road and Waterbody Crossin
ATWS-2039	AS-FU-22	200.4	200.5	12	Road and Waterbody Crossin
ATWS-1088	AS-FU-50	200.7	200.7	15	Waterbody Crossing
ATWS-1089	AS-FU-50	200.7	200.7	15	Waterbody Crossing
ATWS-1051	E14-12-S1	201.5	201.5	0	Waterbody Crossing
ATWS-1053	AS-FU-23	202.3	202.4	19	Road and Waterbody Crossin
ATWS-1055	AS-FU-23	202.4	202.4	18	Road and Waterbody Crossin
ATWS-1055	D14-45-S1	202.4	202.4	18	Road and Waterbody Crossin
		Michiga	ın		
ATWS-1057	E14-113-S1	203.2	203.2	10	Waterbody Crossing
ATWS-1056	E14-113-S1	203.2	203.2	14	Waterbody Crossing
ATWS-1671	E14-114-S1	203.4	203.5	14	Road and Waterbody Crossin
ATWS-1670	E14-114-S1	203.5	203.5	30	Road and Waterbody Crossin
ATWS-0450	AS-LE-1	204.4	204.5	12	Waterbody Crossing
ATWS-0451	AS-LE-1	204.5	204.5	30	Road and Waterbody Crossir
ATWS-0454	E14-78-S1	205.4	205.4	11	Waterbody Crossing
ATWS-0455	E14-78-S1	205.5	205.5	30	Waterbody Crossing
ATWS-0456	E14-56-S1	206.5	206.5	13	Road and Waterbody Crossin
ATWS-0457	E14-56-S1	206.5	206.5	25	Road and Waterbody Crossin
ATWS-0458	E14-137-S1	207.4	207.4	14	Road and Waterbody Crossir



TABLE 2.3-12

Additional Temporary Workspace within 50 feet of Waterbodies for the NEXUS Project Pipeline Facilities

State/ Facility/ ATWS Name	Waterbody ID	Milepost Start a/	Milepost End a/	Distance from Resource Area (Feet)	ATWS Justification Road and Waterbody Crossin	
ATWS-0459	E14-137-S1	207.4	207.5	26		
ATWS-0679	E14-138-S1	207.9	207.9	14	Waterbody Crossing	
ATWS-0680	E14-138-S1	208	208	13	Waterbody Crossing	
ATWS-0460	E14-139-S1	208.4	208.5	15	Road and Waterbody Crossin	
ATWS-0461	E14-139-S1	208.5	208.5	29	Road and Waterbody Crossin	
ATWS-1676	AS-LE-3	209.8	209.8	14	Waterbody Crossing	
ATWS-1676	E14-140-S1	209.8	209.8	14	Waterbody Crossing	
ATWS-1677	E14-140-S1	209.8	209.8	22	Waterbody Crossing	
ATWS-1678	AS-LE-5	210.2	210.7	14	Waterbody Crossing	
ATWS-1679	AS-LE-5	210.7	211.1	15	Waterbody Crossing	
ATWS-2042	E14-58-S1	211.1	211.2	12	Road and Waterbody Crossin	
ATWS-0465	E14-58-S1	211.1	211.1	43	Road and Waterbody Crossin	
ATWS-1681	AS-LE-6	211.4	211.5	37	Waterbody Crossing	
ATWS-1687	AS-LE-6	211.4	211.5	36	Waterbody Crossing	
ATWS-1682	AS-LE-7	211.5	211.5	10	Road and Waterbody Crossin	
ATWS-1683	AS-LE-7	211.5	211.5	12	Road and Waterbody Crossin	
ATWS-0541	E14-59-S1	211.8	211.9	11	Waterbody Crossing	
ATWS-0542	E14-59-S1	211.9	211.9	11	Waterbody Crossing	
ATWS-1688	AS-LE-8	212.4	212.4	13	Waterbody Crossing	
ATWS-1689	AS-LE-8	212.5	212.5	13	Waterbody Crossing	
ATWS-0682	E14-141-S1	212.9	212.9	14	Waterbody Crossing	
ATWS-0681	E14-141-S1	212.9	212.9	15	Waterbody Crossing	
ATWS-0683	E14-142-S1	213.2	213.2	17	Waterbody Crossing	
ATWS-0684	E14-142-S1	213.2	213.2	13	Waterbody Crossing	
ATWS-1693	AS-LE-9	214	214.1	6	Waterbody Crossing	
ATWS-1696	AS-LE-10	214.4	214.4	15	Road and Waterbody Crossin	
ATWS-1695	AS-LE-10	214.4	214.5	37	Road and Waterbody Crossin	
ATWS-1698	AS-LE-11	214.8	214.8	13	Waterbody Crossing	
ATWS-1698	E14-143-S1	214.8	214.8	13	Waterbody Crossing	
ATWS-1700	E14-64-S1	215	215	12	Road and Waterbody Crossir	
ATWS-1701	E14-64-S1	215.1	215.1	11	Road and Waterbody Crossir	
ATWS-1712	E14-69-S1	216.4	216.4	12	Road and Waterbody Crossir	
ATWS-1713	E14-69-S1	216.4	216.4	30	Constructability	



TABLE 2.3-12

Additional Temporary Workspace within 50 feet of Waterbodies for the NEXUS Project Pipeline Facilities

State/ Facility/ ATWS Name	Waterbody ID	Milepost Start a/	Milepost End a/	Distance from Resource Area (Feet)	ATWS Justification
ATWS-1716	E14-76-S1	216.8	216.8	14	Waterbody Crossing
ATWS-2130	E14-76-S1	216.8	216.8	16	Waterbody Crossing
ATWS-1715	E14-76-S1	216.8	216.9	12	Waterbody Crossing
ATWS-1718	E14-77-S1	217	217	12	Road and Waterbody Crossing
ATWS-1719	E14-77-S1	217	217	23	Road and Waterbody Crossing
ATWS-1723	E14-145-S1	217.6	217.6	12	Road and Waterbody Crossing
ATWS-1722	E14-145-S1	217.6	217.6	30	Road and Waterbody Crossing
ATWS-1725	E14-171-S1	217.9	218.2	18	Waterbody Crossing
ATWS-1726	E14-171-S1	218.2	218.8	15	Waterbody Crossing
ATWS-1727	E14-70-S1	218.7	218.8	41	Road and Waterbody Crossing
ATWS-1728	E14-70-S1	218.8	218.8	17	Road and Waterbody Crossing
ATWS-1732	AS-LE-48	219.4	219.5	22	Waterbody Crossing
ATWS-1733	AS-LE-48	219.5	219.7	12	Waterbody Crossing
ATWS-1735	E14-146-S1	220.1	220.1	26	Road and Waterbody Crossing
ATWS-1736	E14-146-S1	220.1	220.1	12	Road and Waterbody Crossing
ATWS-1738	E14-147-S1	220.3	220.3	13	Waterbody Crossing
ATWS-2131	E14-147-S1	220.3	220.3	14	Waterbody Crossing
ATWS-2043	E14-147-S1	220.4	220.4	11	Waterbody Crossing
ATWS-1741	E14-127-S1	220.7	220.7	10	Waterbody Crossing
ATWS-1742	E14-127-S1	220.8	220.8	32	Waterbody Crossing
ATWS-1744	E14-126-S1	220.9	221	11	Waterbody Crossing
ATWS-1745	E14-126-S1	221	221	33	Road and Waterbody Crossing
ATWS-1746	E14-74-S1	221	221.1	41	Waterbody Crossing
ATWS-1747	E14-74-S1	221.2	221.3	25	Waterbody Crossing
ATWS-1748	E14-75-S1	221.3	221.3	19	Road and Waterbody Crossing
ATWS-1749	E14-75-S1	221.3	221.3	10	Road and Waterbody Crossing
ATWS-1753	E14-60-S1	221.9	222.5	13	Road and Waterbody Crossing
ATWS-1754	E14-60-S1	222.5	222.5	12	Road and Waterbody Crossing
ATWS-1758	AS-LE-12	223.1	223.6	13	Waterbody Crossing
ATWS-1758	E14-149-S1	223.1	223.6	13	Waterbody Crossing
ATWS-1759	E14-150-S1	223.6	223.7	18	Road and Waterbody Crossing
ATWS-1760	E14-150-S1	223.7	223.7	11	Road and Waterbody Crossing
ATWS-1762	E14-87-S1	223.8	223.8	23	Waterbody Crossing



TABLE 2.3-12

Additional Temporary Workspace within 50 feet of Waterbodies for the NEXUS Project Pipeline Facilities

State/ Facility/ ATWS Name	Waterbody ID	Milepost Start a/	Milepost End a/	Distance from Resource Area (Feet)	ATWS Justification	
ATWS-1766	E14-61-S1	224.1	224.1	12	Waterbody Crossing	
ATWS-1765	E14-61-S1	224.2	224.2	12	Waterbody Crossing	
ATWS-1771	E14-62-S1	224.7	224.7	12	Waterbody Crossing	
ATWS-1772	E14-62-S1	224.7	224.7	30	Waterbody Crossing	
ATWS-1776	E14-63-S1	225	225	21	Waterbody Crossing	
ATWS-1778	E14-63-S1	225	225.6	37	Waterbody Crossing	
ATWS-1783	AS-MO-1	225.7	225.7	11	Waterbody Crossing	
ATWS-1784	AS-MO-1	225.7	225.7	11	Waterbody Crossing	
ATWS-1786	E14-65-S1	226.2	226.2	11	Waterbody Crossing	
ATWS-1787	E14-65-S1	226.2	226.2	19	Waterbody Crossing	
ATWS-1792	E14-66-S1	226.6	226.7	21	Waterbody Crossing	
ATWS-2098	E14-67-S1	226.7	226.8	27	Waterbody Crossing	
ATWS-2098	E14-66-S1	226.7	226.8	15	Waterbody Crossing	
ATWS-1793	E14-67-S1	226.8	226.9	13	Waterbody Crossing	
ATWS-2071	E14-86-S2	227.3	227.4	0	Waterbody Crossing	
ATWS-1799	AS-MO-11	227.4	227.6	10	Waterbody Crossing	
ATWS-1800	AS-MO-2	227.6	228	24	Waterbody Crossing	
ATWS-1800	AS-MO-11	227.6	228	7	Waterbody Crossing	
ATWS-2099	AS-MO-2	228	228.2	15	Waterbody Crossing	
ATWS-1805	AS-MO-10A	228.3	228.6	27	Road and Waterbody Crossir	
ATWS-1803	AS-MO-10A	228.5	228.6	25	Road and Waterbody Crossir	
ATWS-1804	AS-MO-10	228.6	228.7	33	Waterbody Crossing	
ATWS-1804	AS-MO-10A	228.6	228.7	24	Waterbody Crossing	
ATWS-1802	AS-MO-10A	228.6	228.7	28	Road and Waterbody Crossir	
ATWS-1811	E14-72-S1	229.1	229.2	22	Road and Waterbody Crossir	
ATWS-2188	E14-72-S1	229.2	229.4	16	Waterbody Crossing	
ATWS-2189	AS-MO-3	229.5	229.7	17	Waterbody Crossing	
ATWS-1814	AS-MO-3	229.7	230.2	35	Waterbody Crossing	
ATWS-1819	E14-157-S1	230.6	231.7	42	Waterbody Crossing	
ATWS-1658	E14-157-S1	231.7	231.8	22	Waterbody Crossing	
ATWS-1657	E14-159-S1	232.1	232.5	11	Road and Waterbody Crossir	
ATWS-1820	E14-159-S1	232.5	232.6	28	Road and Waterbody Crossir	
ATWS-1824	E14-88-S1	232.9	233.4	34	Road and Waterbody Crossir	



TABLE 2.3-12

Additional Temporary Workspace within 50 feet of Waterbodies for the NEXUS Project Pipeline Facilities

State/ Facility/ ATWS Name	Waterbody ID	Milepost Start a/	Milepost End a/	Distance from Resource Area (Feet)	ATWS Justification	
ATWS-1827	E14-89-S1	233.5	233.6	29	Road and Waterbody Crossin	
ATWS-1828	E14-90-S1	233.6	233.6	12	Road and Waterbody Crossin	
ATWS-1825	E14-165-S1	233.6	233.7	20	Road and Waterbody Crossir	
ATWS-1829	E14-91-S1	233.8	233.9	11	Waterbody Crossing	
ATWS-1831	E14-91-S1	233.9	234	22	Waterbody Crossing	
ATWS-1833	E14-92-S1	234	234	19	Waterbody Crossing	
ATWS-1832	E14-92-S1	234.1	234.1	32	Waterbody Crossing	
ATWS-1835	AS-WA-2	234.2	234.2	14	Waterbody Crossing	
ATWS-1837	E14-93-S1	234.3	234.8	19	Waterbody Crossing	
ATWS-1838	E14-93-S1	234.9	235	13	Waterbody Crossing	
ATWS-1840	E14-128-S1	235.1	235.3	26	Waterbody Crossing	
ATWS-1843	AS-WA-3	235.5	235.7	35	Waterbody Crossing	
ATWS-1843	E14-160-S1	235.5	235.7	35	Waterbody Crossing	
ATWS-1844	AS-WA-3	235.7	235.9	14	Waterbody Crossing	
ATWS-1848	E14-131-S1	236.3	236.3	27	Waterbody Crossing	
ATWS-1849	E14-131-S1	236.3	236.3	12	Waterbody Crossing	
ATWS-1850	E14-132-S1	236.3	236.5	25	Waterbody Crossing	
ATWS-1851	E14-132-S1	236.5	236.6	25	Waterbody Crossing	
ATWS-1668	E14-132-S1	236.6	236.9	32	Constructability	
ATWS-0483	E14-161-S1	237.9	237.9	11	Road and Waterbody Crossii	
ATWS-0482	E14-161-S1	237.9	238	23	Road and Waterbody Crossii	
ATWS-1653	E14-162-S1	238.8	239	37	Waterbody Crossing	
ATWS-1858	E14-162-S1	239	239.1	32	Waterbody Crossing	
ATWS-2092	E14-99-S1	239.3	239.3	20	Waterbody Crossing	
ATWS-0481	E14-99-S1	239.3	239.3	35	Waterbody Crossing	
ATWS-1654	E14-99-S1	239.3	239.4	30	Waterbody Crossing	
ATWS-1651	AS-WA-5	239.6	239.8	19	Waterbody Crossing	
ATWS-0479	E14-176-S1	240.7	240.7	28	Road and Waterbody Crossin	
ATWS-0478	E14-176-S1	240.8	240.8	12	Road and Waterbody Crossin	
ATWS-1645	AS-WA-49	240.8	241.4	16	Waterbody Crossing	
ATWS-1861	AS-WA-49	241.4	241.5	13	Waterbody Crossing	
ATWS-1862	AS-WA-46	242.6	242.7	22	Waterbody Crossing	
ATWS-1633	E14-102-S1	242.9	243	35	Waterbody Crossing	



TABLE 2.3-12

Additional Temporary Workspace within 50 feet of Waterbodies for the NEXUS Project Pipeline Facilities

State/ Facility/ ATWS Name	Waterbody ID	Milepost Start a/	Milepost End a/	Distance from Resource Area (Feet)	ATWS Justification	
ATWS-1864	AS-WA-16	248.7	248.8	30	Road and Waterbody Crossing	
ATWS-1629	AS-WA-16A	248.8	248.8	0	Road and Waterbody Crossing	
ATWS-1629	AS-WA-17	248.8	248.8	14	Road and Waterbody Crossing	
ATWS-0497	AS-WA-18	248.9	249	19	Constructability	



TABLE 2.4-1 Wetlands Crossed by the NEXUS Project a/ **Total Wetland Total Forested** Facility, State, Crossing **Total Forested Total Wetland** Wetland Acreage Acreage County, Wetland ID Classification c/ Length **Wetland Acreage** Milepost Impacted by O&M Acreage Impacted e/ Impacted by b/ (feet) d/ Impacted e/ O&M f/ **Mainline** Ohio Columbiana AWB-CO-19 PFO 0.1 118 0.2 0.1 0.1 0.2 PEM/PSS AWB-CO-18 0.68 244 0.3 0.0 0.3 0.0 PEM/PSS 66 AWB-CO-16 1.19 0.1 0.0 0.1 0.0 A14-4 PEM 1.81 268 0.9 0.0 0.3 0.0 A14-5 PEM 1.85 9 0.0 0.0 0.0 0.0 A14-5 PEM 1.88 156 0.3 0.0 0.2 0.0 PEM A14-5 1.97 44 0.0 0.0 0.0 0.0 A14-5 PEM 2.04 189 0.2 0.0 0.2 0.0 PEM A14-5 2.13 91 0.1 0.0 0.1 0.0

0.0

0.0

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0.0

0.8

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0.5

0.1

0.0

0.1

0.0

0.1

0.0

A14-9 A14-10

A14-10

A14-10

A14-10

A14-11

A14-126

A14-127

A14-12

A14-12

A14-125

PEM

PEM/PSS

PEM/PSS

PEM/PFO/PSS

PEM/PSS

PEM

PEM

PEM

PEM

PEM

PEM

4.73

4.78

4.8

4.82

4.91

5.15

5.49

5.56

6.28

6.31

6.72

27

21

123

20

472

87

100

98

141

113

46

0.0

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TABLE 2.4-1 Wetlands Crossed by the NEXUS Project a/

Facility, State, County, Wetland ID b/	Classification c/	Milepost	Crossing Length (feet) d/	Total Wetland Acreage Impacted e/	Total Forested Wetland Acreage Impacted e/	Total Wetland Acreage Impacted by O&M f/	Total Forested Wetland Acreage Impacted by O&M f/
A14-192	PEM	7.33	16	0.0	0.0	0.0	0.0
A14-190 / AWB-CO- 7	PEM/PSS	7.7	195	0.3	0.0	0.2	0.0
AWB-CO-7	PEM/PSS/PFO	7.73	69	0.1	0.1	0.1	0.0
AWB-CO-9	PEM/PSS	7.89	38	0.1	0.0	0.0	0.0
A14-33	PEM	8.88	136	0.1	0.0	0.0	0.0
A14-193	PEM/PFO	9.18	98	0.2	0.1	0.1	0.1
A14-14	PEM	10.14	139	0.2	0.0	0.1	0.0
A14-15	PEM	10.37	22	0.0	0.0	0.0	0.0
AWB-CO-11	PEM/PSS	10.78	202	0.3	0.0	0.2	0.0
AWB-CO-11	PEM/PSS	10.8	23	0.0	0.0	0.0	0.0
A14-16	PEM/PSS	11.06	208	0.4	0.0	0.3	0.0
AWB-CO-12	PSS	11.2	222	0.1	0.0	0.0	0.0
AWB-CO-12	PSS	11.24	14	0.0	0.0	0.0	0.0
Stark							
AWB-ST-2	PEM/PFO	13.22	127	0.2	0.1	0.1	0.1
AWB-ST-3	PEM/PSS/PFO	13.37	33	0.0	0.0	0.0	0.0
AWB-ST-3	PEM/PSS/PFO	13.48	53	0.0	0.0	0.0	0.0
A14-20	PEM	14.29	58	0.0	0.0	0.0	0.0
A14-21	PEM	14.61	396	0.7	0.0	0.4	0.0
AWB-ST-4	PEM/PSS/PFO	14.92	499	0.8	0.4	0.5	0.3
AWB-ST-20	PFO	15.35	70	0.1	0.1	0.1	0.1
AWB-ST-6	PEM/PSS	16.52	63	0.0	0.0	0.0	0.0
AWB-ST-7	PFO	16.65	130	0.1	0.1	0.1	0.1



TABLE 2.4-1 Wetlands Crossed by the NEXUS Project a/

Facility, State, County, Wetland ID b/	Classification c/	Milepost	Crossing Length (feet) d/	Total Wetland Acreage Impacted e/	Total Forested Wetland Acreage Impacted e/	Total Wetland Acreage Impacted by O&M f/	Total Forested Wetland Acreage Impacted by O&M f/
AWB-ST-7	PFO	16.76	621	1.0	1.0	0.6	0.6
AWB-ST-7	PFO	16.77	16	0.0	0.0	0.0	0.0
A14-107	PEM	16.79	25	0.0	0.0	0.0	0.0
A14-106	PSS	17.13	86	0.1	0.0	0.1	0.0
A14-104	PEM	17.48	22	0.0	0.0	0.0	0.0
AWB-ST-8	PFO	18.34	10	0.0	0.0	0.0	0.0
AWB-ST-8	PFO	18.35	46	0.1	0.1	0.0	0.0
A14-102	PEM	18.63	78	0.1	0.0	0.0	0.0
AWB-ST-11	PFO	19.43	277	0.0	0.0	0.0	0.0
AWB-ST-11	PFO	19.47	61	0.9	0.9	0.4	0.4
A14-172	PEM/PFO	19.6	427	0.9	0.9	0.5	0.5
A14-173	PFO	19.7	71	0.1	0.1	0.1	0.1
A14-176	PFO	20	3	0.0	0.0	0.0	0.0
A14-176	PFO	20.05	43	0.0	0.0	0.0	0.0
A14-176	PFO	20.05	69	0.0	0.0	0.0	0.0
A14-176	PFO	20.08	77	0.0	0.0	0.0	0.0
A14-171	PFO	20.64	103	0.1	0.1	0.1	0.1
AWB-ST-12	PEM/PSS	20.72	60	0.1	0.0	0.1	0.0
A14-161	PFO	23.86	179	0.1	0.1	0.1	0.1
A14-161	PFO	23.88	67	0.0	0.0	0.0	0.0
A14-167	PSS	24.72	41	0.1	0.0	0.0	0.0
A14-100	PEM	25.96	178	0.3	0.0	0.2	0.0
A14-100	PEM	25.98	45	0.0	0.0	0.0	0.0



TABLE 2.4-1 Wetlands Crossed by the NEXUS Project a/

Facility, State, County, Wetland ID b/	Classification c/	Milepost	Crossing Length (feet) d/	Total Wetland Acreage Impacted e/	Total Forested Wetland Acreage Impacted e/	Total Wetland Acreage Impacted by O&M f/	Total Forested Wetland Acreage Impacted by O&N f/
A14-100	PEM	25.99	74	0.1	0.0	0.0	0.0
A14-101	PEM	26.11	145	0.1	0.0	0.0	0.0
A14-97	PEM/PFO	26.45	59	0.0	0.0	0.0	0.0
A14-97	PEM/PFO	26.51	130	0.2	0.0	0.1	0.0
A14-36	PEM	26.74	68	0.1	0.0	0.0	0.0
A14-34	PEM/PFO/PSS	27.03	350	0.5	0.3	0.3	0.2
A14-34	PEM/PFO/PSS	27.08	44	0.0	0.0	0.0	0.0
A14-35	PFO	27.1	17	0.0	0.0	0.0	0.0
A14-34 / AWB-ST- 13	PEM/PSS	27.22	380	0.7	0.0	0.4	0.0
A14-168 / AWB-ST- 27	PEM/PFO/PSS	28.17	156	0.2	0.2	0.2	0.2
A14-168	PEM/PSS	28.17	1	0.0	0.0	0.0	0.0
AWB-ST-14	PFO	28.56	183	0.5	0.5	0.2	0.2
AWB-ST-18	PEM/PSS/PFO	29.05	672	1.1	0.7	0.7	0.5
AWB-ST-26	PEM/PSS/PFO	29.28	363	0.5	0.4	0.4	0.2
AWB-ST-20	PFO	30.51	73	0.1	0.1	0.1	0.1
AWB-ST-21	PEM/PSS/PFO	30.6	174	0.2	0.2	0.1	0.1
AWB-ST-21	PEM/PSS	30.61	23	0.0	0.0	0.0	0.0
A14-164	PEM	31.24	209	0.3	0.0	0.2	0.0
A14-164	PEM	31.39	506	0.6	0.0	0.3	0.0
AWB-ST-23	PEM/PSS	32.75	1048	4.0	0.0	1.1	0.0
Summit							
AWB-SU-1	PEM/PSS	33.01	923	1.8	0.0	1.0	0.0



TABLE 2.4-1 Wetlands Crossed by the NEXUS Project a/

Facility, State, County, Wetland ID b/	Classification c/	Milepost	Crossing Length (feet) d/	Total Wetland Acreage Impacted e/	Total Forested Wetland Acreage Impacted e/	Total Wetland Acreage Impacted by O&M f/	Total Forested Wetland Acreage Impacted by O&M f/
AWB-SU-2	PEM/PSS	33.39	1	0.0	0.0	0.0	0.0
AWB-SU-2	PEM/PSS/PFO	33.4	78	0.0	0.0	0.0	0.0
AWB-SU-2	PEM/PSS/PFO	33.5	280	0.2	0.0	0.1	0.0
AWB-SU-3	PEM/PSS/PFO	33.73	405	0.6	0.5	0.4	0.4
AWB-SU-4	PEM/PSS/PFO	33.98	543	0.5	0.4	0.3	0.3
AWB-SU-5	PEM/PFO	34.29	296	0.4	0.2	0.3	0.2
AWB-SU-5	PEM/PFO	34.38	259	0.2	0.1	0.1	0.1
AWB-SU-5	PEM	34.39	36	0.0	0.0	0.0	0.0
AWB-SU-6	PEM/PSS/PFO	34.54	70	0.1	0.0	0.1	0.0
AWB-SU-6	PEM/PSS	34.61	173	0.1	0.0	0.0	0.0
AWB-SU-7	PEM/PSS	34.65	18	0.0	0.0	0.0	0.0
AWB-SU-43	PEM/PSS	35.24	93	0.1	0.0	0.0	0.0
AWB-SU-43	PEM/PSS/PFO	35.38	774	0.7	0.1	0.3	0.1
A14-118 / AWB-SU- 8	PEM	35.84	323	0.3	0.0	0.1	0.0
A14-112	PEM/PSS	37.47	589	1.0	0.0	0.6	0.0
A14-112	PEM/PSS	37.48	73	0.0	0.0	0.0	0.0
A14-112	PEM/PSS	37.53	145	0.2	0.0	0.2	0.0
A14-112	PEM/PSS	37.55	108	0.1	0.0	0.0	0.0
A14-112	PEM/PSS	37.73	286	0.5	0.0	0.3	0.0
A14-112 / AWB-SU- 12	PEM/PSS	37.79	403	0.6	0.0	0.4	0.0
AWB-SU-13	PEM/PSS	38	245	0.5	0.0	0.3	0.0
AWB-SU-13	PEM/PSS	38.04	190	0.4	0.0	0.2	0.0



TABLE 2.4-1 Wetlands Crossed by the NEXUS Project a/

Facility, State, County, Wetland ID b/	Classification c/	Milepost	Crossing Length (feet) d/	Total Wetland Acreage Impacted e/	Total Forested Wetland Acreage Impacted e/	Total Wetland Acreage Impacted by O&M f/	Total Forested Wetland Acreage Impacted by O&M f/
AWB-SU-13	PEM/PSS	38.2	937	1.5	0.0	1.0	0.0
AWB-SU-13	PEM/PSS	38.3	210	0.3	0.0	0.2	0.0
AWB-SU-14	PEM/PSS	38.75	72	0.1	0.0	0.1	0.0
AWB-SU-14	PEM/PSS	38.79	116	0.2	0.0	0.1	0.0
AWB-SU-17	PEM/PSS	39.79	427	0.7	0.0	0.5	0.0
AWB-SU-17 / A14- 122	PEM/PSS	39.85	659	1.1	0.0	0.8	0.0
A14-123	PEM	40.21	112	0.1	0.0	0.0	0.0
AWB-SU-22	PEM/PSS/PFO	41.86	213	0.3	0.2	0.2	0.2
AWB-SU-22	PEM/PSS	41.87	30	0.0	0.0	0.0	0.0
AWB-SU-21	PEM/PSS	41.93	88	0.1	0.0	0.1	0.0
AWB-SU-23	PEM/PSS	42.07	67	0.1	0.0	0.0	0.0
AWB-SU-24	PEM/PFO	43.13	441	0.6	0.6	0.5	0.5
B14-1	PEM/PFO	43.26	455	0.7	0.7	0.5	0.5
B14-1	PEM	43.29	117	0.2	0.0	0.0	0.0
B14-1	PEM	43.38	350	0.8	0.0	0.4	0.0
B14-1	PEM	43.39	16	0.0	0.0	0.0	0.0
AWB-SU-26	PEM	43.53	147	0.1	0.0	0.0	0.0
AWB-SU-27	PEM/PSS/PFO	43.63	233	0.2	0.0	0.2	0.0
AWB-SU-28	PEM/PSS/PFO	43.72	44	0.1	0.1	0.0	0.0
AWB-SU-29	PEM/PFO	43.87	55	0.0	0.0	0.0	0.0
AWB-SU-30	PEM	44.12	65	0.0	0.0	0.0	0.0
AWB-SU-31	PEM	44.72	52	0.0	0.0	0.0	0.0
AWB-SU-33	PEM	44.74	29	0.0	0.0	0.0	0.0



TABLE 2.4-1 Wetlands Crossed by the NEXUS Project a/

Facility, State, County, Wetland ID b/	Classification c/	Milepost	Crossing Length (feet) d/	Total Wetland Acreage Impacted e/	Total Forested Wetland Acreage Impacted e/	Total Wetland Acreage Impacted by O&M f/	Total Forested Wetland Acreage Impacted by O&M f/
AWB-SU-34	PEM/PSS	44.75	21	0.0	0.0	0.0	0.0
AWB-SU-34	PEM/PSS	44.76	95	0.1	0.0	0.0	0.0
AWB-SU-36 ^{HDD}	PEM	45.97	63	0.0	0.0	0.0	0.0
AWB-SU-37 ^{HDD}	PEM	46.02	15	0.0	0.0	0.0	0.0
AWB-SU-38 ^{HDD}	PEM/PSS	46.04	32	0.0	0.0	0.0	0.0
AWB-SU-39	PEM	46.51	24	0.0	0.0	0.0	0.0
AWB-SU-40	PEM	46.75	31	0.0	0.0	0.0	0.0
AWB-SU-41	PEM	46.89	85	0.1	0.0	0.1	0.0
AWB-SU-42	PEM	46.97	40	0.0	0.0	0.0	0.0
A14-41	PEM/PFO/PSS	47.45	124	0.1	0.1	0.1	0.0
A14-41	PEM/PSS	47.51	160	0.1	0.0	0.0	0.0
A14-42	PEM	47.81	126	0.1	0.0	0.0	0.0
A14-42	PEM	47.84	49	0.0	0.0	0.0	0.0
A14-42	PEM	47.91	13	0.0	0.0	0.0	0.0
Wayne							
AWB-WE-4	PEM/PSS	48.94	55	0.1	0.0	0.1	0.0
AWB-WE-8	PEM	49.66	26	0.0	0.0	0.0	0.0
AWB-WE-9	PEM/PFO	49.88	83	0.1	0.1	0.1	0.1
A14-124	PEM/PFO/PSS	50.32	375	0.6	0.1	0.4	0.1
A14-124	PEM/PSS	50.32	22	0.0	0.0	0.0	0.0
AWB-WE-10	PEM	50.62	108	0.1	0.0	0.0	0.0
AWB-WE-13	PFO	50.85	27	0.0	0.0	0.0	0.0
AWB-WE-15	PFO	51.1	34	0.0	0.0	0.0	0.0



TABLE 2.4-1 Wetlands Crossed by the NEXUS Project a/

Facility, State, County, Wetland ID b/	Classification c/	Milepost	Crossing Length (feet) d/	Total Wetland Acreage Impacted e/	Total Forested Wetland Acreage Impacted e/	Total Wetland Acreage Impacted by O&M f/	Total Forested Wetland Acreage Impacted by O&M f/
AWB-WE-15	PFO	51.11	39	0.0	0.0	0.0	0.0
A14-92	PEM	51.59	80	0.1	0.0	0.1	0.0
AWB-WE-14	PEM/PFO	51.81	225	0.1	0.1	0.1	0.1
AWB-WE-16	PEM/PFO	52.61	48	0.1	0.1	0.0	0.0
AWB-WE-16	PEM/PFO	52.63	47	0.0	0.0	0.0	0.0
AWB-WE-17	PEM	53	47	0.1	0.0	0.0	0.0
AWB-WE-17	PEM	53.01	15	0.0	0.0	0.0	0.0
AWB-WE-17	PEM	53.02	18	0.0	0.0	0.0	0.0
AWB-WE-20	PEM	53.81	265	0.3	0.0	0.2	0.0
AWB-WE-22	PEM	53.87	31	0.0	0.0	0.0	0.0
Medina							
AWB-ME-5	PEM	55	173	0.3	0.0	0.2	0.0
AWB-ME-5	PEM	55.03	27	0.0	0.0	0.0	0.0
B14-7	PEM	55.45	367	0.4	0.0	0.3	0.0
AWB-ME-14	PEM/PSS	56.9	75	0.0	0.0	0.1	0.0
AWB-ME-14	PEM/PSS	56.92	448	0.6	0.0	0.3	0.0
A14-39	PEM	57.74	11	0.0	0.0	0.0	0.0
A14-39	PEM	57.74	10	0.0	0.0	0.0	0.0
A14-39	PEM	57.74	2	0.0	0.0	0.0	0.0
AWB-ME-20	PFO	59.1	235	0.2	0.2	0.1	0.1
AWB-ME-91	PEM	59.68	407	0.5	0.0	0.3	0.0
AWB-ME-91	PEM	59.75	28	0.0	0.0	0.0	0.0
AWB-ME-91	PEM/PFO	59.78	122	0.2	0.2	0.1	0.1



TABLE 2.4-1
Wetlands Crossed by the NEXUS Project a/

Facility, State, County, Wetland ID b/	Classification c/	Milepost	Crossing Length (feet) d/	Total Wetland Acreage Impacted e/	Total Forested Wetland Acreage Impacted e/	Total Wetland Acreage Impacted by O&M f/	Total Forested Wetland Acreage Impacted by O&M
AWB-ME-92	PEM	59.9	270	0.4	0.0	0.3	0.0
A14-114	PEM	61.56	39	0.1	0.0	0.0	0.0
AWB-ME-23	PEM	62.95	19	0.0	0.0	0.0	0.0
B14-4	PFO/PSS	63.16	82	0.1	0.1	0.0	0.0
B14-4	PFO/PSS	63.17	55	0.1	0.1	0.1	0.1
B14-4	PSS	63.19	9	0.0	0.0	0.0	0.0
A14-129	PEM	63.54	112	0.1	0.0	0.0	0.0
AWB-ME-26	PFO	64.1	162	0.1	0.1	0.0	0.0
AWB-ME-26	PFO	64.13	28	0.0	0.0	0.0	0.0
AWB-ME-26	PFO	64.16	23	0.0	0.0	0.0	0.0
AWB-ME-26	PFO	64.17	16	0.0	0.0	0.0	0.0
AWB-ME-27	PFO	64.35	46	0.0	0.0	0.0	0.0
AWB-ME-27	PFO	64.36	75	0.1	0.1	0.1	0.1
AWB-ME-29	PFO	64.45	43	0.0	0.0	0.0	0.0
AWB-ME-30	PFO	64.54	69	0.1	0.1	0.1	0.1
AWB-ME-31	PEM/PSS/PFO	64.7	186	0.3	0.3	0.2	0.2
AWB-ME-31	PEM/PSS/PFO	64.74	53	0.1	0.1	0.0	0.0
AWB-ME-32	PFO	64.82	86	0.1	0.1	0.1	0.1
AWB-ME-33	PEM/PFO	65.08	10	0.1	0.1	0.0	0.0
AWB-ME-33	PEM/PFO	65.08	54	0.0	0.0	0.0	0.0
AWB-ME-35	PEM/PSS/PFO	65.42	46	0.0	0.0	0.0	0.0
AWB-ME-35	PEM/PSS/PFO	65.49	115	0.2	0.0	0.1	0.0
AWB-ME-36	PEM/PSS	65.59	144	0.2	0.0	0.1	0.0



TABLE 2.4-1 Wetlands Crossed by the NEXUS Project a/

Facility, State, County, Wetland ID b/	Classification c/	Milepost	Crossing Length (feet) d/	Total Wetland Acreage Impacted e/	Total Forested Wetland Acreage Impacted e/	Total Wetland Acreage Impacted by O&M f/	Total Forested Wetland Acreage Impacted by O&M f/
AWB-ME-37	PFO	65.69	113	0.2	0.2	0.1	0.1
AWB-ME-37	PFO	65.71	259	0.2	0.2	0.0	0.0
AWB-ME-37	PFO	65.78	123	0.2	0.2	0.1	0.1
AWB-ME-37	PFO	65.8	117	0.2	0.2	0.1	0.1
AWB-ME-38	PEM/PSS	65.86	170	0.1	0.0	0.0	0.0
AWB-ME-39	PEM/PSS	66.05	30	0.0	0.0	0.0	0.0
AWB-ME-39	PEM/PSS	66.05	2	0.0	0.0	0.0	0.0
AWB-ME-39	PEM/PSS	66.08	25	0.0	0.0	0.0	0.0
AWB-ME-39	PEM/PSS	66.13	50	0.1	0.0	0.0	0.0
AWB-ME-39	PEM/PSS	66.24	107	0.0	0.0	0.0	0.0
AWB-ME-39	PEM/PSS	66.3	317	0.2	0.0	0.1	0.0
AWB-ME-39	PEM/PSS	66.32	32	0.0	0.0	0.0	0.0
AWB-ME-39	PEM/PSS	66.37	87	0.0	0.0	0.0	0.0
AWB-ME-39	PEM/PSS	66.38	78	0.1	0.0	0.1	0.0
AWB-ME-39	PEM/PSS	66.4	71	0.1	0.0	0.1	0.0
AWB-ME-40	PEM/PSS	66.65	59	0.1	0.0	0.1	0.0
AWB-ME-40	PEM/PSS	66.66	55	0.1	0.0	0.1	0.0
AWB-ME-41	PFO	66.84	105	0.0	0.0	0.0	0.0
AWB-ME-41	PFO	66.89	41	0.0	0.0	0.0	0.0
AWB-ME-41	PFO	66.94	218	0.2	0.2	0.2	0.2
AWB-ME-41	PFO	66.99	210	0.3	0.3	0.2	0.2
AWB-ME-43	PEM	67.32	51	0.0	0.0	0.0	0.0
AWB-ME-44	PEM/PSS	67.39	198	0.2	0.0	0.2	0.0



TABLE 2.4-1 Wetlands Crossed by the NEXUS Project a/

Facility, State, County, Wetland ID b/	Classification c/	Milepost	Crossing Length (feet) d/	Total Wetland Acreage Impacted e/	Total Forested Wetland Acreage Impacted e/	Total Wetland Acreage Impacted by O&M f/	Total Forested Wetland Acreage Impacted by O&M
AWB-ME-44	PEM/PSS	67.46	112	0.1	0.0	0.1	0.0
AWB-ME-45	PEM	67.75	82	0.2	0.0	0.1	0.0
A14-48	PEM/PFO	69.49	70	0.0	0.0	0.0	0.0
AWB-ME-51	PEM/PSS	69.57	27	0.0	0.0	0.0	0.0
AWB-ME-52	PEM/PSS	69.76	20	0.0	0.0	0.0	0.0
AWB-ME-53	PEM/PSS/PFO	69.96	145	0.1	0.1	0.1	0.1
AWB-ME-53	PEM/PSS	70.15	25	0.0	0.0	0.0	0.0
AWB-ME-53	PEM/PSS	70.27	280	0.2	0.0	0.2	0.0
AWB-ME-58	PEM/PSS	70.81	38	0.0	0.0	0.0	0.0
AWB-ME-58	PEM/PSS	70.82	30	0.0	0.0	0.0	0.0
AWB-ME-58	PEM/PSS	70.87	28	0.0	0.0	0.0	0.0
AWB-ME-58	PEM/PSS/PFO	70.93	117	0.2	0.2	0.1	0.1
AWB-ME-58	PEM/PSS/PFO	70.94	50	0.0	0.0	0.0	0.0
AWB-ME-58	PEM/PSS/PFO	70.94	3	0.0	0.0	0.0	0.0
B14-8	PEM	70.99	56	0.0	0.0	0.0	0.0
AWB-ME-64	PFO	72.52	65	0.1	0.1	0.0	0.0
AWB-ME-71	PEM/PFO	73.63	68	0.1	0.1	0.1	0.1
AWB-ME-73	PEM	73.81	80	0.0	0.0	0.0	0.0
AWB-ME-74	PEM/PFO	74.09	77	0.1	0.1	0.1	0.1
AWB-ME-74	PEM/PFO	74.14	330	0.4	0.4	0.3	0.3
AWB-ME-90	PEM	74.72	64	0.1	0.0	0.1	0.0
AWB-ME-90	PEM	74.81	31	0.0	0.0	0.0	0.0
AWB-ME-95	PEM	75.03	28	0.0	0.0	0.0	0.0



TABLE 2.4-1 Wetlands Crossed by the NEXUS Project a/

Facility, State, County, Wetland ID b/	Classification c/	Milepost	Crossing Length (feet) d/	Total Wetland Acreage Impacted e/	Total Forested Wetland Acreage Impacted e/	Total Wetland Acreage Impacted by O&M f/	Total Forested Wetland Acreage Impacted by O&M
AWB-ME-95	PEM	75.1	23	0.0	0.0	0.0	0.0
AWB-ME-99	PEM/PSS	76.22	34	0.0	0.0	0.0	0.0
AWB-LO-1	PEM/PFO	77.06	88	0.1	0.1	0.0	0.0
AWB-LO-1	PEM/PFO	77.18	171	0.2	0.0	0.2	0.0
Lorain							
AWB-LO-1	PEM/PFO	77.2	141	0.2	0.1	0.1	0.1
AWB-LO-1	PEM/PFO	77.24	179	0.2	0.0	0.1	0.0
AWB-LO-1	PEM	77.26	67	0.0	0.0	0.0	0.0
A14-56	PEM/PFO	78.18	331	0.5	0.3	0.3	0.3
A14-58	PEM	78.23	74	0.1	0.0	0.1	0.0
A14-59	PEM/PFO	78.67	119	0.1	0.0	0.0	0.0
AWB-LO-38	PEM	79.16	85	0.1	0.0	0.1	0.0
A14-62	PEM	79.29	21	0.0	0.0	0.0	0.0
A14-63	PEM/PFO	79.4	184	0.1	0.1	0.1	0.1
A14-63	PEM/PFO	79.53	455	0.7	0.6	0.5	0.5
A14-63	PEM/PFO	79.63	129	0.2	0.1	0.1	0.1
AWB-LO-8	PEM	79.93	50	0.0	0.0	0.0	0.0
A14-68	PEM/PFO	80.17	198	0.3	0.3	0.2	0.2
A14-67	PEM/PFO	80.25	42	0.0	0.0	0.0	0.0
A14-67	PEM	80.29	148	0.1	0.0	0.1	0.0
AWB-LO-5	PFO	80.41	366	0.6	0.6	0.4	0.4
AWB-LO-48	PFO	80.95	192	0.2	0.2	0.1	0.1
AWB-LO-48	PFO	80.95	43	0.0	0.0	0.0	0.0



TABLE 2.4-1 Wetlands Crossed by the NEXUS Project a/

Facility, State, County, Wetland ID b/	Classification c/	Milepost	Crossing Length (feet) d/	Total Wetland Acreage Impacted e/	Total Forested Wetland Acreage Impacted e/	Total Wetland Acreage Impacted by O&M f/	Total Forested Wetland Acreage Impacted by O&M f/
AWB-LO-46	PEM	81.55	55	0.0	0.0	0.0	0.0
AWB-LO-9	PEM/PFO	81.64	126	0.2	0.2	0.1	0.1
A14-71	PEM	81.67	162	0.0	0.0	0.0	0.0
A14-71	PEM/PFO	81.8	506	0.6	0.5	0.5	0.5
AWB-LO-10	PEM/PSS/PFO	82.43	82	0.1	0.1	0.0	0.0
AWB-LO-10	PEM/PSS/PFO	82.46	199	0.2	0.2	0.1	0.1
AWB-LO-10	PEM/PSS	82.57	99	0.2	0.0	0.1	0.0
A14-51 ^{HDD}	PEM/PFO	83.22	114	0.0	0.0	0.0	0.0
A14-52 ^{HDD}	PEM/PSS	83.47	352	0.4	0.0	0.4	0.0
A14-73	PEM/PFO	85.26	182	0.2	0.2	0.2	0.2
A14-73	PEM/PFO	85.32	330	0.3	0.3	0.3	0.3
A14-131 / AWB-LO- 15	PFO	87.35	341	0.4	0.4	0.3	0.3
AWB-LO-15	PEM/PFO	87.49	341	0.6	0.5	0.4	0.4
AWB-LO-15	PEM	87.55	64	0.1	0.0	0.0	0.0
AWB-LO-15	PEM	87.7	17	0.0	0.0	0.0	0.0
AWB-LO-17	PEM/PSS	87.93	44	0.1	0.0	0.0	0.0
AWB-LO-22	PEM/PSS	89.17	134	0.5	0.0	0.1	0.0
AWB-LO-22	PEM/PSS	89.19	76	0.1	0.0	0.1	0.0
A14-78	PEM	90.5	200	0.2	0.0	0.0	0.0
A14-178	PEM/PSS	90.73	21	0.0	0.0	0.0	0.0
A14-178	PEM/PSS	90.82	271	0.2	0.0	0.2	0.0
A14-179	PEM/PSS	91.68	67	0.1	0.0	0.0	0.0



TABLE 2.4-1 Wetlands Crossed by the NEXUS Project a/

Facility, State, County, Wetland ID b/	Classification c/	Milepost	Crossing Length (feet) d/	Total Wetland Acreage Impacted e/	Total Forested Wetland Acreage Impacted e/	Total Wetland Acreage Impacted by O&M f/	Total Forested Wetland Acreage Impacted by O&M f/
A14-181	PEM	91.98	125	0.2	0.0	0.1	0.0
A14-181	PEM	92.03	279	0.1	0.0	0.0	0.0
A14-182	PEM	92.26	296	0.5	0.0	0.3	0.0
A14-182	PEM	92.33	327	0.3	0.0	0.3	0.0
A14-141	PEM/PFO	92.66	235	0.4	0.2	0.2	0.2
A14-141	PEM/PFO	92.67	8	0.0	0.0	0.0	0.0
AWB-LO-27	PEM/PSS/PFO	92.81	81	0.1	0.0	0.0	0.0
A14-138 / AWB-LO- 29	PSS/PFO/PEM/PUB	93.3	339	0.9	0.1	0.4	0.1
A14-138	PEM/PFO/PSS/PUB	93.31	30	0.0	0.0	0.0	0.0
A14-142	PEM	93.43	165	0.1	0.0	0.1	0.0
A14-143	PEM	93.51	224	0.2	0.0	0.2	0.0
A14-137	PEM/PSS	93.82	198	0.3	0.0	0.2	0.0
A14-136 / AWB-LO- 30	PEM/PFO	94.2	1595	2.6	0.5	1.8	0.4
A14-184	PFO	95.43	306	0.5	0.5	0.3	0.3
A14-134	PEM	96.12	69	0.1	0.0	0.0	0.0
A14-135	PEM	96.17	34	0.0	0.0	0.0	0.0
A14-80	PFO	96.24	2	0.0	0.0	0.0	0.0
A14-153	PFO	96.8	62	0.0	0.0	0.0	0.0
A14-145	PEM	97.56	41	0.1	0.0	0.0	0.0
A14-150	PFO	98.16	60	0.1	0.1	0.0	0.0
Erie							
AWB-ER-2	PFO	98.67	284	0.3	0.3	0.2	0.2



TABLE 2.4-1 Wetlands Crossed by the NEXUS Project a/

Facility, State, County, Wetland ID b/	Classification c/	Milepost	Crossing Length (feet) d/	Total Wetland Acreage Impacted e/	Wetland Acreade		Total Forested Wetland Acreage Impacted by O&M f/
AWB-ER-2	PFO	98.79	304	0.2 0.2		0.1	0.1
A14-200	PEM	99.71	85	0.1 0.0		0.0	0.0
AWB-ER-100 ^{HDD}	PFO	100.43	94	0.0	0.0	0.0	0.0
AWB-ER-50	PFO	100.88	1610	1.0	1.0	0.0	0.0
AWB-ER-50	PFO	101.2	303	3.1	3.1	2.0	2.0
AWB-ER-50	PFO	101.37	513	0.6	0.6	0.3	0.3
AWB-ER-49	PEM/PSS	101.7	42	0.1	0.0	0.0	0.0
AWB-ER-49	PEM/PSS	101.87	216	0.3	0.3 0.0		0.0
AWB-ER-49	PEM/PSS	101.95	364	1.2	1.2 0.0		0.0
AWB-ER-48	PEM	102.04	35	0.0	0.0 0.0		0.0
AWB-ER-46	PEM/PFO	102.64	835	1.5	1.5	1.1	1.1
AWB-ER-46	PEM/PFO	102.82	300	0.4	0.4	0.3	0.3
AWB-ER-43	PFO	105.43	172	0.3	0.3	0.2	0.2
AWB-ER-42	PEM/PSS	106.25	54	0.1	0.0	0.1	0.0
AWB-ER-41	PEM/PFO	106.77	474	0.8	0.6	0.5	0.4
A14-111	PEM	107.37	66	0.0	0.0	0.0	0.0
A14-154	PEM	108.8	125	0.1	0.0	0.1	0.0
AWB-ER-35	PFO	108.98	30	0.0	0.0	0.0	0.0
A14-187	PEM	109.17	27	0.0	0.0	0.0	0.0
A14-188	PEM/PFO/PSS	109.22	161	0.3	0.3	0.2	0.2
A14-188	PEM/PSS	109.29	225	0.3	0.0	0.2	0.0
AWB-ER-12	PFO	109.81	37	0.1	0.1	0.0	0.0
AWB-ER-12	PFO	109.86	234	0.4	0.4	0.2	0.2



TABLE 2.4-1 Wetlands Crossed by the NEXUS Project a/

Facility, State, County, Wetland ID b/	Classification c/	Milepost	Crossing Length (feet) d/	Total Wetland Acreage Impacted e/	Total Forested Wetland Acreage Impacted e/	Total Wetland Acreage Impacted by O&M f/	Total Forested Wetland Acreage Impacted by O&M f/
AWB-ER-13	PEM/PSS/PFO	110.25	157	0.2	0.2	0.1	0.1
AWB-ER-14	PEM	110.48	42	0.1	0.0	0.0	0.0
AWB-ER-15	PFO/PSS	111.37	85	0.1	0.1	0.1	0.1
AWB-ER-16	PEM/PSS/PFO	111.72	94	0.1	0.1	0.1	0.1
AWB-ER-17	PEM/PSS/PFO	112.15	76	0.1	0.0	0.1	0.0
A14-156	PFO	112.42	115	0.1	0.1	0.1	0.1
AWB-ER-20 ^{HDD}	PEM/PSS	113.01	24	0.0	0.0	0.0	0.0
AWB-ER-21	PEM/PSS/PFO	113.46	54	0.1	0.1	0.1	0.1
AWB-ER-21	PEM/PSS	113.52	56	0.0	0.0	0.0	0.0
A14-95	PEM	114.13	20	0.0	0.0 0.0		0.0
AWB-ER-22	PEM/PSS/PFO	114.35	73	0.1	0.1	0.1	0.0
AWB-ER-22	PEM/PSS/PFO	114.37	131	0.2	0.2	0.1	0.1
AWB-ER-37	PEM/PSS	114.71	71	0.1	0.0	0.1	0.0
AWB-ER-37	PEM/PSS	114.72	42	0.1	0.0	0.0	0.0
AWB-ER-37	PEM/PSS	114.73	4	0.0	0.0	0.0	0.0
AWB-ER-38	PFO/PSS	121.45	45	0.1	0.1	0.0	0.0
AWB-ER-38	PFO/PSS	121.46	26	0.0	0.0	0.0	0.0
Sandusky							
D14-2	PFO	130.01	25	0.0	0.0	0.0	0.0
D14-3	PEM	130.33	181	0.2	0.0	0.2	0.0
D14-3	PEM	130.39	82	0.1	0.0	0.1	0.0
D14-3	PEM/PFO	130.44	72	0.1	0.0	0.0	0.0
D14-3	PEM	130.48	20	0.0	0.0	0.0	0.0



TABLE 2.4-1 Wetlands Crossed by the NEXUS Project a/

Facility, State, County, Wetland ID b/	etland ID Classification c/ Milepost Length Total Wetland Wetland		Total Forested Wetland Acreage Impacted e/	Total Wetland Acreage Impacted by O&M f/	Total Forested Wetland Acreage Impacted by O&M f/		
D14-3	PEM/PFO	130.62	796	1.1	0.6	0.6	0.2
D14-3	PEM/PFO	130.69	133	0.2 0.2		0.1	0.1
AWB-SA-1	PEM	132.59	302	0.4	0.0	0.3	0.0
E14-163 / AWB-SA- 2	PEM/PFO 133.97 539 0.9 0.9		0.9	0.6	0.6		
D14-9	PSS	134.23	282	0.4	0.0	0.3	0.0
D14-10	PEM/PSS 134.66 51 0.1 0.0		0.0	0.1	0.0		
D14-10	PEM/PSS 134.7 49 0.1 0.0		0.0	0.0	0.0		
E14-106	PEM/PFO 136.12 394 0.5 0.5		0.5	0.3	0.3		
AWB-SA-72	PEM	PEM 138.88 9 0.0 0.0		0.0	0.0	0.0	
D14-43 ^{HDD}	PFO	141.23	230	0.0	0.0	0.0	0.0
E14-20	PSS	141.72	1	0.0	0.0	0.0	0.0
E14-20	PFO/PSS	141.81	531	0.8	0.6	0.5	0.4
E14-20	PSS	141.87	322	0.2	0.0	0.2	0.0
D14-37	PEM	146.06	8	0.0	0.0	0.0	0.0
E14-73	PEM/PFO	147.21	170	0.2	0.2	0.2	0.2
E14-43	PEM/PFO	148.3	34	0.0	0.0	0.0	0.0
E14-110	PSS	149.82	7	0.0	0.0	0.0	0.0
AWB-SA-80	PFO	151.39	765	1.2	1.2	0.8	0.8
AWB-SA-81	PEM	151.49	151.49 20 0.0 0.0		0.0	0.0	0.0
AWB-SA-82	PEM	PEM 152.07 8 0.0 0.0		0.0	0.0	0.0	
D14-41 / AWB-SA- 13	PEM/PFO/PSS	EM/PFO/PSS 152.3 875 1.4 1.2		1.2	1.0	0.9	
E14-122	PEM/PFO	152.89	825	0.4	0.4	0.3	0.3



NEXUS PROJECT

Pre-Filing Draft

TABLE 2.4-1 Wetlands Crossed by the NEXUS Project a/

Facility, State, County, Wetland ID b/	Classification c/	Milepost	Crossing Length (feet) d/	Total Wetland Acreage Impacted e/	Total Forested Wetland Acreage Impacted e/	Total Wetland Acreage Impacted by O&M f/	Total Forested Wetland Acreage Impacted by O&M f/
E14-123	PEM/PFO	153.04	37	0.0	0.0	0.0	0.0
E14-123	PEM/PFO	153.09	166	0.5		0.2	0.2
D14-42	PEM/PSS	153.14	222	0.5	0.0	0.2	0.0
D14-25	PEM/PFO	153.52	172	0.2	0.1	0.1	0.1
D14-49	PFO	154.86	408	0.5	0.5	0.3	0.3
D14-48	PEM	155.09	347	0.3	0.0	0.1	0.0
AWB-SA-75 ^{HDD}	PFO	157.41	36	0.0	0.0	0.0	0.0
E14-33 / AWB-SA- 16	PFO	157.89	735	1.2	1.2 1.2		0.6
E14-34 / AWB-SA- 17	PEM/PFO	158.38	636	1.0	.0 1.0		0.7
AWB-SA-17	PFO	158.47	75	0.1	0.1	0.0	0.0
E14-FW1	PFO	158.48	109	0.0	0.0	0.0	0.0
D14-38	PEM	158.65	8	0.0	0.0	0.0	0.0
Wood							
D14-31	PFO	159.66	372	0.6	0.6	0.4	0.4
E14-84	PEM/PFO	160.61	470	0.6	0.6	0.4	0.3
E14-154	PEM/PFO	161.14	677	1.1	1.1	0.7	0.7
E14-152 / AWB-WO- 15	PEM/PFO	161.6	1159	2.5	2.5 1.5		1.0
D14-39	PEM	163.51	38	0.0	0.0	0.0	0.0
E14-52	PEM/PFO	165	637	0.9	0.6	0.6	0.6
E14-41	PEM	165.76	3	0.0	0.0	0.0	0.0
E14-41	PEM	165.79	162	0.1	0.0	0.0	0.0



TABLE 2.4-1 Wetlands Crossed by the NEXUS Project a/

Facility, State, County, Wetland ID	Classification c/ Milepost Crossing Total Wetland Length (feet) d/ Acreage Impacted e/		Total Forested Wetland Acreage Impacted e/	Total Wetland Acreage Impacted by O&M f/	Total Forested Wetland Acreage Impacted by O&M f/		
AWB-WO-19	PFO	175.37 99 0.1 0.1		0.1	0.1	0.1	
Lucas							
AWB-LU-1 ^{HDD}	PFO	176.28	112	0.0	0.0	0.0	0.0
AWB-LU-14	PEM	178	20	0.0	0.0		0.0
AWB-LU-6	PEM/PSS/PFO	180.45	345	0.4	0.4	0.2	0.2
AWB-LU-19	PEM	182.61	211	0.3	0.0	0.2	0.0
AWB-LU-21	PFO	183.75	530	0.9		0.6	0.6
AWB-LU-22	PEM	183.85	125	0.1	0.0	0.0	0.0
Henry							
AWB-HE-1	PEM	184.01	124	0.1	0.0	0.1	0.0
AWB-HE-3	PFO	184.27	89	0.1	0.1	0.1	0.1
AWB-HE-3	PFO	184.35	29	0.0	0.0	0.0	0.0
AWB-HE-4	PFO	184.42	67	0.0	0.0	0.0	0.0
AWB-HE-6	PFO	184.71	344	0.5	0.5	0.4	0.4
AWB-HE-7	PEM	184.88	11	0.0	0.0	0.0	0.0
Fulton							
AWB-FU-70	PFO	188	204	0.3	0.3	0.2	0.2
AWB-FU-64	PEM/PFO	191.27	247	0.3	0.0	0.2	0.0
AWB-FU-69	PEM	193.72	33	0.1	0.0	0.0	0.0
E14-13	PEM	201.86	68	0.1	0.0	0.0	0.0



TABLE 2.4-1 Wetlands Crossed by the NEXUS Project a/

Facility, State, County, Wetland ID b/	D Classification c/ Milepost Length Across Impacted c/ We		Total Forested Wetland Acreage Impacted e/	Total Wetland Acreage Impacted by O&M f/	Total Forested Wetland Acreage Impacted by O&M f/		
Michigan							
Lenawee							
AWB-LE-50	PEM	210.17	7	0.0	0.0	0.0	0.0
E14-170	PFO	217.81	144	0.1	0.1	0.0	0.0
E14-170	PFO	217.83	41	0.0	0.0	0.0	0.0
AWB-LE-49	PFO	219.69	62	0.0	0.0	0.0	0.0
E14-148	PEM/PFO	220.49	489	0.7	0.7	0.4	0.4
E14-148	PEM 220.54 51 0.0 0.0		0.0	0.0			
Monroe							
E14-62	PSS	224.79	28	0.0	0.0	0.0	0.0
AWB-MO-4	PFO	230.33	250	0.4	0.4	0.3	0.3
AWB-MO-6	PEM	230.51	27	0.0	0.0	0.0	0.0
AWB-MO-5	PEM	230.53	21	0.0	0.0	0.0	0.0
AWB-MO-5	PEM	230.56	18	0.0	0.0	0.0	0.0
AWB-MO-8	PEM	230.57	12	0.0	0.0	0.0	0.0
Washtenaw							
E14-89	PFO	233.45	187	0.1	0.1	0.1	0.1
AWB-WA-1	PEM	233.75	30	0.0	0.0	0.0	0.0
AWB-WA-2	PEM	234.2	23	0.0	0.0	0.0	0.0
E14-135	PFO	238.4	553	1.0	1.0	0.6	0.6
E14-135	PFO	238.44	213	0.3	0.3	0.2	0.2
E14-136	PFO	238.54	183	0.3	0.3	0.2	0.2



TABLE 2.4-1 Wetlands Crossed by the NEXUS Project a/

Facility, State, County, Wetland ID b/	Classification c/	Milepost	Crossing Length (feet) d/	Total Wetland Acreage Impacted e/	Total Forested Wetland Acreage Impacted e/	Total Wetland Acreage Impacted by O&M f/	Total Forested Wetland Acreage Impacted by O&M f/	
AWB-WA-4	PEM	PEM 239.48 16 0.0 0.0		0.0	0.0	0.0		
E14-167	PEM	239.48	106	0.0	0.0	0.0	0.0	
AWB-WA-8	PFO	240.11	286	0.5	0.5	0.3	0.3	
E14-164	PFO	240.44	390	0.6	0.6	0.4	0.4	
AWB-WA-47	PEM/PSS	242.33	91	0.1	0.0	0.1	0.0	
E14-180	PFO	243.1	68	0.1	0.1	0.0	0.0	
AWB-WA-9	PEM/PSS	243.28	46	0.1	0.0	0.0	0.0	
E14-155 / AWB-WA- 10	PEM/PSS/PFO	243.43	726	1.1	1.1 1.1		0.8	
E14-156	PEM	243.59	240	0.4	0.4 0.0		0.0	
E14-168	PEM	243.99	498	0.8	0.0	0.5	0.0	
E14-168	PEM	244.08	317	0.4	0.0	0.3	0.0	
AWB-WA-13 ^{HDD}	PEM/PSS	245.08	62	0.0	0.0	0.0	0.0	
AWB-WA-14	PFO	245.24	1	0.0	0.0	0.0	0.0	
AWB-WA-14	PFO	245.3	393	0.6	0.6	0.4	0.4	
AWB-WA-42	PEM/PFO	245.95	20	0.1	0.1	0.0	0.0	
AWB-WA-42	PEM	245.95	11	0.0	0.0	0.0	0.0	
AWB-WA-15	PEM/PSS	248.13	107	0.1	0.0	0.1	0.0	
AWB-WA-16	PEM/PSS	248.5	64	0.0	0.0	0.0	0.0	
AWB-WA-16	PEM/PSS	248.52	75	0.0	0.0	0.0	0.0	
AWB-WA-16	PEM/PSS	248.6	377	0.4	0.0	0.2	0.0	
AWB-WA-16	PEM/PSS	248.68	215	0.2	0.0	0.1	0.0	
AWB-WA-18	PEM/PSS	249	253	0.5	0.0	0.0	0.0	



TABLE 2.4-1
Wetlands Crossed by the NEXUS Project a/

Facility, State, County, Wetland ID	Classification c/	Milepost	Crossing Length (feet) d/	Total Wetland Acreage Impacted e/	Wetland Acreage		Total Forested Wetland Acreage Impacted by O&M f/
AWB-WA-19	PEM/PSS	249.01	117	0.0		0.0	0.0
AWB-WA-18	PEM/PSS	249.03	63	0.0	0.0	0.0	0.0
AWB-WA-18	PEM/PSS	249.03	71	0.0	0.0	0.0	0.0
Ohio							
Columbiana							
Interconnecting Pipeline	to TGP						
Pipeline Facilities Totals	n/a	n/a	76,098	106.2	52.5	63.6	34.1
Aboveground Facilities Totala	-						

a/ Minor discrepancies in totals are due to rounding. Individual impact areas represented as 0.0 are less than a tenth/acre in size, but are accounted for in the Pipeline Facilities Totals.

b/ Facility indicates where a particular wetland is located along Project mainline or aboveground facility. County indicates which county the wetland is located. Wetland ID indicates the project identifier of each wetland crossing. HDD indicates wetland areas that will be crossed using a HDD method and no impacts are proposed at these wetland crossings.

c/ Classifications are based on Cowardin classification system:

PEM - Palustrine emergent wetland

PSS - Palustrine scrub-shrub wetland

PFO - Palustrine forested wetland

PUB - Palustrine unconsolidated bottom

d/ Crossing length is the distance between the enter MP and exit MP.

e/ Total wetland/forested wetland acreage impacted includes impacts associated with all areas within the construction workspace limits, temporary and permanent.

f/ Total wetland/forested wetland acreage impacted by Operation and Maintenance (O&M) includes impacts associated with vegetation maintenance.



TABLE 2.4-2 Summary of Wetlands Affected by Construction and Operation of the NEXUS Project $\underline{a}/$

Facility, County	Total Crossing Length (feet)	Total Wetland Area Affected (acres)	Total Forested Wetland Area Affected (acres)	Wetland Area Affected by Periodic O&M (acres)	Forested Wetland Area Affected by Periodic O&M (acres)
Pipeline Facilities					
Pipeline Subtotal	76,098	106.20	52.47	63.55	34.06
Aboveground Facilities Aboveground Facilities Subtotal Temporary Access Road			-		
Access Road Subtotal	TBD	TBD	TBD	TBD	TBD
PROJECT TOTAL	76,098	106.20	52.47	63.55	34.06

TABLE 2.4-3
Construction Workspace >75 feet within Wetlands for the NEXUS Project Pipeline Facilities

State, Facility, County	Approximate Wetland ID	Milepost Begin a/	Milepost End a/			Classification b/	Justification
Ohio							
<u>Mainline</u>							
Medina	AWB-ME-52	69.8	69.8	14	100	PEM	Railroad Crossing
Sandusky	AWB-SA-82	152.1	152.1	5	100	PEM	County Road
		_					

a/ Approximate milepost along the pipeline rounded to the nearest tenth. b/ Classifications are based on Cowardin classification system.

PEM - Palustrine emergent wetland

PSS - Palustrine scrub-shrub wetland

PFO - Palustrine forested wetland

PUB - Palustrine unconsolidated bottom



							ABLE 2.4-4				
				ATWS Wit	hin 50 feet	of Wetlands	for the NEX	(US Project P	Pipeline Facilities		
State, Facility,	ATWS ID	Milepost	Milepost	Dimen	minal sions b/ eet)	Area Affected	Area Affected	Existing Land	Feature ID	Distance from Resource	Justification f/
County	7	Begin a/	End a/	Width	Length	(square feet) c/	(acres) c/	Use d/	i data di B	Area (feet)	Guotanion //
Ohio											
<u>Mainline</u>											
Columbiana	ATWS- 0630 ATWS-	1.8	1.8	49	266	4000	0.1	AG	A14-4	0	Road Crossing
Columbiana	0629 ATWS-	1.8	1.8	49	264	5616	0.1	AG	A14-4	13	Road Crossing
Columbiana	0632 ATWS-	1.8	1.9	49	238	4736	0.1	OL	A14-5	0	Road Crossing
Columbiana	0631 ATWS-	1.9	1.9	49	115	12948	0.3	OL	A14-5	7	Road Crossing
Columbiana	1096 ATWS-	2.1	2.1	25	226	23349	0.5	AG	A14-5	16	Road Crossing
Columbiana	1105 ATWS-	2.1	3.2	25	5524	15014	0.3	AG	A14-5	0	Wetland Crossing
Columbiana	0015 ATWS-	4.7	4.7	70	364	13082	0.3	OL	A14-9	23	Wetland Crossing & Staging Area
Columbiana	0633 ATWS-	4.9	5.0	47	140	21000	0.5	OL	A14-10	39	Road Crossing
Columbiana	0603 ATWS-	5.5	5.5	46	102	20146	0.5	OL	A14-126	37	Wetland Crossing
Columbiana	0650 ATWS-	7.3	7.4	20	302	12501	0.3	OL	A14-192	24	Wetland Crossing
Columbiana	0026	7.8	7.9	74	236	5632	0.1	OL	AWB-CO-9	12	Wetland Crossing
Columbiana	ATWS- 1100 ATWS-	7.9	8.0	25	678	16669	0.4	AG	AWB-CO-9	12	Wetland Crossing
Columbiana	0604	10.1	10.1	70	298	3346	0.1	OL	A14-14	11	Wetland Crossing
Columbiana	ATWS- 0639	10.1	10.2	65	434	15527	0.4	OL	A14-14	13	Wetland Crossing
Columbiana	ATWS- 0011	10.8	10.8	50	97	12985	0.3	FW	AWB-CO-11	23	Railroad & Wetland Crossing
Columbiana	ATWS- 0013 ATWS-	10.8	10.8	75	219	11608	0.3	FW	AWB-CO-11	0	Railroad & Wetland Crossing
Columbiana	0665	10.9	11.0	69	198	17203	0.4	AG	A14-16	35	Road Crossing



TABLE 2.4-4

ATWS Within 50 feet of Wetlands for the NEXUS Project Pipeline Facilities

State, Facility, County	ATWS ID	Milepost	Milepost	Dimen	ninal sions b/ eet)	Area Affected	Area Affected	Existing Land	Feature ID	Distance from Resource	Justification f/
County	7111012	Begin a/	End a/	Width	Length	(square feet) c/	(acres) c/	Use d/	r cutaro 12	Area (feet) e/	oudinound "
Columbiana	ATWS- 1121	11.2	11.3	25	434	43400	1.0	AG	AWB-CO-12	39	Wetland Crossing
Stark	ATWS- 0667 ATWS-	12.9	12.9	57	137	6153	0.1	AG	A14-18	1	Road Crossing
Stark	1132 ATWS-	14.3	14.4	25	724	28925	0.7	AG	A14-20	10	Wetland Crossing
Stark	1136 ATWS-	16.0	16.2	25	719	14609	0.3	AG	AWB-ST-5	1	Wetland Crossing
Stark	2072 ATWS-	16.2	16.3	25	175	15620	0.4	AG	AWB-ST-5	2	Constructability
Stark	0040 ATWS-	16.3	16.3	62	75	5643	0.1	OL	AWB-ST-5	21	Road & Wetland Crossing
Stark	0042 ATWS-	16.5	16.6	70	542	138108	3.2	OL	AWB-ST-7	4	Wetland Crossing
Stark	1137 ATWS-	16.8	16.8	70	140	33888	0.8	AG	A14-107	6	Wetland Crossing
Stark Stark	1138 ATWS- 0078	17.1 19.4	17.1 19.5	62 87	216 228	13023 6047	0.3 0.1	AG FW, RE	A14-106 AWB-ST-11	45 0	Wetland Crossing Road Crossing
Stark	ATWS- 0079	19.4	19.5	52	325	17460	0.1	FW, RE	AWB-ST-11	39	Road Crossing
Stark	ATWS- 0648	19.5	19.6	20	310	2771	0.1	FW	A14-172	0	Road Crossing
Stark	ATWS- 0053	20.7	20.7	49	174	25500	0.6	FW	AWB-ST-12	5	Road & Wetland Crossing
Stark	ATWS- 0054	20.7	20.7	74	76	6571	0.2	OL	AWB-ST-12	47	Road & Wetland Crossing
Stark	ATWS- 1165	24.7	24.7	70	150	23323	0.5	AG	A14-167	9	Wetland Crossing
Stark	ATWS- 1166 ATWS-	24.7	24.8	45	308	28249	0.6	AG	A14-167	6	Wetland Crossing
Stark	0070 ATWS-	25.8	26.0	70	550	4646	0.1	AG, FW	A14-100	13	Wetland Crossing
Stark	1169 ATWS-	26.0	26.1	25	252	10526	0.2	AG	A14-100	13	Wetland Crossing
Stark	1168	26.1	26.2	25	411	12673	0.3	AG	A14-101	15	Wetland Crossing



TABLE 2.4-4

ATWS Within 50 feet of Wetlands for the NEXUS Project Pipeline Facilities

State, Facility, County	ATWS ID	Milepost	Milepost	Dimen	minal sions b/ eet)	Area Affected	Area Affected	Existing Land	Feature ID	Distance from Resource	Justification f/
County	AIWOID	Begin a/	End a/	Width	Length	(square feet) c/	(acres) c/	Use d/	reature ib	Area (feet) e/	ousilication i
Stark	ATWS- 0549	26.4	26.4	45	250	33267	0.8	FW	A14-98	49	Wetland Crossing
Stark	ATWS- 1175 ATWS-	26.7	26.9	25	1040	5553	0.1	AG	A14-36 AWB-ST-13/A14-	37	Road Crossing
Stark	0735 ATWS-	27.3	27.3	50	247	11192	0.3	FW	34	48	Railroad & Wetland Crossing
Stark	1176 ATWS-	28.0	28.1	25	941	4552	0.1	AG	AWB-ST-29	24	Wetland Crossing
Stark	0086 ATWS-	28.5	28.6	91	111	16946	0.4	FW	AWB-ST-14	0	Road Crossing
Stark	1179 ATWS-	28.6	28.6	50	169	4292	0.1	AG	AWB-ST-14	28	Road Crossing
Stark	0739 ATWS-	28.9	29.0	70	476	3122	0.1	AG	AWB-ST-18	39	Wetland Crossing
Stark	1183 ATWS-	29.3	29.4	75	376	19078	0.4	AG	AWB-ST-26	18	Wetland Crossing
Stark	0090 ATWS-	31.1	31.2	20	346	20770	0.5	AG	A14-164	47	Road Crossing
Stark	0605 ATWS- 1384	31.2 31.3	31.2 31.3	74	76 288	12885 8225	0.3	AG AG	A14-164 A14-164	47 12	Road Crossing Wetland & Road Crossing
Stark Stark	ATWS- 0740	31.3	31.4	70 70	208	68242	1.6	AG	A14-164	12	Wetland Crossing
Stark	ATWS- 1385	31.4	31.6	25	1331	6792	0.2	AG	A14-164	31	Wetland Crossing
Summit	ATWS- 0741	32.6	32.7	95	726	15219	0.3	AG	AWB-ST-23	0	Railroad & Wetland Crossing
Summit	ATWS- 0091	32.7	32.8	99	495	28317	0.7	OL	AWB-ST- 23/AWB-SU-1	0	Road & Wetland Crossing
Summit	ATWS- 0092	32.8	32.9	97	195	4853	0.1	FW, OL	AWB-SU-1	0	Road & Wetland Crossing
Summit	ATWS- 1397	33.3	33.4	71	168	27711	0.6	FW	AWB-SU-2	35	Road Crossing
Summit	ATWS- 1997	34.3	34.4	25	388	122443	2.8	OL, RE	AWB-SU-5	11	Constructability
Summit	ATWS- 1996	34.4	34.5	25	457	5216	0.1	OL, RE	AWB-SU-5	22	Constructability



TABLE 2.4-4

ATWS Within 50 feet of Wetlands for the NEXUS Project Pipeline Facilities

State, Facility, County	ATWS ID	Milepost	Milepost	Dimen	ninal sions b/ eet)	Area Affected	Area Affected	Existing Land	Feature ID	Distance from Resource	Justification f/
County	AINOID	Begin a/	End a/	Width	Length	(square feet) c/	(acres) c/	Use d/	r catalo is	Area (feet) e/	oustilloution in
Summit	ATWS- 1995	34.5	34.5	50	247	52507	1.2	OL, RE	AWB-SU-6	11	Constructability
Summit	ATWS- 1383 ATWS-	35.4	35.5	100	201	24144	0.6	OL RE, FW,	AWB-SU-43	48	Wetland Crossing
Summit	0099 ATWS-	37.5	37.5	45	74	16407	0.4	OL OL	A14-112	0	Road & Wetland Crossing
Summit	0743 ATWS-	37.5	37.5	70	184	5146	0.1	FW	A14-112	14	Road Crossing
Summit	0100 ATWS-	37.6	37.7	70	257	13598	0.3	FW, RE	A14-112	37	Wetland Crossing
Summit	2089 ATWS-	38.0	38.0	50	233	8109	0.2	FW, RE	AWB-SU-13	12	Wetland & Road Crossing
Summit	0101 ATWS-	38.0	38.0	49	114	10699	0.2	FW, RE	AWB-SU-13	4	Road & Wetland Crossing
Summit	1991 ATWS-	38.3	38.3	50	80	4947	0.1	AG	AWB-SU-13	17	Forested Crossing
Summit	2091 ATWS-	38.4	38.5	25	518	23718	0.5	AG	A14-121	18	Constructability
Summit	0744 ATWS-	39.9	40.0	20	237	10140	0.2	AG	A14-122	49	Wetland Crossing
Summit	1407 ATWS-	41.7	41.8	70	300	3972	0.1	FW	AWB-SU-22	45	Wetland Crossing
Summit	1408 ATWS-	41.9	41.9	70	222	12614	0.3	AG	AWB-SU-21	43	Wetland Crossing
Summit	0116 ATWS-	43.1	43.2	75	206	7767	0.2	FW, RE	AWB-SU-24	37	Wetland Crossing
Summit	1986 ATWS-	43.3	43.3	25	111	26512	0.6	OL	B14-1	0	Constructability
Summit	1985 ATWS-	43.3	43.4	45	278	27935	0.6	OL	B14-1	0	Wetland & Road Crossing
Summit	0117 ATWS-	43.4	43.4	75	159	18104	0.4	OL, RE	B14-1 AWB-SU-	38	Road & Wetland Crossing
Summit	1409 ATWS-	43.5	43.6	70	246	2625	0.1	FW	26/AWB-SU-27	15	Wetland Crossing
Summit	0579 ATWS-	43.6	43.7	20	308	68953	1.6	FW	AWB-SU-27	35	Wetland Crossing
Summit	0119	44.1	44.1	75	168	17963	0.4	FW, RE	AWB-SU-30	0	Road & Wetland Crossing



TABLE 2.4-4

ATWS Within 50 feet of Wetlands for the NEXUS Project Pipeline Facilities

State, Facility, County	ATWS ID	Milepost	Milepost	Dimen	minal sions b/ eet)	Area Affected	Area Affected	Existing Land	Feature ID	Distance from Resource	Justification f/
County	AIWOID	Begin a/	End a/	Width	Length	(square feet) c/	(acres) c/	Use d/	reature 15	Area (feet)	oustineation if
Summit	ATWS- 0121	44.8	44.8	76	151	4373	0.1	FW, AG	AWB-SU-34	10	Road & Wetland Crossing
Summit	ATWS- 2065 ATWS-	46.0	46.0	75	125	9956	0.2	AG	AWB-SU-36	10	Stream Crossing
Summit	0581 ATWS-	46.5	46.5	20	174	49141	1.1	AG	AWB-SU-39	11	Wetland Crossing
Summit	0125 ATWS-	46.7	46.7	75	181	4683	0.1	OL, RE	AWB-SU-40	43	Road & Wetland Crossing
Summit	1414 ATWS-	46.8	46.9	25	289	14510	0.3	AG	AWB-SU-41	44	Wetland Crossing
Summit	1372 ATWS-	47.0	47.0	25	355	41865	1.0	AG	AWB-SU-42	16	Wetland Crossing
Summit	0127 ATWS-	47.5	47.6	50	225	37948	0.9	FW, RE	A14-41	43	Road Crossing
Summit	1374 ATWS- 1979	47.8 48.2	47.8 48.7	25	125 2730	35614 38115	0.8	OL AG	A14-42 B14-2	31 28	Wetland Crossing Constructability
Wayne Wayne	ATWS- 1375	48.9	49.0	25 25	609	3291	0.9	OL OL	AWB-WE-4	26 14	Wetland Crossing
Wayne	ATWS- 0582	49.0	49.0	20	257	18970	0.4	OL	AWB-WE-4	12	Wetland Crossing
Wayne	ATWS- 1978	49.0	49.1	25	405	11002	0.3	AG	AWB-WE-4	50	Wetland Crossing
Wayne	ATWS- 1377	49.4	49.7	25	1256	8452	0.2	AG	AWB-WE-8	12	Wetland Crossing
Wayne	ATWS- 1415 ATWS-	49.7	49.7	22	73	5283	0.1	AG	AWB-WE-8	27	Road Crossing
Wayne	0750 ATWS-	49.7	49.7	25	180	31411	0.7	AG	AWB-WE-8	16	Wetland Crossing
Wayne	1417 ATWS-	50.3	50.4	25	44	9508	0.2	FW	A14-124	38	Wetland Crossing
Wayne	0141 ATWS-	53.0	53.0	70	160	9830	0.2	AG	AWB-WE-17	12	Wetland Crossing
Wayne	2022 ATWS-	53.2	53.3	25	490	68451	1.6	AG	AWB-WE-18	34	Constructability
Wayne	1423	53.7	53.8	69	255	14875	0.3	AG	AWB-WE-20	22	Wetland Crossing



TABLE 2.4-4

ATWS Within 50 feet of Wetlands for the NEXUS Project Pipeline Facilities

State, Facility, County	ATWS ID	Milepost	Milepost	Dimen	ninal sions b/ eet)	Area Affected	Area Affected	Existing Land	Feature ID	Distance from Resource	Justification f/
County	7111012	Begin a/	End a/	Width	Length	(square feet) c/	(acres) c/	Use d/	i datalo ib	Area (feet)	oudanisation ii
Wayne	ATWS- 1422	53.8	54.0	25	935	3735	0.1	AG	AWB-WE-20	22	Wetland Crossing
Medina	ATWS- 1426	54.8	55.0	25	668	14701	0.3	AG	AWB-ME-5	14	Wetland Crossing
Medina	ATWS- 0586	55.0	55.1	75	99	12025	0.3	AG	AWB-ME-5	11	Wetland Crossing
Medina	ATWS- 0614 ATWS-	55.3	55.4	70	341	11610	0.3	OL	B14-7	15	Road Crossing
Medina	1350 ATWS-	55.4	56.1	25	3706	13311	0.3	AG	B14-7 AWB-ME-52/B14-	23	Wetland Crossing
Medina	0756 ATWS-	55.5	55.5	45	374	1580	0.0	AG	7	5	Wetland Crossing
Medina	1430 ATWS-	56.8	56.8	70	407	7021	0.2	AG	AWB-ME-11 AWB-ME-	34	Wetland Crossing
Medina	1431 ATWS-	56.9	57.1	25	849	50589	1.2	AG	15/AWB-ME-14	44	Wetland Crossing
Medina	0155 ATWS-	59.6	59.6	75	92	13312	0.3	OL	AWB-ME-91	1	Road Crossing
Medina	1439 ATWS-	59.6	59.7	75	815	1978	0.0	AG	AWB-ME-91 AWB-ME-	0	Constructability
Medina	1440 ATWS-	59.8	59.9	70	338	7053	0.2	AG	92/AWB-ME-91 AWB-ME-93/A14-	17	Forested Crossing
Medina	0590 ATWS-	61.5	61.5	58	188	9695	0.2	AG	114	17	Wetland Crossing
Medina	0760 ATWS-	61.6	61.6	70	75	4481	0.1	AG	A14-114	24	Wetland Crossing
Medina	0160 ATWS-	62.9	62.9	89	266	19917	0.5	RE, OL	AWB-ME-23	46	Road Crossing
Medina	2019 ATWS-	62.9	62.9	69	274	16331	0.4	OL	AWB-ME-23	48	Road Crossing
Medina	1446 ATWS-	63.3	63.6	25	1893	6147	0.1	AG	A14-129	40	Wetland Crossing
Medina	1357 ATWS-	63.7	64.1	25	2056	46174	1.1	AG	AWB-ME-25	47	Wetland Crossing
Medina	0165 ATWS-	64.1	64.1	50	110	16786	0.4	OL, RE	AWB-ME-26 AWB-ME-	20	Road & Wetland Crossing
Medina	0172	64.8	64.9	20	482	6201	0.1	RE, FW	33/AWB-ME-32	30	Wetland Crossing



TABLE 2.4-4

ATWS Within 50 feet of Wetlands for the NEXUS Project Pipeline Facilities

State, Facility, County	ATWS ID	Milepost	Milepost	Dimen	ninal sions b/ eet)	Area Affected	Area Affected	Existing Land	Feature ID	Distance from Resource	Justification f/
County	AIWSID	Begin a/	End a/	Width	Length	(square feet) c/	(acres) c/	Use d/	i eature ib	Area (feet) e/	Justification 1/
Medina	ATWS- 2018 ATWS-	64.9	65.1	20	688	10068	0.2	FW	AWB-ME-33	27	Constructability
Medina	1450 ATWS-	65.1	65.2	74	521	5544	0.1	FW	AWB-ME-33 AWB-ME-	46	Wetland Crossing
Medina	1358 ATWS-	65.5	65.6	70	400	192606	4.4	AG	35/AWB-ME-36	18	Wetland Crossing
Medina	0175 ATWS-	66.0	66.0	50	361	8601	0.2	RE, OL	AWB-ME-39	42	Road & Wetland Crossing
Medina	0281 ATWS-	66.1	66.1	125	192	23512	0.5	OL	AWB-ME-39	40	Railroad & Wetland Crossing
Medina	1451 ATWS-	66.3	66.4	75	256	7596	0.2	AG	AWB-ME-39	17	Wetland Crossing
Medina	1452 ATWS-	66.4	66.5	75	311	7277	0.2	AG	AWB-ME-39	15	Wetland Crossing
Medina	1454 ATWS-	66.6	66.6	75	222	38275	0.9	AG	AWB-ME-40	17	Wetland Crossing
Medina	1359 ATWS-	66.7	66.8	25	601	17169	0.4	AG	AWB-ME-40	49	Wetland Crossing
Medina	1455 ATWS-	67.0	67.1	70	620	10073	0.2	OL	AWB-ME-41	32	Wetland Crossing
Medina Medina	1457 ATWS- 1456	67.1 67.3	67.3 67.4	25 70	1160 209	3065 19919	0.1 0.5	AG AG	AWB-ME-43 AWB-ME- 43/AWB-ME-44	12 20	Wetland Crossing Wetland Crossing
Medina	ATWS- 1458	67.5	67.7	25	1356	6112	0.3	AG	AWB-ME- 44/AWB-ME-45	42	Wetland Crossing
Medina	ATWS- 1973	67.8	67.8	74	177	8061	0.2	AG	AWB-ME-45	0	Wetland Crossing
Medina	ATWS- 2016	67.8	67.8	80	293	34834	0.8	AG	AWB-ME-45	36	Road Crossing
Medina	ATWS- 1360	67.9	68.1	25	1130	36400	0.8	AG	AWB-ME-48	29	Wetland Crossing
Medina	ATWS- 0181	69.4	69.5	50	255	10500	0.2	FW	A14-48	40	Road Crossing
Medina	ATWS- 0180	69.5	69.6	39	270	5654	0.1	AG	AWB-ME-51	25	Road & Wetland Crossing
Medina	ATWS- 0183	69.8	69.8	50	111	13840	0.3	OL	AWB-ME-52	43	Railroad & Wetland Crossing



TABLE 2.4-4

ATWS Within 50 feet of Wetlands for the NEXUS Project Pipeline Facilities

				Nominal							
State, Facility,	ATWS ID	Milepost	Milepost End a/	Dimen	ninai sions b/ eet)	Area Affected	Area Affected	Existing Land	Feature ID	Distance from Resource	Justification f/
County		Begin a/	End a/	Width	Length	(square feet) c/	(acres) c/	Use d/		Area (feet) e/	
Medina	ATWS- 0763	69.8	69.8	50	92	1093	0.0	FW	AWB-ME-52	25	Railroad & Wetland Crossing
Wicama	ATWS-	05.0	03.0	30	32	1000	0.0	1 **	AWD WE 32	25	ramoad a vvenand crossing
Medina	1463 ATWS-	70.8	70.9	25	172	52525	1.2	AG	AWB-ME-58	13	Wetland Crossing
Medina	1464 ATWS-	70.9	71.0	70	272	7396	0.2	FW	AWB-ME-58	39	Wetland Crossing
Medina	0194 ATWS-	74.7	74.7	57	176	38384	0.9	AG	AWB-ME-90	14	Road Crossing
Medina	1478 ATWS-	74.8	74.8	25	259	11475	0.3	AG	AWB-ME-90	17	Road Crossing
Medina	1894 ATWS-	74.8	74.8	70	146	48391	1.1	AG	AWB-ME-90	21	Constructability
Medina	1480 ATWS-	74.8	75.0	25	914	47127	1.1	AG	AWB-ME-95	15	Road Crossing
Medina	1481 ATWS-	75.0	75.1	70	184	12316	0.3	AG	AWB-ME-95	18	Road Crossing
Medina	2013	76.1	76.2	25	829	19932	0.5	AG	AWB-ME-99	11	Forested Crossing
Medina	ATWS- 1487	76.2	76.3	25	458	106835	2.5	AG	AWB-ME-99	10	Forested Crossing
Medina	ATWS- 2164 ATWS-	77.1	77.1	25	111	5491	0.1	AG	AWB-LO-1	20	Wetland Crossing
Lorain	0199 ATWS-	78.2	78.3	70	461	6257	0.1	FW	A14-58	38	Wetland Crossing
Lorain	1336	78.3	78.7	25	1802	52909	1.2	AG	A14-59	10	Wetland Crossing
Lorain	ATWS- 1337	78.7	79.1	25	2135	12290	0.3	AG	AWB-LO-38	13	Wetland & Road Crossing
Lorain	ATWS- 0200	79.2	79.2	66	214	10265	0.2	AG	AWB-LO-38	19	Road & Wetland Crossing
Lorain	ATWS- 0593	79.3	79.4	43	121	11417	0.3	FW	A14-63	48	Road Crossing
Lorain	ATWS- 0595	79.5	79.6	70	296	12350	0.3	AG	A14-63	10	Wetland Crossing
Lorain	ATWS- 0288	79.7	79.7	70	196	10086	0.2	AG	A14-63	10	Wetland Crossing
Lorain	ATWS- 1338	79.9	80.0	25	588	13726	0.3	AG	AWB-LO-8	25	Forested Crossing



TABLE 2.4-4

ATWS Within 50 feet of Wetlands for the NEXUS Project Pipeline Facilities

					ninal		_			Distance	
State, Facility,	ATWS ID	Milepost	Milepost		sions b/ eet)	Area Affected	Area Affected	Existing Land	Feature ID	from Resource	Justification f/
County	7	Begin a/	End a/	Width	Length	(square feet) c/	(acres) c/	Use d/		Area (feet) e/	,
	ATWS-										
Lorain	0770 ATWS-	79.9	80.0	20	305	11180	0.3	FW, AG	AWB-LO-8	17	Wetland Crossing
Lorain	0771 ATWS-	80.2	80.3	19	173	12258	0.3	OL	A14-67	23	Wetland Crossing
Lorain	1496 ATWS-	82.5	82.5	20	217	26950	0.6	AG	AWB-LO-10	25	Wetland & Road Crossing
Lorain	1498 ATWS-	82.6	82.6	110	299	58001	1.3	AG	AWB-LO-10	28	Wetland & Road Crossing
Lorain	0772 ATWS-	83.5	83.5	114	440	17620	0.4	AG	A14-52	0	Wetland Crossing
Lorain	2025 ATWS-	83.5	83.5	25	79	11333	0.3	AG	A14-52	0	Road Crossing
Lorain	0290 ATWS-	85.4	85.5	70	758	8443	0.2	AG	A14-73	35	Wetland Crossing
Lorain	0774 ATWS-	87.5	87.6	70	176	23386	0.5	AG	AWB-LO-15	25	Wetland Crossing
Lorain	1508 ATWS-	87.6	87.7	25	549	38886	0.9	AG	AWB-LO-15	11	Wetland Crossing
Lorain	1297 ATWS-	87.7	87.8	25	532	6094	0.1	AG	AWB-LO-15	41	Wetland Crossing
Lorain	1510 ATWS-	88.0	88.3	25	1855	32888	0.8	AG	A14-53	46	Forested Crossing
Lorain	0779 ATWS-	89.0	89.2	80	2396	16704	0.4	AG	AWB-LO-22	0	Road Crossing
Lorain	1514 ATWS-	90.1	90.2	25	687	42019	1.0	AG	A14-77	22	Road Crossing
Lorain	0785 ATWS-	90.7	90.8	70	520	7399	0.2	FW	A14-178	32	Wetland Crossing
Lorain	1304 ATWS-	91.3	91.6	25	1675	3364	0.1	AG	A14-179	15	Wetland Crossing
Lorain	1515 ATWS-	91.7	91.9	25	1425	8166	0.2	AG	A14-179	15	Wetland Crossing
Lorain	2178 ATWS-	92.1	92.1	45	73	72559	1.7	AG	A14-181	15	Wetland Crossing
Lorain	2176 ATWS-	92.1	92.2	25	338	20001	0.5	AG	A14-182	3	Wetland Crossing
Lorain	0609	92.6	92.6	70	345	17974	0.4	AG	A14-141	15	Wetland Crossing



TABLE 2.4-4

ATWS Within 50 feet of Wetlands for the NEXUS Project Pipeline Facilities

State, Facility, County	ATWS ID	Milepost	Milepost	Dimen	ninal sions b/ eet)	Area Affected	Area Affected	Existing Land	Feature ID	Distance from Resource	Justification f/
County	AINOID	Begin a/	End a/	Width	Length	(square feet) c/	(acres) c/	Use d/	r cutare ib	Area (feet) e/	
Lorain	ATWS- 1891 ATWS-	93.2	93.3	48	170	11794	0.3	FW	AWB-LO-29/A14- 138 AWB-LO-29/A14-	0	Wetland & Road Crossing
Lorain	1892 ATWS-	93.3	93.3	48	142	36558	0.8	FW	138	0	Wetland & Road Crossing
Lorain	0221 ATWS-	93.3	93.4	70	396	11250	0.3	AG	A14-138	14	Wetland Crossing
Lorain	1306 ATWS-	93.4	93.4	25	159	32784	0.8	AG	A14-142	5	Wetland Crossing
Lorain	2085 ATWS-	93.4	93.5	45	282	11282	0.3	AG	A14-142/A14-143	23	Wetland Crossing
Lorain	1305 ATWS-	93.5	93.5	37	71	4339	0.1	AG	A14-143	15	Road Crossing
Lorain	2167 ATWS-	96.0	96.1	25	580	36927	0.8	AG	A14-134	7	Wetland Crossing
Lorain	1311 ATWS-	96.1	96.2	25	211	49706	1.1	AG	A14-134/A14-135	15	Wetland Crossing
Lorain	0663 ATWS-	98.1	98.1	30	312	11866	0.3	FW	A14-151	14	Wetland Crossing
Lorain	0791 ATWS-	98.1	98.1	19	197	23952	0.5	FW	A14-149	50	Wetland Crossing
Erie	0238 ATWS-	99.7	99.7	83	180	26008	0.6	FW, AG	A14-200	2	Road Crossing
Erie	0239 ATWS-	99.8	99.8	74	198	12330	0.3	OL	A14-198	39	Road Crossing
Erie	1890 ATWS-	99.8	99.9	45	157	12629	0.3	OL	A14-198 AWB-ER-50/E14-	11	Road Crossing
Erie	0914 ATWS-	100.8	101.1	51	1935	18985	0.4	4.0	33	0	HDD
Erie	0793 ATWS-	101.7	101.7	44	45	92635	2.1	AG	AWB-ER-49	10	Wetland Crossing
Erie	1889 ATWS-	101.7	101.7	26	269	54796	1.3	AG	AWB-ER-49	10	Constructability
Erie	2086 ATWS-	101.7	101.8	45	137	10876	0.2	AG	AWB-ER-49	13	Constructability
Erie	1530 ATWS-	101.8	101.8	25	222	5906	0.1	AG	AWB-ER-49	10	Forested Crossing
Erie	1531	101.8	101.8	70	109	8231	0.2	AG	AWB-ER-49	2	Forested Crossing



TABLE 2.4-4

ATWS Within 50 feet of Wetlands for the NEXUS Project Pipeline Facilities

State, Facility, County	ATWS ID	Milepost	Milepost	Dimen	minal sions b/	Area Affected	Area Affected	Existing Land	Feature ID	Distance from Resource	Justification f/
County	AIWSID	Begin a/	End a/	Width	Length	(square feet) c/	(acres) c/	Use d/	reature ID	Area (feet)	Justinication 1/
Erie	ATWS- 0708 ATWS-	101.8	101.9	62	118	3487	0.1	AG	AWB-ER-49	29	Road Crossing
Erie	0709 ATWS-	101.9	102.0	88	437	13571	0.3	OL	AWB-ER-49	0	Road Crossing
Erie	0794 ATWS-	102.0	102.0	45	224	16766	0.4	AG	AWB-ER-48	12	Road Crossing
Erie	0710 ATWS-	102.0	102.0	71	279	7213	0.2	AG	AWB-ER-48	17	Road Crossing
Erie	1533 ATWS-	102.0	102.1	25	123	3629	0.1	AG	AWB-ER-48	12	Road Crossing
Erie	0713 ATWS-	104.0	104.0	20	306	8873	0.2	FW	AWB-ER-44	8	Wetland Crossing
Erie	1321 ATWS-	108.4	108.8	25	2101	1976	0.0	AG	A14-154	44	Wetland Crossing
Erie	0670 ATWS-	108.8	108.8	70	106	12584	0.3	AG	A14-154	24	Wetland Crossing
Erie	1546 ATWS-	108.8	108.9	25	459	47249	1.1	AG	A14-154	21	Wetland Crossing
Sandusky	0644 ATWS-	130.1	130.3	66	710	15326	0.4	OL	D14-3	47	Wetland Crossing
Sandusky	1292 ATWS-	130.3	130.4	25	493	14690	0.3	AG	D14-3	10	Wetland Crossing
Sandusky	0843 ATWS-	130.7	131.0	70	1526	28513	0.7	AG	D14-3	11	Wetland Crossing
Sandusky	1962 ATWS-	132.5	132.5	70	385	11068	0.3	AG	AWB-SA-1	9	Wetland Crossing
Sandusky	1588 ATWS-	132.6	133.0	25	2320	37180	0.9	AG	AWB-SA-1	14	Wetland Crossing
Sandusky	0854 ATWS-	133.8	133.9	70	556	21215	0.5	AG	AWB-SA-2	14	Wetland Crossing
Sandusky	0856 ATWS-	134.2	134.3	70	470	6922	0.2	AG	D14-9	30	Wetland & Road Crossing
Sandusky	1243 ATWS-	134.3	134.7	25	1681	20734	0.5	AG	D14-10	16	Wetland Crossing
Sandusky	0314 ATWS-	134.6	134.7	45	181	33339	0.8	AG	D14-10	11	Wetland Crossing
Sandusky	0857	134.7	134.7	45	131	61159	1.4	AG	D14-10	11	Wetland Crossing



TABLE 2.4-4

ATWS Within 50 feet of Wetlands for the NEXUS Project Pipeline Facilities

				Nor	ninal						
State, Facility,	ATWS ID	Milepost	Milepost	Dimen	sions b/ eet)	Area Affected	Area Affected	Existing Land	Feature ID	Distance from Resource	Justification f/
County		Begin a/	End a/	Width	Length	(square feet) c/	(acres) c/	Use d/		Area (feet) e/	
Sandusky	ATWS- 0858 ATWS-	134.7	134.7	45	183	21239	0.5	AG	D14-10	12	Wetland Crossing
Sandusky	1598 ATWS-	138.9	138.9	25	145	33971	0.8	OL	AWB-SA-72	13	Wetland Crossing
Sandusky	1247 ATWS-	138.9	139.2	25	1890	11453	0.3	AG	AWB-SA-72	26	Wetland Crossing
Sandusky	0876 ATWS-	141.6	141.7	97	385	10963	0.3	FW	E14-20	0	Wetland Crossing
Sandusky	1604 ATWS-	142.1	142.4	25	1359	8901	0.2	AG	AWB-SA-8	42	Forested Crossing
Sandusky	0506 ATWS-	146.0	146.1	70	127	14549	0.3	AG	D14-37	16	Wetland Crossing
Sandusky	1250 ATWS-	146.1	146.2	25	572	2763	0.1	AG	D14-37	10	Wetland Crossing
Sandusky	1253 ATWS-	147.2	147.6	25	2192	32276	0.7	AG	E14-73 AWB-SA-9/E14-	43	Wetland Crossing
Sandusky	1661 ATWS-	148.3	148.4	70	180	14294	0.3	AG	43 AWB-SA-	32	Wetland Crossing
Sandusky	1255 ATWS-	151.4	151.5	25	472	45043	1.0	AG	80/AWB-SA-81	16	Forested Crossing
Sandusky	1950 ATWS-	151.5	151.8	25	1462	9563	0.2	AG	AWB-SA-81	13	Stream Crossing
Sandusky	0895 ATWS-	152.1	152.2	75	645	5250	0.1	AG	AWB-SA-82	0	Road Crossing
Sandusky	0897 ATWS-	152.3	152.3	75	99	23587	0.5	FW	D14-41	14	Wetland Crossing
Sandusky	1948 ATWS-	153.1	153.1	50	155	29981	0.7	FW	E14-123	0	Wetland & Road Crossing
Sandusky	1947 ATWS-	153.1	153.1	50	155	44369	1.0	AG	D14-42	0	Wetland & Road Crossing
Sandusky	0347 ATWS-	153.1	153.3	70	634	28234	0.6	AG	D14-42	11	Wetland Crossing
Sandusky	0348 ATWS-	153.4	153.5	70	428	6916	0.2	OL	D14-25	4	Wetland Crossing
Sandusky	0917 ATWS-	157.8	157.8	45	216	47334	1.1	FW	AWB-SA-16 AWB-SA-16/E14-	8	Wetland Crossing
Sandusky	1264	157.9	158.0	25	447	53283	1.2	FW	33	0	Wetland & Road Crossing



TABLE 2.4-4

ATWS Within 50 feet of Wetlands for the NEXUS Project Pipeline Facilities

State, Facility, County	ATWS ID	Milepost	Milepost	Dimen	ninal sions b/ eet)	Area Affected	Area Affected	Existing Land	Feature ID	Distance from Resource	Justification f/
County	AIWOID	Begin a/	End a/	Width	Length	(square feet) c/	(acres) c/	Use d/	i catale ib	Area (feet)	oustilleditori i/
Sandusky	ATWS- 0354 ATWS-	157.9	158.0	74	109	5635	0.1	OL	AWB-SA-16 AWB-SA-17/E14-	36	Road Crossing
Sandusky	1267 ATWS-	158.5	158.6	25	443	14124	0.3	AG	FW1	14	Wetland Crossing
Sandusky	0920 ATWS-	158.6	158.6	74	513	51397	1.2	OL, RE	D14-38	18	Wetland & Road Crossing
Wood	0921 ATWS-	158.7	158.7	70	399	5480	0.1	OL	D14-38	39	Road Crossing
Wood	0356 ATWS-	159.7	159.8	68	389	20157	0.5	FW, RE	D14-31	45	Wetland Crossing
Wood	1270 ATWS-	160.5	160.5	25	198	5204	0.1	AG	E14-84	1	Wetland Crossing
Wood	0934 ATWS-	161.2	161.3	70	750	9640	0.2	FW	E14-154	39	Wetland Crossing
Wood	1275 ATWS-	161.3	161.4	25	210	20746	0.5	FW	E14-152	23	Wetland Crossing
Wood	0935 ATWS-	161.6	161.6	229	535	13767	0.3	AG	E14-152 AWB-WO-15/E14-	0	Road Crossing
Wood	0936 ATWS-	161.6	161.6	57	348	38395	0.9	AG	152	0	Road Crossing
Wood	1280 ATWS-	165.0	165.3	25	1393	13692	0.3	AG	E14-52	28	Wetland Crossing
Wood	1922 ATWS-	165.7	165.8	25	403	7721	0.2	AG	E14-41	10	Wetland Crossing
Wood	1920 ATWS-	165.8	165.9	25	653	7710	0.2	AG	E14-41	3	Wetland Crossing
Wood	1916 ATWS-	169.4	169.9	25	2738	7448	0.2	FW, OL	E14-115	32	Wetland & Road Crossing
Lucas	0675 ATWS-	178.0	178.0	75	152	11395	0.3	AG	AWB-LU-14	33	Road Crossing
Lucas	0676 ATWS-	178.0	178.0	50	199	9375	0.2	AG	AWB-LU-14	30	Road Crossing
Lucas	1189 ATWS-	182.6	182.7	25	625	10066	0.2	AG	AWB-LU-19	16	Road Crossing
Henry	1071 ATWS-	184.0	184.1	45	251	24086	0.6	AG	AWB-HE-1	19	Road Crossing
Fulton	0981	184.9	184.9	60	181	28014	0.6	OL	AWB-HE-7	30	Road Crossing



TABLE 2.4-4

ATWS Within 50 feet of Wetlands for the NEXUS Project Pipeline Facilities

State, Facility, County	ATWS ID	Milepost Begin a/	Milepost End a/	Nominal Dimensions b/ (feet)		Area Affected	Area Affected	Existing Land	Feature ID	Distance from Resource	Justification f/
				Width	Length	(square feet) c/	(acres) c/	Use d/		Area (feet)	
Fulton	ATWS- 1203 ATWS-	187.9	188.0	25	324	6477	0.1	AG	AWB-FU-70	17	Forested Crossing
Fulton	1208 ATWS-	191.1	191.2	25	949	22845	0.5	AG	AWB-FU-64	11	Forested Crossing
Fulton	1206 ATWS-	191.3	191.3	25	220	10203	0.2	AG	AWB-FU-64	12	Forested Crossing
Fulton	1035 ATWS-	193.7	193.8	92	403	18055	0.4	AG	AWB-FU-69	42	Road Crossing
Fulton	1083 ATWS-	193.7	193.8	50	400	19185	0.4	AG	AWB-FU-69	40	Road Crossing
Fulton	1229	201.8	202.3	25	2902	12909	0.3	AG	E14-13	40	Wetland Crossing
Michigan	ATWS-										
Lenawee	1060 ATWS-	210.2	210.2	71	81	5,737	0.1	AG	AWB-LE-50	26	Road Crossing
Lenawee	1059 ATWS-	210.2	210.2	72	81	5,820	0.1	AG	AWB-LE-50	50	Road Crossing
Lenawee	1724 ATWS-	217.6	217.8	25	813	20,334	0.5	AG	E14-170	10	Wetland Crossing
Lenawee	1725 ATWS-	217.9	218.2	25	1743	43,562	1.0	AG	E14-170	10	Wetland Crossing
Lenawee	2043 ATWS-	220.4	220.4	70	280	19,544	0.4	AG	E14-148	30	Forested Crossing
Lenawee	1739 ATWS-	220.5	220.6	70	494	34,634	0.8	AG	E14-148	10	Wetland Crossing
Monroe	1773 ATWS-	224.7	224.8	25	216	5,408	0.1	AG	E14-62	14	Wetland Crossing
Monroe	1774 ATWS-	224.8	225.0	25	900	22,504	0.5	AG	E14-62	13	Wetland Crossing
Monroe	1817 ATWS-	230.5	230.5	72	351	25,328	0.6	AG	AWB-MO-6	20	Road Crossing
Monroe	1818 ATWS-	230.6	230.6	107	194	20,722	0.5	AG	AWB-MO-8	13	Road Crossing
Washtenaw	1827 ATWS-	233.5	233.6	25	201	5,019	0.1	AG	E14-89	43	Wetland & Road Crossing
Washtenaw	1836	234.2	234.3	152	329	49,880	1.1	AG	AWB-WA-2	40	Wetland & Road Crossing



TABLE 2.4-4

ATWS Within 50 feet of Wetlands for the NEXUS Project Pipeline Facilities

State, Facility, County	ATWS ID	Milepost Begin a/	Milepost End a/	Nominal Dimensions b/ (feet)		Area Affected	Area Affected	Existing Land	Feature ID	Distance from Resource	Justification f/
				Width	Length	(square feet) c/	(acres) c/	Use d/	i catale ib	Area (feet) e/	
Washtenaw	ATWS- 0480 ATWS-	239.4	239.5	50	151	7,547	0.2	OL, RE	AWB-WA-4	12	Road & Wetland Crossing
Washtenaw	1652 ATWS-	239.5	239.5	50	152	7,578	0.2	AG	E14-167	14	Wetland & Road Crossing
Washtenaw	1644 ATWS-	240.3	240.4	70	563	39,401	0.9	AG	E14-164	14	Wetland Crossing
Washtenaw	1637 ATWS-	242.3	242.3	49	140	6,880	0.2	AG	AWB-WA-47	49	Road Crossing
Washtenaw	1621 ATWS-	245.2	245.2	80	3052	242,780	5.6	FW	AWB-WA-14	0	HDD pullback
Washtenaw	0490 ATWS-	245.6	246.1	73	1552	8,750	0.2	RE	AWB-WA-42	0	Wetland Crossing
Washtenaw	0497	248.9	249.0	75	560	41,826	1.0	ID, OL	AWB-WA-18	0	Wetland Crossing

a/ Approximate milepost along the pipeline rounded to the nearest tenth.

b/ Dimensions for ATWS areas are approximate. For irregularly shaped ATWS, the approximate dimensions of two of the sides are presented.

c/ The square feet or acreage indicated represents the acreage of ATWS within 50 feet of the wetland.

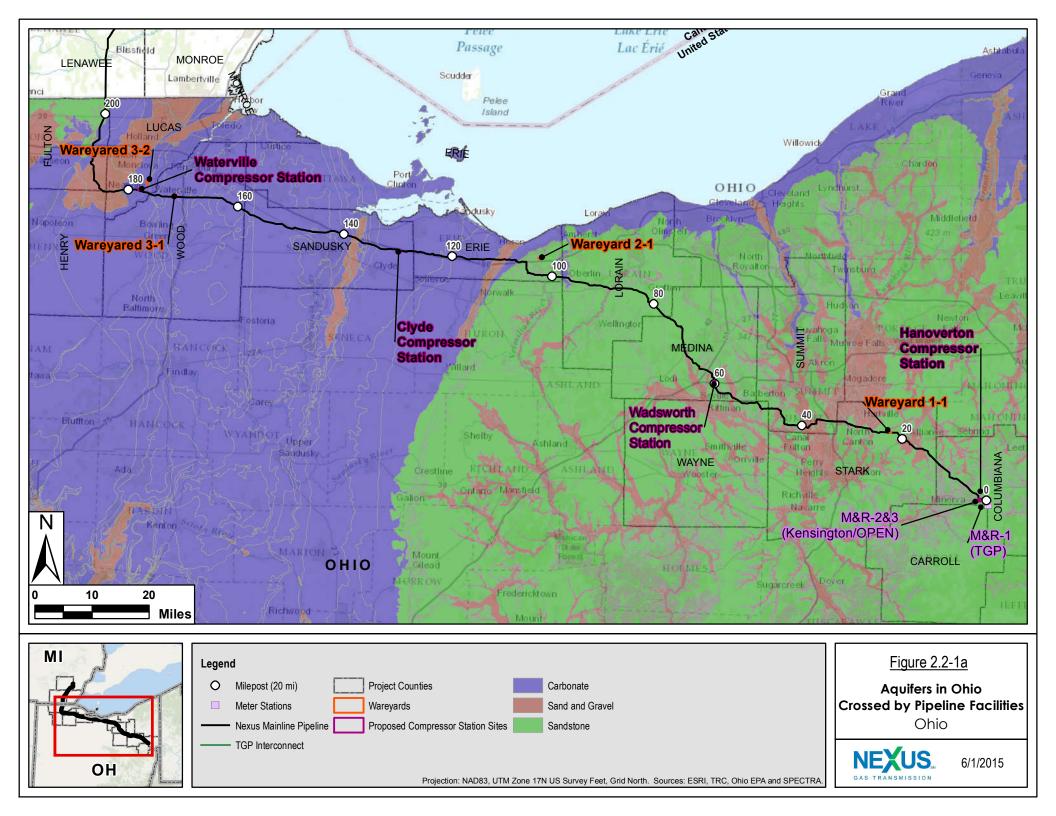
d/ OL = Open Land (non-agricultural), AG = Agricultural, FW = Forested/Woodland, ID = Industrial/Commercial, RE = Residential, OW = Open Water.

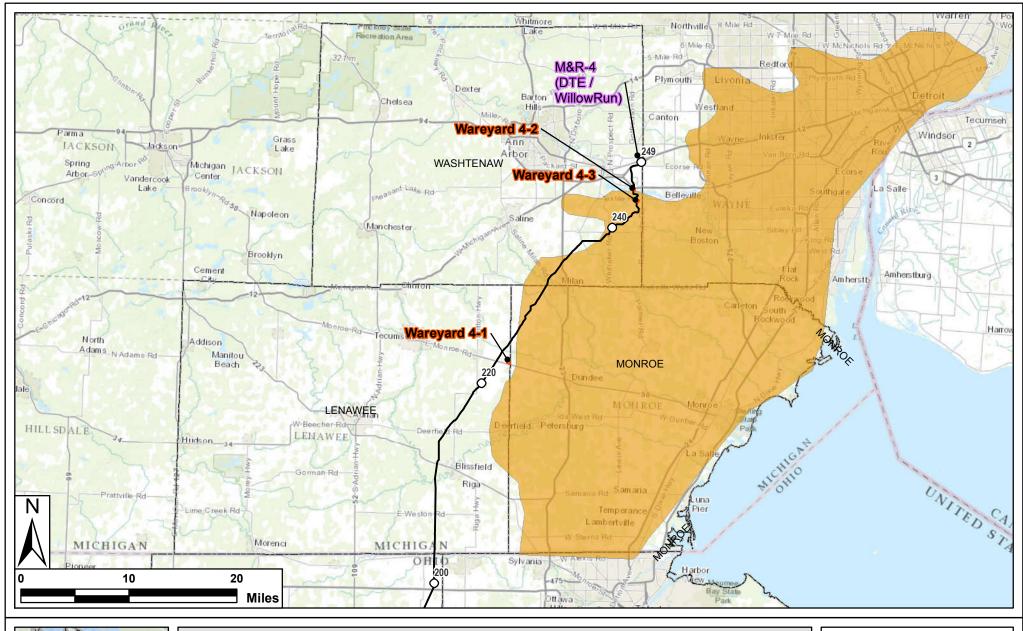
e /Nearest distance from the ATWS to the wetland.

f/ Justification provided is for the portion of the ATWS within 50 feet of the wetland. Justification for the entire ATWS is presented in a separate table in RR8.



FIGURES







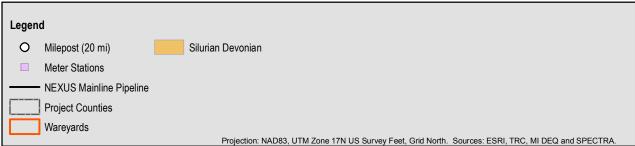


Figure 2.2-1b

Aquifers in Michigan Crossed by Pipeline Facilities Michigan



5/31/2015

