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HARRISON HUB FACILITY PHASE II EXPANSION

PROPOSAL FOR SECTION 404 & 401 AUTHORIZATION

Utica East Ohio Midstream LLC

March 15, 2013

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TABLE OF CONTENTS

1.0 INTRODUCTION 1
2.0 SITE CHARACTERISTICS 3
2.1 Site Location 3
2.2 Topographic Features 3
2.3 Mapped Soils 3
2.4 Hydrologic Conditions 4
3.0 JURISDICTIONAL WATERS INVESTIGATION 5
3.1 Delineation Investigation Results 5
3.2 Wetland Assessment – (ORAM) 11
3.3 Headwater/Qualitative Habitat Evaluation Index (HHEI/QHEI) 12
4.0 OTHER AGENCY COORDINATION 14
4.1 Federally Listed Threatened or Endangered Species 14
4.2 State Listed Rare or Endangered Species 14
4.3 Archaeological and Historical Information 15
5.0 OFF-SITE ALTERNATIVE ANALYSIS DISCUSSION 15
6.0 ON-SITE AVOIDANCE AND MINIMIZATION DISCUSSION 16
7.0 ANTIDEGRADATION RULE REQUIREMENTS DISCUSSION 17
7.1 Overall Project Description (10a) 18
Preferred Alternative
Minimal Degradation Alternative
Non-Degradation Alternative
7.2 Magnitude of the Lowering of Water Quality (10b) 21
Preferred Alternative
Minimal Degradation Alternative
Non-Degradation Alternative
7.3 Technical Feasibility, Cost Effectiveness, and Availability (10c) 22
Preferred Alternative
Minimal Degradation Alternative
Non-Degradation Alternative
7.4 Regional Sewage Collection and Treatment Facilities (10d) 23
7.5 Government and/or Privately Sponsored Conservation Projects (10e) 23
7.6 Best Management Practices/Water Pollution Controls (10f) 23
Preferred Alternative
Minimal Degradation Alternative
Non-Degradation Alternative
7.7 Human Health and Water Resource Quality Impacts (10g) 24
Preferred Alternative
Minimal Degradation Alternative
Non-Degradation Alternative
7.8 Social and Economic Benefits to be Gained (10h) 24
Preferred Alternative
Minimal Degradation Alternative
Non-Degradation Alternative
7.9 Social and Economic Benefits to be Lost (10i) 26
7.10 Environmental Benefits Lost or Gained (10j) 27

Preferred Alternative
Minimal Degradation Alternative
Non-Degradation Alternative
7.11 Proposed Mitigation Techniques (10k) 28
Preferred Alternative
Minimal Degradation Alternative
Non-Degradation Alternative
8.0 MANAGEMENT AND MAINTENANCE 37
9.0 SUMMARY 38
10.0 CITATIONS 39

TABLES

TABLE 1 Mapped Onsite Soils 3
TABLE 2 Summary of Jurisdictional and Isolated Streams on the Eastern Project Site 6
TABLE 3 Summary of Jurisdictional and Isolated Wetlands on the Eastern Project Site 8
TABLE 4 Summary of Jurisdictional Streams on the Western Project Site 10
TABLE 5 Summary of Jurisdictional Wetlands on the Western Project Site 10
TABLE 6 Wetland ORAM Summary 11
TABLE 7 Stream HHEI Summary 13
TABLE 8 Proposed Impacts to Water/Wetland Features for the Preserved Alternative 19
TABLE 9 Proposed Impacts to Water/ Wetland Features for the Minimal Alternative 20
TABLE 10 Wetland Impacts and Required Mitigation Acreage 28
TABLE 11 Proposed Wetland 9 Woody Plantings 33
TABLE 12 Proposed Wetland 17 Woody Plantings 33
TABLE 13 Proposed Wetland 17 Herbaceous Plantings 33
TABLE 14 Proposed Buffer Plantings – Wetlands 9 and 17 34
TABLE 15 Proposed Buffer Plantings – Stream 7 36

APPENDICES

APPENDIX A Phase I Delineation Letter and Permits
APPENDIX B USACE Public Notice dated January 20, 2013
APPENDIX C Ohio Rapid Assessment Method (ORAM) Dataforms
APPENDIX D Headwater Habitat Evaluation Index (HHEI) Dataforms
APPENDIX E USFWS Coordination Letter
APPENDIX F ODNR Natural Heritage Database Search Letter
APPENDIX G Social and Economic Justification (SEJ) Table
APPENDIX H 401 Impact Table
APPENDIX I Harrison Hub Facility: Preliminary VIBI

EXHIBITS

EXHIBIT 1 Area Location Map
EXHIBIT 2 USGS Topographic Map
EXHIBIT 3 Harrison County Soil Survey Map
EXHIBIT 4 FEMA Flood Insurance Rate Map
EXHIBIT 5 National Wetland Inventory (NWI) Map
EXHIBIT 6 Kleinfelder Delineation Map - EPS

EXHIBIT 7 Kleinfelder Phase I Preferred Alternative
EXHIBIT 8 EMH&T Delineation Map – WPS
EXHIBIT 9 Preferred Alternative Exhibit (8 ½ by 11) Sheet 1
EXHIBIT 9a Preferred Alternative Exhibit (Full Size) Sheet 1
EXHIBIT 10 Preferred Alternative Exhibit (8 ½ by 11) Sheet 2
EXHIBIT 10a Preferred Alternative Exhibit (Full Size) Sheet 2
EXHIBIT 11 Minimal Degradation Alternative (8 ½ by 11)
EXHIBIT 11a Minimal Degradation Alternative (Full Size)
EXHIBIT 12 Non-Degradation Alternative (8 ½ by 11)
EXHIBIT 12a Non-Degradation Alternative (Full Size)
EXHIBIT 13 On-Site Preservation/Enhancement
EXHIBIT 14 On-Site Preservation/Enhancement

PHOTOGRAPHS

1.0 INTRODUCTION

Utica East Ohio Midstream LLC (UEOM) is proposing to expand their natural gas liquid (NGL) Harrison Hub fractionation processing facility, NGL storage areas, and a rail distribution facility near the Village of Scio, Harrison County, Ohio. EMH&T is preparing a 404/401 permit application for Phase II of the Harrison Hub Facility for UEOM. This document will be an amendment to a Nationwide Permit #39 that was issued on October 23, 2012 for Phase I of the same project. The USACE ID Number for this project is: 2012-254-TUS-UN Trib to Conotton Creek.

Project History – Phase I

Phase I included construction of a natural gas liquid (NGL) fractionation processing facility, NGL storage areas, and a rail distribution facility. Kleinfelder East, Inc. (Kleinfelder) was engaged to conduct a delineation and nationwide permit for a 265 acre project site (Eastern Project Site). Kleinfelder prepared a delineation report dated May 2012, a Nationwide Permit #39 application dated August 2012, and a Level 1 General Isolated Wetlands Permit application dated August, 2012. The Kleinfelder delineation identified 8.68 acres of jurisdictional wetland, 0.25 acres of isolated wetland, 12,802 linear feet of jurisdictional stream, and 1,095 linear feet of isolated stream. In order to minimize impacts to wetlands and streams, different parts of the facility were separated into several pads of varying sizes and elevations. These pads were proposed in the upland areas scattered in and around the wetlands and streams. Phase I is currently under construction.

Phase I required 515 linear feet (0.068 acres) of impacts to jurisdictional streams to construct road crossings and rail crossings. Impacts were minimized to the maximum possible extent in order to build Phase I of the facility. Culverts were used within Streams 2, 3, and 7 to conduct flow under the proposed roads and railroad lines. Streams 26 and 29 were the upstream most sections of ephemeral streams. These two streams were excavated and then filled with crushed stone on the undisturbed subgrade. The 0.006 acre of impact to jurisdictional Wetland 30 was necessary in order to construct a site access roadway.

Phase I of the project also required impacts to 212 linear feet (0.009 acre) of isolated stream and 0.18 acre isolated wetlands in order to grade the site. Stream 10 was excavated and then filled in order to construct a pad for the NGL facility. Isolated Streams 50 and 100 were partially excavated and filled for construction of the railroad lines. Impacts to 0.13 acre of isolated Wetland 4 were necessary for grading associated with the facility. Impacts to 0.05 acre of isolated Wetland 6 were necessary for grading associated with the railroad lines. All isolated features were excavated and then filled with crushed stone on the undisturbed subgrade.

Phase I avoided 8.74 acres of wetland and 13,170 linear feet of stream. This includes avoidance of 8.67 acres of jurisdictional wetlands and 12,287 linear feet of jurisdictional stream. The remaining features were isolated. Minimizing impacts during construction included utilizing an existing culvert in Stream 3 at the location of one access drive. A second access drive over Stream 3 was accomplished by spanning the Ordinary High Water Mark (OHWM).

UEOM mitigated their Phase I stream impacts by preserving portions of Streams 3 and 7 onsite. This preservation included 2,045 linear feet of stream within a 3.07 acre riparian habitat

preserve. These areas were to be preserved using an environmental covenant with Ohio EPA. Per a July 10, 2012 pre-application meeting with the Huntington District, United States Army Corps of Engineers (USACE) no mitigation was required for proposed impacts to 0.006 acres of jurisdictional wetland. UEOM purchased 0.40 acre of non-forested mitigation credit from Ohio Wetland Foundation's Big Darby Hellbranch Wetland Mitigation Bank for 0.18 acres of isolated wetland impact.

The USACE delineation verification letter date August 23, 2012; the USACE Nationwide Permit #39 dated October 23, 2012; and the Ohio EPA Level 1 Isolated Wetlands Permit dated September 13, 2012 are located in Appendix A.

Current Project – Phase II

The Phase I portion of the Harrison Hub Facility, currently under construction, consists of three processing plants, storage tanks, and a truck and rail facility for outbound shipment of propane, butane and natural gasoline. A separate project, a regional cryogenic gas processing facility located near Kensington, Ohio, is also under construction which will ship NGL's to the Harrison Hub via a 35-mile pipeline. A pipeline to supplement shipment of NGL's to market by rail and truck will also be constructed.

Yields from wells drilled to date in the region have significantly increased projections for NGL production at the Harrison Hub. This, accompanied with favorable market conditions, requires an expansion of the original facility onto a 250 acre site (Western Project Site). This expansion (Phase II) will consist of additional rail infrastructure to handle the large volume of rail car shipments of NGL's to market. Railcar shipment of NGL's to market is critical since sufficient pipeline capacity does not exist. Additional natural gas fractionation plants, storage tanks, and a separate rail loading facility for condensate are also planned.

Additional off campus sites for the Phase II expanded facility were not considered due to several constraints. First, a single rail facility is required for rail operations by both UEOM and the serving railroad, Columbus & Ohio River Railroad. This will allow dedicated trains to deliver and receive railcars from this single facility, reducing switching costs and transit times to ship NGL's to market. Second, an extensive pipeline rack will interconnect the existing and expanded facilities and storage tanks. Minimizing piping lengths reduces the need for additional pumping capacity and larger diameter piping, which would increase the cost and complexity of the expansion. Finally, expanding the existing facility consolidates the footprint and reduces environmental impacts through the use of shared facilities (rail facility, truck terminals, storage tanks, etc.).

EMH&T has prepared this document in accordance with a request by UEOM for Section 401 Water Quality Certification from the Ohio Environmental Protection Agency (Ohio EPA) and Clean Water Act Section 404 authorization from the United States Army Corps of Engineers (USACE) for impacts to Waters of the United States in association with the proposed UEOM Harrison Hub. UEOM is seeking authorization from the Ohio EPA and the USACE to construct the proposed Preferred Alternative for Phase II.

2.0 SITE CHARACTERISTICS

2.1 Site Location

As shown on Exhibit 1, the site is located approximately 1 mile west of the Village of Scio in North Township, Harrison County, Ohio. The site is south of the Columbus and Ohio River railroad, north of Bower Road, and west of Crimm Road.

2.2 Topographic Features

As shown in Exhibit 2, the site is between the elevation of 970 and 1080 feet (National Geodetic Vertical Datum) according to the USGS 7.5' Series Scio and Bowerston, Ohio quadrangle (USGS, 1994). Three streams were mapped on-site. A pond is mapped in the north-central portion of the site.

2.3 Mapped Soils

According to the *Web Soil Survey* for Harrison County, Ohio (USDA-NRCS, 2009) as shown on Exhibit 3, the site contains twelve soil types. These soils are listed below in Table 1 along with their hydric status. A perennial water symbol is positioned within the east-central portion of the site. A single stream is depicted in the northeast corner of the property. Two areas, one within the north-central portion and the other within the north-eastern portion of the site, depict short steep slopes in the referenced vicinity on the map.

TABLE 1
Mapped Soils

Mapped Soil Unit	Inclusions	Hydric Inclusions(Y/N)	Location of Hydric Inclusions
Glenford silt loam, 2 to 6 percent slopes (GsB)	Poorly drained soils	Y (5%)	Depressions
Melvin silt loam, ponded (Me)	Melvin	Y (85%)	Flood Plains
Fitchville silt loam, 0 to 2 percent slopes (FcA)	Poorly drained soils	Y (10%)	Depressions
Fitchville silt loam, 2 to 6 percent slopes (FcB)	Poorly drained soils	Y (10%)	Drainage ways
Tioga silt loam, occasionally flooded (Tg)	Melvin	Y (5%)	Abandoned channels, Oxbows
Hazleton channery sandy loam, 40 to 70 percent slopes (HeF)		N	-

Table 1 is continued on Page 4

Table 1 continued from Page 3

Mapped Soil Unit	Inclusions	Hydric Inclusions(Y/N)	Location of Hydric Inclusions
Coshocton silt loam, 6 to 15 percent slopes (CnC)		N	-
Coshocton silt loam, 15 to 25 percent slopes (CnD)		N	-
Gilpin silt loam, 2 to 6 percent slopes (GnB)		N	-
Gilpin silt loam, 6 to 15 percent slopes (GnC)		N	-
Westmoreland-Dekalb complex, 25 to 40 percent slopes (WnE)		N	-
Oshtemo loam, 2 to 6 percent slopes (OsB)		N	-

A hydric soil is a soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions that favor the growth and regeneration of hydrophytic vegetation (USDA-SCS, 1985). According to the USDA, Hazleton channery sandy loam, 40 to 70 percent slopes (HeF), Coshocton silt loam, 6 to 15 percent slopes (CnC), Coshocton silt loam, 15 to 25 percent slopes (CnD), Gilpin silt loam, 2 to 6 percent slopes (GnB), Gilpin silt loam, 6 to 15 percent slopes (GnC), Westmoreland-Dekalb complex, 25 to 40 percent slopes (WnE), and Oshtemo loam, 2 to 6 percent slopes (OsB) are non hydric soils but may contain hydric inclusions of Pewamo silty clay loam in depressions and ground moraines. Glenford silt loam, 2 to 6 percent slopes (GsB), Melvin silt loam, ponded (Me), Fitchville silt loam, 0 to 2 percent slopes (FcA), and Tioga silt loam, occasionally flooded (Tg) are hydric soils (USDA-NRCS, 2012). Hydric inclusions within this soil unit may be found in depressions and ground moraines.

2.4 Hydrologic Conditions

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) was reviewed for the site (FEMA, 2009). As shown on Exhibit 4, a majority of the site lies within Zone X (unshaded), which represents an area located outside of the 500-year floodplain. A small portion of the site located near the northwest corner lies within Zone A (blue shaded), which represents an area within the 100-year floodplain.

The United States Fish and Wildlife Service's (USFWS) National Wetland Inventory (NWI) *Scio, Ohio* (USFWS, 1976) and *Bowerston, Ohio* (USFWS, 1976) quadrangles were reviewed for the site. As shown in Exhibit 5, one Palustrine, Emergent, Saturated semipermanent/ seasonal (PEMY) feature was mapped for the site. Additionally, a portion of a Palustrine, Scrub-shrub broad-leaved deciduous and emergent, Intermittently flooded, temporary (PSS1/EMW) feature was also mapped within the site boundary.

3.0 JURISDICTIONAL WATERS INVESTIGATION

EMH&T conducted field investigations of the property in September and October, 2012 to determine the location, extent, and quality of potential Waters of the United States, including wetlands and streams. Areas identified as potential Waters of the United States and areas that exhibited all three indicators of potential jurisdictional wetlands were noted. Identification of potential jurisdictional wetlands required characterization of plant community types, identification of hydric soils, and hydrologic indicators for each community type.

For all potential wetland areas, dominant species in the tree, sapling, shrub, woody vine and herb layers were determined, in accordance with the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region, Version 2.0 (USACE, 2012). Recorded vegetative data consisted of herbs with the greatest percentage of aerial cover within 5' of the plot center. Within a 15' radius of the plot center, saplings and shrubs with the greatest height were recorded and within a 30' radius of the plot center, trees with the largest relative basal area and woody vines with the greatest number of stems were recorded. Species within each of these layers were listed on dataforms in order of dominance.

Dominance was determined for each stratum individually. Dominant species included those that comprised 50 percent of the total dominance measure for a stratum, plus any additional species comprising 20 percent or more of the total dominance measure of a stratum. Hydrophytic vegetation was determined to be present when more than 50 percent of the dominants in a sample area were listed as facultative (FAC), facultative wetland (FACW) or obligate wetland (OBL) plants according to USACE's National Wetlands Plant List (2012).

Where possible, soil data were collected by digging a test pit to a maximum depth of 20" to determine the presence of hydric soil. Soil matrix and mottle colors were identified using a Munsell Soil Color Chart (Macbeth, Revised 1994). Evidence of any hydric soil characteristics and evidence of the presence of wetland hydrology were also recorded.

The boundaries of areas in which all three wetland criteria were met were identified and measured in the field. Points at which dominant vegetation species changed from wetland to upland, where soils changed from hydric to non-hydric, or where indicators of wetland hydrology were no longer observed were noted. The characteristics of each community type were recorded on dataforms and sample points were chosen to represent both an identified potential wetland and its surrounding upland community.

3.1 Delineation Investigation Results

Kleinfelder Delineation – Eastern Project Site

Kleinfelder was engaged to conduct a delineation for the Eastern Project Site. Kleinfelder prepared a delineation report dated May 2012. The delineation identified 12,802 linear feet of jurisdictional stream and 1,095 linear feet of isolated stream. The USACE verified the wetlands and streams identified by Kleinfelder's delineation in a letter dated August 23, 2012. Upon reviewing the Kleinfelder's delineation report and the USACE verification letter, it appears that the total linear feet for jurisdictional and isolated stream within the USACE verification letter

is incorrect. However, the linear foot calculation in the USACE verification letter presented for each feature individually are correct. The USACE's delineation verification letter, the USACE's Nationwide Permit letter, and the Ohio EPA Isolated Wetland Permit letter for Phase I are located in Appendix A. Kleinfelder's delineation map is attached as Exhibit 6. *Additionally, Kleinfelder left gaps in their naming of streams and wetlands within their delineation reports and permit applications. EMH&T is unaware of the reason for these naming gaps.*

Kleinfelder prepared a Nationwide Permit #39 Application dated August, 2012 for Phase I of the project. Phase I included construction of a natural gas liquid (NGL) fractionation processing facility, NGL storage areas, and a rail distribution facility. According to Kleinfelder's Nationwide Permit #39 Application, Phase I required 515 linear feet (0.068 acres) of impacts to jurisdictional streams and 212 linear feet (0.009 acre) of isolated stream. Jurisdictional impacts were authorized by a USACE Nationwide Permit Letter dated October 23, 2012. Isolated impacts were authorized by an Ohio EPA Level 1 Isolated Wetlands Permit dated September 13, 2012. After impacts were completed, this project area contains 12,287 linear feet of jurisdictional stream and 883 linear feet of isolated stream.

As shown in Exhibit 6 (Kleinfelder's Delineation Map), Erosional Features 1 and 101 were originally delineated in Kleinfelder's delineation report as isolated streams. As shown in Exhibit 7 (Kleinfelder's Preferred Alternative), they are referred to as "erosional features" in Kleinfelder's Nationwide Permit #39 application. Erosional Feature 1 was located on the Eastern Project Site and was not investigated by EMH&T. It appears that portions of the feature were impacted by Phase I, but it also appears that Kleinfelder coordinated those impacts before construction of Phase I commenced. Erosional feature 101 is on the Western Project Site, and was therefore reviewed by EMH&T. EMH&T determined that Erosional Feature 101 was not a stream due to a lack of a defined bed/ bank and flow regime. It appears that the entirety of erosional feature 101 was impacted by Phase I of the project and that Kleinfelder coordinated those impacts before the project began. Table 2 summarizes stream lengths on Phase I of the project. No linear feet for the erosional features or for impacts associated with the erosional features are shown in Table 2, as these features are not streams.

TABLE 2
Summary of Jurisdictional and Isolated Streams on the Eastern Project Site

Stream ID/ Project Phase	Jurisdictional Classification	Stream Flow Classification	Total Stream Length (linear feet) Prior to Phase I Impacts	Jurisdictional Stream Impacts (linear feet)	Isolated Stream Impacts (linear feet)	Total Stream Length (linear feet) After Phase I Impacts
Erosional Feature 1	Isolated	Intermittent	-	-	-	-
Stream 2	Non-RPW	Ephemeral	856	60	-	796
Stream 3	RPW	Perennial	4,224	235	-	3,989
Stream 4	Non-RPW	Ephemeral	154	0	-	154

Table 1 is continued on Page 7

Table 1 continued from Page 6

Stream 5	Non-RPW	Ephemeral	286	0	-	286
Stream 6	RPW	Intermittent	316	0	-	316
Stream 7	RPW	Intermittent	2,829	55	-	2,774
Stream 8	Isolated	Ephemeral	92	0	-	92
Stream 10	Isolated	Intermittent	441	-	128	313
Stream 11	Isolated	Ephemeral	146	-	0	146
Stream 12	Isolated	Ephemeral	130	-	0	130
Stream 26	Non-RPW	Ephemeral	200	91	-	109
Stream 29	Non-RPW	Ephemeral	167	74	-	93
Stream 30	RPW	Perennial	1,324	0	-	1,324
Stream 31	RPW	Intermittent	127	0	-	127
Stream 32	RPW	Perennial	514	0	-	514
Stream 33	RPW	Intermittent	103	0	-	103
Stream 34	RPW	Intermittent	104	0	-	104
Stream 35	RPW	Intermittent	184	0	-	184
Stream 38	Non-RPW	Ephemeral	45	0	-	45
Stream 39	Isolated	Ephemeral	106	0	-	106
Stream 40	Non-RPW	Intermittent	782	0	-	782
Stream 41	Non-RPW	Ephemeral	147	0	-	147
Stream 42	RPW	Intermittent	223	0	-	223
Stream 43	Isolated	Ephemeral	125	0	-	125
Stream 50	Isolated	Ephemeral	48	-	19	29
Stream 100	Isolated	Ephemeral	224	-	65	159
Erosional Feature 101	Isolated	Ephemeral	-	-	-	-
Total	**-**	**-**	**13,897**	**515**	**212**	**13,170**

Kleinfelder also identified 8.68 acres of jurisdictional wetland and 0.25 acres of isolated wetland on Phase I. The USACE verified the wetlands and streams identified by Kleinfelder's delineation in the letter dated August 23, 2012. Phase I required 0.006 acres of impacts to jurisdictional wetland. Phase I also required impacts to 0.18 acre of isolated wetlands. Jurisdictional impacts were authorized by a USACE Nationwide Permit Letter dated October 23, 2012. Isolated impacts were authorized by an Ohio EPA Level 1 Isolated Wetlands Permit dated September 13, 2012.

As shown in Exhibit 6 (Kleinfelder's Delineation Map) and Exhibit 7 (Kleinfelder's Preferred Alternative), Wetland 6 was delineated by Kleinfelder as a 0.37 acre isolated wetland. Kleinfelder's Level 1 Isolated Wetland Permit Application for Phase I requested impacts to 0.126 acre of this feature. Ohio EPA approved these impacts in the September 13, 2012 permit. EMH&T is representing the 0.126 acre of isolated wetland impact within our tables. However, because it is found on the Western Project Site EMH&T re-investigated the avoided areas of this wetland and found them to be lacking wetland hydrology and vegetation. EMH&T considers this area to be a non-wetland and has decreased the size of that wetland in the table to match the size of the impacts. Table 3 summarizes wetland sizes on Phase I, including Wetland 6.

Kleinfelder delineated a "Wetland 16" spanning the boundary between the Eastern Project Site and the Western Project Site. The Western Project Site was more recently investigated by EMH&T. EMH&T has renamed the feature as Wetland 9 and has included this feature in the next section of this document. Table 3 summarizes wetland sizes on Phase I, except for Wetland 16 which has been removed and included in the EMH&T delineation section.

TABLE 3
Summary of Jurisdictional and Isolated Wetlands on the Eastern Project Site

Wetland ID/ Project Phase	Jurisdictional Classification	Forested/ Shrub-Scrub/ Emergent	Total Wetland Size (acres) Prior to Phase I Impacts	Jurisdictional Wetland Impacts (acres)	Isolated Wetland Impacts (acres)	Total Wetland Size (acres) After Phase I Impacts
Wetland 1	Adjacent Non-RPW	Emergent	0.08	0	-	0.08
Wetland 2	Adjacent Non-RPW	Emergent	0.15	0	-	0.15
Wetland 3	Adjacent RPW	Emergent	0.09	0	-	0.09
Wetland 4	Isolated	Emergent	0.052	-	0.052	0
Wetland 6	Isolated	Emergent	0.126	-	0.126	0
Wetland 17	Adjacent RPW	Emergent	1.83	0	-	1.83
Wetland 30	Abutting RPW	Emergent	5.39	0.006	-	5.384
Wetland 33	Abutting RPW	Emergent	0.04	0	-	0.04
Wetland 34	Abutting RPW	Emergent	0.22	0	-	0.22
Wetland 35	Adjacent Non-RPW	Emergent	0.34	0	-	0.34

Table 3 is continued on Page 8

Table 3 continued from Page 7

Wetland ID/ Project Phase	Jurisdictional Classification	Forested/ Shrub-Scrub/ Emergent	Total Wetland Size (acres) Prior to Phase I Impacts	Jurisdictional Wetland Impacts (acres)	Isolated Wetland Impacts (acres)	Total Wetland Size (acres) After Phase I Impacts
Wetland 36	Adjacent Non-RPW	Emergent	0.08	0	-	0.08
Wetland 37	Isolated	Emergent	0.02	-	0	0.02
Wetland 38	Adjacent Non-RPW	Emergent	0.05	0	-	0.05
Wetland 39	Abutting RPW	Shrub-Scrub	0.23	0	-	0.23
Wetland 40	Abutting RPW	Emergent	0.23	0	-	0.23
Total*	**-**	**-**	**8.928***	**0.006**	**0.178**	**8.744***

*The Phase I totals from the Kleinfelder delineation has been reduced due to the reduction in acreage for Wetland 6 and the removal of mention of Wetland 16 from the table. Wetland 16 has been renamed Wetland 9 and included in the Phase II table.

EMH&T Delineation – Western Project Site

EMH&T's field review of the site identified nine (9) potentially jurisdictional non-isolated wetlands on the Western Project Site. One of these wetlands (Wetland 9; formerly Kleinfelder Wetland 16) was previously delineated by Kleinfelder East, Inc. as part of a separate Waters of the U.S. study. Additionally, one (1) linear wetland ditch was also located on the Western Project Site. The location and extent of potential wetland areas on the Western Project Site are shown on Exhibit 8. All potential wetlands delineated in the field were marked with flagging tape and subsequently mapped using either traditional land survey techniques or a Trimble® GeoXH, Geo Explorer 6000 Series Global Positioning System (GPS) unit. The dominant vegetation within the wetland areas along with the hydric soil and wetland hydrologic indicators found within the potential wetland areas are described within the dataforms completed during the field investigation. Seven (7) potentially jurisdictional headwater habitat streams were observed on the Western Project Site. The centerline of each stream feature was field marked with flagging tape and mapped using either traditional land survey techniques or a Trimble® GeoXH, Geo Explorer 6000 Series GPS unit.

Tables 4 and 5 show the extent of the potentially jurisdictional wetlands and streams identified by EMH&T on the Western Project Site and summarizes the classification of each surface water feature. Wetland 9 spans the boundary between the Eastern Project Site delineated by Kleinfelder and the Western Project Site delineated by EMH&T. This feature was initially delineated by Kleinfelder as "Wetland 16" but has been renamed and included within this section of the document. The USACE is planning to verify the delineation via a Pre-Jurisdictional Determination but for now has issued a Public Notice dated January 20, 2013, which is located in Appendix B. Pictures of the wetlands and streams in Tables 4 and 5 are included in the Photographs section of this document.

TABLE 4
Summary of Jurisdictional Streams on the Western Project Site

Stream ID/ Project Phase	Jurisdictional Classification	Stream Flow Classification	Length of Potential Jurisdictional Streams (linear feet)	Potential Jurisdictional Stream Area (acres)	Length of Potential Isolated Streams (linear feet)
Stream 1	Non-RPW	Intermittent	725	0.04	-
Stream 2	Non-RPW	Intermittent	168	0.016	-
Stream 3	Non-RPW	Intermittent	356	0.013	-
Stream 4	Non-RPW	Intermittent	1,947	0.07	-
Stream 5	Non-RPW	Intermittent	96	0.009	-
Stream 6	Non-RPW	Intermittent	140	0.011	-
Stream 7	RPW	Perennial	2,232	0.34	-
Total	-	-	**5,664**	**0.499**	**0**

TABLE 5
Summary of Jurisdictional Wetlands on the Western Project Site

Wetland ID/ Project Phase	Jurisdictional Classification	Forested/ Shrub-Scrub/ Emergent	Potentially Jurisdictional Wetland (acres)	Potentially Isolated Wetland (acres)
Wetland 1	Adjacent RPW	Emergent	5.91	-
Wetland 2*	Abutting RPW	Emergent/ Scrub-Shrub	5.21	-
Wetland 3	Abutting RPW	Forested/ Emergent	0.08	-
Wetland 4	Abutting Non-RPW	Forested/ Emergent	0.11	-
Wetland 5	Adjacent Non-RPW	Emergent	0.04	-
Wetland 6	Abutting Non-RPW	Emergent	0.08	-
Wetland 7	Abutting Non-RPW	Emergent	0.06	-
Wetland 8	Adjacent Non-RPW	Emergent	0.14	-
Wetland 9**	Adjacent Non-RPW	Forested/ Scrub-Shrub	5.89	-

Table 5 is continued on Page 10

Table 5 continued from Page 9

Wetland ID/ Project Phase	Jurisdictional Classification	Forested/ Shrub-Scrub/ Emergent	Potentially Jurisdictional Wetland (acres)	Potentially Isolated Wetland (acres)
Wetland Ditch	Adjacent Non-RPW	Emergent Linear	0.15	-
Total	**-**	**-**	**17.67**	**0**

*Only includes the portion of the feature that was located on-site. Feature extends beyond the project site limits.
**Wetland previously delineated by Kleinfelder

3.2 Wetland Assessment – ORAM

The Ohio EPA developed the Ohio Rapid Assessment Method (ORAM) to determine the appropriate category of a particular wetland under the Wetland Antidegradation Rule, Ohio Administrative Rule (OAC) 3745-1-54. The ORAM assigns a score to a wetland based on a series of answers to questions dealing with wetland functions and features. The score is used to rate wetlands as Category 1, 2, or 3 which corresponds with low, medium, and high quality, respectively. Wetlands on the Eastern Project Site were scored and categorized by Kleinfelder. Wetlands on the Western Project Site were scored and categorized by EMH&T. Table 6 summarizes the ORAM scores for each wetland located on the entire site. Copies of the ORAM dataforms for wetlands scored by EMH&T are included in Appendix C.

TABLE 6
Wetland ORAM Summary

Wetland	Size	Score	Category	Comments
EASTERN PROJECT SITE (Kleinfelder)				
1	0.08	34	1	Scored by Kleinfelder
2	0.15	30	1	Scored by Kleinfelder
3	0.09	20.5	1	Scored by Kleinfelder
4	0.052	33.5	2	Scored by Kleinfelder
6	0.126 *	39	2	Scored by Kleinfelder
17	1.83	46	2	Scored by Kleinfelder
30	5.39	31.5	1	Scored by Kleinfelder
33	0.04	62	3	Scored by Kleinfelder
34	0.22	44	2	Scored by Kleinfelder
35	0.34	22	1	Scored by Kleinfelder
36	0.08	19	1	Scored by Kleinfelder
37	0.02	20	1	Scored by Kleinfelder
38	0.05	27	1	Scored by Kleinfelder
39	0.23	59	3	Scored by Kleinfelder
40	0.23	20	1	Scored by Kleinfelder

Table 6 is continued on Page 12

Table 6 continued from Page 11

Wetland	Size	Score	Category	Comments
WESTERN PROJECT SITE (EMH&T)				
1	5.91	30.5	2	Scored by EMH&T
2	5.21*	69	3	Scored by EMH&T
3	0.08	50	2	Scored by EMH&T
4	0.11	48.5	2	Scored by EMH&T
5	0.04	18	1	Scored by EMH&T
6	0.08	28.5	1	Scored by EMH&T
7	0.06	26.5	1	Scored by EMH&T
8	0.14	27	1	Scored by EMH&T
9	5.89	68	3	Scored by EMH&T
Wetland Ditch	0.15	17	1	Scored by EMH&T

***Only includes the acreage for the feature that was located on the site. Feature extends beyond the site boundary.**

3.3 Headwater/Qualitative Habitat Evaluation Index (HHEI/QHEI)

The Primary Headwater Evaluation Index (HHEI) provides a mechanism for assessing the quality of streams with watersheds less than or equal to one square mile. According to Ohio EPA, a primary headwater habitat stream is defined as a "*surface water of the state, as defined in Administrative Code 3745-1-02, having a defined bed and bank, with either continuous or periodical flowing water, with a watershed area less than or equal to 1.0 mi^2 and a maximum depth of water pools equal to or less than 40 cm*" (Ohio EPA, 2002). HHEI scoring is based on three parameters that are associated with habitat quality in small headwater streams: substrate type, maximum pool depth, and bank full width. Using this scoring system, Ohio EPA places headwater streams into Class I, II, or III, with Class III representing high-quality cool water streams, Class II representing warm water streams, and Class I representing ephemeral (seasonally dry) streams with limited ecological function.

Each stream identified on the site was assesses either by Kleinfelder or EMH&T using the HHEI. Streams on the Eastern Project Site were scored by Kleinfelder. Streams on the Western Project Site were scored by EMH&T. A summary of HHEI scores and stream classifications are presented in Table 7. Copies of the HHEI dataforms for streams scored by EMH&T are presented in Appendix D.

TABLE 7
Stream HHEI Summary

Stream	Onsite Length (linear feet)	Score	Classification
EASTERN PROJECT SITE (Kleinfelders)			
1	-	36	Modified Class 2 PHWH Intermittent
2	856	18	Modified Class 1 PHWH Ephemeral
3	4,224	53	Class 3 PHWH Perennial
4	154	24	Modified Class 1 PHWH Ephemeral
5	286	17	Modified Class 1 PHWH Ephemeral
6	316	31	Rheocrene Potential Evaluate
7	2,829	60	Class 3 PHWH Perennial
8	92	23	Class 1 PHWH Ephemeral
10	441	23	Class 1 PHWH Ephemeral
11	146	22	Class 1 PHWH Ephemeral
12	130	17	Class 1 PHWH Ephemeral
26	200	21	Class 1 PHWH Ephemeral
29	167	17	Modified Class 1 PHWH Ephemeral
30	1,324	41	Rheocrene Potential Evaluate
31	127	25	Class 1 PHWH Ephemeral
32	514	38	Rheocrene Potential Evaluate
33	103	26	Class 1 PHWH Ephemeral
34	104	25	Class 1 PHWH Ephemeral
35	184	24	Class 1 PHWH Ephemeral
38	45	21	Class 1 PHWH Ephemeral
39	106	21	Modified Class 1 PHWH Ephemeral
40	782	22	Class 1 PHWH Ephemeral
41	147	23	Class 1 PHWH Ephemeral
42	223	25	Class 1 PHWH Ephemeral
43	125	22	Class 1 PHWH Ephemeral
50	48	22	Modified Class 1 PHWH Ephemeral
100	224	27	Modified Class 1 PHWH Ephemeral
101	-	24	Modified Class 1 PHWH Ephemeral
WESTERN PROJECT SITE (EMH&T)			
1	725	36	Class II PHWH Intermittent
2	168	36	Class II PHWH Intermittent
3	356	26	Class I PHWH Intermittent
4	1,947	26	Class I PHWH Intermittent
5	96	31	Class II PHWH Intermittent
6	140	15	Class II PHWH Intermittent
7	2,232	45	Class II PHWH Perennial

4.0 OTHER AGENCY COORDINATION

Prior to any activity authorized under Section 401/404 of the Clean Water Act, coordination is required with the USFWS, Ohio Department of Natural Resources (ODNR), and the Ohio Historic Preservation Office (OHPO). To fulfill these requirements, these agencies were contacted about available information pertaining to the site. The information obtained from these agencies is summarized below.

4.1 Federally Listed Threatened or Endangered Species

The USFWS's, *Federally Listed Species by Ohio Counties* has been reviewed (USFWS, 2012). According to the list there are two species indicated for Harrison County: *Myotis sodalis* (Indiana bat) - Endangered and *Haliaeetus leucocephalus* (bald eagle) – Species of Concern.

An Indiana bat mist-net survey was conducted for Phase I of the proposed project from May 31 to June 1, 2012 by Kleinfelder. The results of the survey detected no Indiana bats at the site. A copy of the bat survey and habitat report was provided to the USFWS in June 2012. In correspondence dated June 18, 2012, the USFWS concurred that the mist-net survey results and habitat information provided in the report document the likely absence of Indiana bats in the Eastern Project Site. As a result, the USFWS granted summer and winter tree clearing approval for Phase I of the project.

On November 16, 2012, a request for Threatened and Endangered Species Consultation was submitted to the USFWS for Phase II of the proposed project. This request provided a summary of the forested communities located on the approximately 250-acre Western Project Site. Approximately 57 acres of wooded property are proposed to be cleared as part of the Phase II construction. Based on the USFWS's Indiana bat habitat description, trees found within the project boundaries that exhibit the characteristics of potential Indiana bat habitat are limited. The forest areas and habitat composition within the Western Project Site are nearly identical to the Eastern Project Site. Additionally, UEOM has indicated that tree clearing activities will occur between October 1st and March 31st.

In correspondence dated December 12, 2012, the USFWS concluded that impacts to Indiana bats as a result of the Phase II are likely to be insignificant or discountable. This determination is based on the negative results of the mist-net survey completed for Phase I and the implementation of seasonal tree cutting restrictions for Phase II of the project. Additionally, with regards to the bald eagle, the USFWS concluded that due to the project type, location, and onsite habitat, this species would not be expected within the project area, and no impact to this species is expected. A copy of the December 12, 2012 letter from the USFWS has been included in the Appendix E.

4.2 State Listed Rare or Endangered Species

ODNR was contacted for any information available concerning the presence of state listed endangered, threatened and proposed species or their habitat for the project site. ODNR was requested to provide information through a formal search of the ODNR Natural Heritage Database.

The database search revealed that no records of rare or endangered species or their habitat were present on the project site. The search revealed no records for Indiana bat (*Myotis sodalis*) capture locations within a five mile radius or hibernacula within a ten mile radius of the project site. The nearest known bald eagle nest is about 4.5 miles to the south. There is one record of Drummonds Aster (*Symphyotrichum drummondii*), a state threatened species, within 1 mile of the project site. A copy of the ODNR letter is included in Appendix F.

4.3 Archaeological and Historical Information

Phase I and Phase II archaeology investigations were completed on an approximately 88-acre portion of the 265-acre Eastern Project Site. In total, eight prehistoric archaeological sites were recorded at the site; three of which were determined eligible for inclusion in the *National Register of Historic Places* (NRHP) under Criterion D. As recommended by the OHPO, Phase III field investigations were completed by EMH&T in October and November, 2012. EMH&T is currently in the process of completing the Phase III reporting requirements as outlined in the Data Recovery Plan and the Memorandum of Agreement (MOA) between USACE, the OHPO, and the UEOM. The anticipated delivery date of the final Phase III Archaeological Survey documentation is November 14, 2013.

Phase I archaeology investigations were completed in November and December, 2012 on approximately 250 acres of the Western Project Site. The results of the field investigations discovered eight prehistoric archaeological sites and one historic site on the Phase II property. None of the recorded sites were determined to be potentially eligible for the NRHP. EMH&T has completed the Phase I Cultural Resources Report for the Phase II property, which is included under separate cover.

One historic site, the Crimm Farm, was identified as part of the cultural resources investigation performed on the 265-acre Eastern Project Site. Due to the deteriorating condition of the structures and evidence of multiple alterations, this site was not recommended as eligible for the NRHP under Criterion C or Criterion D. This determination was concurred with by the OHPO. One historic site, the Reese Farm, was also identified as part of the cultural resources investigation performed on the 250-acre Western Project Site. This site was also not recommended to be eligible for the NRHP under Criterion B, C, or D. The above determinations are based on each site's lack of significance and integrity (i.e. location, design, setting, materials, workmanship, feeling, and association). Given that no NRHP eligible historic sites are located within the project area, construction of the proposed natural gas processing facility is not anticipated to have an adverse visual effects on the integrity of historic properties.

5.0 OFF-SITE ALTERNATIVE ANALYSIS DISCUSSION

An alternative analysis is required to be performed as part of an Individual 404 permit review. The Individual 404 permit review also requires that an applicant consider whether a project could be built off-site to accommodate the desired goal but have no impact to Waters of the United States.

The Harrison Hub Facility's location was selected primarily due to its access to existing railroad infrastructure. The level of rail access to this facility provides for the most efficient and

environmentally sound means of transporting large volumes of finished products (propane, butane, and natural gasoline) from the facility to market. Without access to rail, the product would need to be shipped by truck due to the lack of pipeline infrastructure. This would dramatically increase the local truck traffic causing a need for road widening projects and an increase in road maintenance. It would also not be cost effective to ship the project by truck when compared to rail. Equally as important, the location of this fractionation facility is central to well development activities throughout the region. A centrally located fractionation facility is key in minimizing the infrastructure needed to move the NGL's from the surrounding well pads to the fractionation facility in order to get the product to market.

Gas wells in the surrounding area that have been drilled since Phase I was initially designed are exceeding production expectations. As yields from wells increase throughout the region, the volume of NGLs to be processed at this facility is expected to increase. In addition, UEOM has been successful in securing contracts with drilling companies to process NGLs. For this reason the company now needs the capability to expand the facility and handle the expected increase in NGL production. The location for Phase II of the project was chosen for the following reasons:

- Proximity to Phase I of the project. Phase I is currently under construction.
- Ingress and egress from existing mainline railroad tracks.
- Easy ingress and egress from State Route 151.
- Ability to avoid and minimize impacts to wetlands and streams.
- Relatively level and contiguous site with minimal grade changes.

6.0 ON-SITE AVOIDANCE AND MINIMIZATION DISCUSSION

Phase I avoided 8.74 acres of wetland and 13,170 linear feet of stream. This includes avoidance of 8.67 acres of jurisdictional wetlands and 12,287 linear feet of jurisdictional stream. Because of avoidance and minimization on Phase I, the applicant was able to move forward with a Nationwide Permit #39 and a Level 1 Isolated Wetland Permit for minor wetland and stream impacts. In addition, 3.07 acres of on-site riparian habitat was to be avoided and preserved by means of an environmental covenant as mitigation for stream impacts.

For Phase II, on-site alternatives were also considered during the design process. Elements of the Preferred Alternative were carefully considered in an effort to maximize developable area while minimizing or avoiding stream and wetland impacts. UEOM chose the Preferred Alternative option shown in Exhibits 9, 9a, 10, and 10a.

The proposed Preferred Alternative layout, that shows the rail, storage, and gas processing facilities, was chosen so that as many waters on the site are retained and preserved without compromising the economic potential of the site. Key determinates in the locations for each element of the overall facility are:

- Proximately to existing mainline railroad tracks and Phase I;
- Site topography; and
- Minimizing impacts to wetlands, streams, and forested areas.

The Preferred Alternative shows the most practical development plan based on the proximity to existing mainline tracks and Phase I. The existing mainline track run along the northern site boundary, south of Conotton Creek. Due to the overall size of the rail facility at full buildout, the applicant requires two points of access between the mainline track and the proposed rail facility. There also must be a connection between Phase I and Phase II. The most practical solution is to expand Phase I westward. Equally as important to the alignment is the site's topography. The rail facility must be at the same elevation as the mainline track so that trains entering or exiting the facility can do so at grade. For a variety of reasons, rail facilities must also be level which can present a problem in the Eastern Ohio hill region. The flat bottom land along Conotton Creek was a technically feasible and economically practical location for the facility because it minimizes earthwork to the maximum extent practical in this region of the State. The pads for the processing and storage facilities can be elevated above the tracks and therefore are proposed south of the rail facility on higher ground.

The Preferred Alternative has also been designed in such a way to minimize impacts to the majority of wetlands and streams on the site. High quality features, such as Wetland 2, Wetland 9, Wetland 17, and Stream 7, have been successfully avoided and will be preserved as part of the mitigation plan. Originally the western ingress and egress point between the proposed rail facility and the mainline tracks would have impacted a portion of Wetland 2. Wetland 2 is a Category 3, high quality wetland, so the applicant's engineer was able to position the rail facility in such a way as to avoid this feature. Under the Preferred Alternative, efforts to avoid and minimize impacts on Phase II brings the amount of jurisdictional waters avoided for both phases of the project to 17.69 acres of wetlands and 17,396 linear feet of stream. The majority of the facility is also located within the existing agricultural fields on the site, which avoids unnecessary tree clearing.

Acceptance of the Preferred Alternative is critically important to the economic viability of the project. Avoidance of impacts on the site was evaluated under the Minimal Degradation Alternative shown in Exhibits 11 and 11a. This Alternative would avoid an additional 8.54 acres of wetland and 1,288 linear feet of stream, when compared to the Preferred Alternative. However, the Minimal Degradation Alternative results in the loss of the proposed expansion of the gas processing facility, which would cause the loss of economic benefits. The economic benefits of this project are discussed in detail in Section 7.7 (10h), Social and Economic Benefits to be Gained, in Section 7.8 (10i), Social and Economic Benefits to be lost, and in the Social and Economic Justification (SEJ) Table in Appendix G.

The Non-Degradation Alternative, shown in Exhibits 12 and 12a, would avoid all impacts to streams and wetlands on site. The Non-Degradation Alternative results in a substantial loss of economic benefits, more than the Minimal Degradation Alternative.

7.0 ANTIDEGRADATION RULE REQUIREMENTS DISCUSSION

The alternatives analysis of the Preferred, Minimal Degradation and Non-Degradation Alternatives are discussed in the following sections. Each alternative includes a discussion of the expected magnitude of the lowering of water quality associated with each scenario. As required by the antidegradation rule, the anticipated impact of the proposed lowering of water quality on

aquatic life and wildlife and the overall aquatic community structure and function is included. In addition, mitigative techniques are also discussed.

The sequence of the alternatives analysis discussion follows the format of the Application for Ohio EPA Section 401 Water Quality Certification and the numbers following the heading titles correspond with those indicated on the application form.

7.1 Overall Project Description (10a):

UEOM is proposing to expand the Harrison Hub Facility by constructing Phase II. The Phase II expansion will include construction of an additional natural gas liquid (NGL) fractionation processing facility, additional NGL storage areas, and expansion of the rail distribution facility near the Village of Scio, Harrison County, Ohio. EMH&T is preparing a 404/401 permit application for Phase II of the Harrison Hub Facility for UEOM. This document will be an amendment to a Nationwide Permit #39 that was issued on October 23, 2012 for Phase I of the same project. The USACE ID Number for this project is: 2012-254-TUS-UN Trib to Conotton Creek. Phase II of the proposed development is planned to be built on both the original 265 acre Eastern Project Site as well as the 250 acre Western Project Site that was acquired for Phase II of the project. The majority of Phase II is proposed to occur on the Western Project Site.

Preferred Alternative

Phase I was previously permitted under a Nationwide #39 and is currently under construction on the Eastern Project Site. Phase I of the Harrison Hub consists of three processing plants, storage tanks, and a truck and rail facility for outbound shipment of propane, butane, pentanes, and natural gasoline. Phase I required 515 linear feet (0.068 acres) of impacts to jurisdictional streams to construct road crossings and rail crossings. Impacts were minimized to the maximum possible extent in order to build Phase I of the facility. Culverts were used within Streams 2, 3, and 7 to conduct flow under the proposed roads and railroad lines. Streams 26 and 29 were the upstream most sections of ephemeral streams. These two streams were excavated and then filled with crushed stone on the undisturbed subgrade. The 0.006 acre of impact to jurisdictional Wetland 30 was necessary in order to construct a site access roadway. Phase I of the project also required impacts to 212 linear feet (0.009 acre) of isolated stream in order to grade the site as well as to 0.18 acre isolated wetlands on the site.

Phase II expansion will consist primarily of additional rail infrastructure to handle the large volume of rail car shipments of NGL's to market. The location of the Phase II rail facility is dictated by proximity and alignment with the mainline track and Phase I of the rail facility. The expansion of the rail facility must be constructed between the existing main line track and Phase I. A separate rail loading facility for condensate is to be constructed south of the rail yard and north of the proposed natural gas processing plants and storage tanks.

Additional natural gas processing plants and storage tanks are also planned. Natural gas used by consumers is almost entirely methane, but natural gas at a rich gas wellhead is commonly mixed with other hydrocarbons. Common NGLs extracted from natural gas include ethane, propane, butane, and pentanes. Natural gas processing consists of separating all of the various hydrocarbons and fluids from pure natural gas, to produce what is known as 'pipeline quality' dry

natural gas (methane). The complete processing of natural gas takes place at a processing plant located in a gas producing region. Most of the separated NGLs must also be temporarily stored in tanks before it can be shipped out by rail or pipeline (Natural Gas.Org, 2004-2011). Ethane and Methane will go straight into a pipeline following processing.

The Preferred Alternative, as displayed on Exhibits 9, 9a, 10, and 10a, shows that the Phase II expansion will impact 8.72 acres of jurisdictional wetlands and 1,478 linear feet of jurisdictional stream. This includes impacting 2.34 acres of Wetland 30, which was previously identified on the Eastern Project Site. Wetlands 1, 5, 6, 7, 8 and Wetland Ditch are located in the center of the development footprint and impacts are necessary in order to grade the facility. The applicant's engineers have analyzed the possibility of relocating the flow for Stream 1, Stream 4, and the Wetland Ditch into a ditch feature around the perimeter of the development. Relocating the flow into open ditches is less expensive than using pipe and therefore is usually preferred. However, on this project the large size of the pad needed for the facility and the existing topographic constraints makes a relocation of flow into a ditch impractical. The Preferred Alternative requires the flow from these features to be piped beneath the development. Wetland 30 is located in an area needed for additional storage capacity for NGLs and will be graded for a facility pad. Stream 7 on the Eastern Project Site will be impacted for a proposed 40 linear feet road crossing for access to a proposed flare pad. No isolated wetlands or streams are proposed to be impacted by Phase II. A summary of the features to be impacted under Phase II of the project is shown in Table 8 and in the 401 Impact Table found in Appendix H.

TABLE 8
Proposed Impacts to Water/Wetland Features for the Preferred Alternative

Feature ID	Total Wetland Size (acres)	Total Stream Length (linear feet)	Total Wetland Impacted (acres)	Total Stream Length Impacted (linear feet)
Stream 7 (EPS*)	-	2,774	-	40
Stream 1 (WPS*)	-	725	-	391
Stream 4 (WPS*)	-	1,947	-	1,047
-	-	-	-	-
Wetland 30 (EPS*)	5.384	-	2.34	-
Wetland 1 (WPS*)	5.91	-	5.91	-
Wetland 5 (WPS*)	0.04	-	0.04	-
Wetland 6 (WPS*)	0.08	-	0.08	-
Wetland 7 (WPS*)	0.06	-	0.06	-
Wetland 8 (WPS*)	0.14	-	0.14	-
Wetland Ditch (WPS*)	0.15	-	0.15	-
Total	**-**	**-**	**8.72**	**1,478**

*WPS stands for Western Project Site, EPS stands for Eastern Project Site

Total fill generated from site grading of the surface water/wetland features during construction of the Preferred Alternative is estimated to be approximately 131,675 cubic yards of native clean fill and ballast.

Minimal Degradation Alternative

The impacts associated with the Minimal Degradation Alternative are substantially reduced from those shown in the Preferred Alternative. This alternative focuses on the expansion of additional rail infrastructure and some temporary storage tanks, while eliminating additional processing capability. The location of the Phase II rail facility would be slightly realigned in order to reduce impacts to Wetland 1. The expansion of the processing facility and the separate rail loading facility for condensate would be eliminated from the plan, thus reducing the size of the overall development footprint. Graded pads holding additional storage tanks would be constructed in and around Streams 1 and 4 as well as most of the wetlands on the site. The reduced footprint of the overall development would allow for the proposed storm water basins to be smaller and placed strategically around stream and wetland features. Additional processing facilities proposed for construction on the Eastern Project Site would also be eliminated from the plan.

The Minimal Alternative, as displayed on Exhibits 11 and 11a, shows that the construction of this facility would impact 0.18 acres of jurisdictional wetlands and 190 linear feet of jurisdictional stream. This alternative eliminates the proposed impacts to Wetland 30 that was previously identified on the Eastern Project Site. No isolated wetlands or streams are proposed to be impacted by Phase II. A summary of the features to be impacted under Phase II of the project is shown in Table 9 and in the 401 Impact Table found in Appendix H.

TABLE 9
Proposed Impacts to Water/Wetland Features for the Minimal Alternative

Feature ID	Total Wetland Size (acres)	Total Stream Length (linear feet)	Total Wetland Impacted (acres)	Total Stream Length Impacted (linear feet)
Stream 7 (EPS)	-	2,774	-	40
Stream 1 (WPS)	-	725	-	0
Stream 4 (WPS)	-	1,947	-	150
-	-	-	-	-
Wetland 30 (EPS)	5.384	-	0	-
Wetland 1 (WPS)	5.91	-	0.13	-
Wetland 5 (WPS)	0.04	-	0	-
Wetland 6 (WPS)	0.08	-	0	-
Wetland 7 (WPS)	0.06	-	0	-
Wetland 8 (WPS)	0.14	-	0	-
Wetland Ditch (WPS)	0.15	-	0.05	-
Total	**-**	**-**	**0.18**	**190**

Total fill generated from site grading of the surface water/wetland features during construction of the Minimal Degradation Alternative is estimated to be approximately 2,925 cubic yards of native clean fill and ballast.

Non-Degradation Alternative

The Non-Degradation Alternative, as shown on Exhibits 12 and 12a, is similar to the Minimal Degradation Alternative with a few notable exceptions. This alternative focuses on the necessary expansion of additional rail infrastructure, while eliminating all temporary storage tanks and additional processing capability. As in the Minimal Degradation Alternative, the location of the Phase II rail facility would be relocated from its preferred location in order to eliminate impacts to Wetland 1. The rail infrastructure would be installed using a con-span. The con-span would be installed without impacts below the Ordinary High Water Mark (OHWM) of stream or inside wetland boundaries, thus eliminating all impacts to Stream 4 and Wetland 1. All other features on the site would be avoided.

Zero cubic yards of earthen material would be used to fill onsite streams/wetlands during the construction of the Non-Degradation Alternative.

7.2 Magnitude of the Lowering of Water Quality (10b):

Preferred Alternative

Water quality will be impacted through the loss of 8.72 acres of jurisdictional wetlands and 1,478 linear feet of jurisdictional stream. A full summary of wetland and stream impacts is presented in Section 7.1, Overall Project Description (10a) of this report. The project will impact 2.81 acres of Category 1 and 5.91 acres of a low quality Category 2 wetland. All stream impacts will occur to intermittent streams. A full summary of the total amount of wetland on-site, total amount of stream on-site, and habitat summary is presented in Section 3 of this report.

All streams on the site flow to Conotton Creek, which is designated as Warmwater Habitat (WWH) by the OAC Chapter 3745-1 Water Quality Standards (Ohio EPA). Sport and recreational fish are not found in the unnamed tributaries to Conotton Creek that are located on-site. However, sport and recreational fish occur downstream within the Tuscarawas and Muskingum Rivers. Even though construction work will occur in onsite streams and wetlands during the grading and construction activities, the aquatic communities downstream and, ultimately, the Tuscarawas and Muskingum Rivers, are unlikely to be adversely impacted. Sediment and erosion controls during project construction will protect these downstream populations from project-related impacts. The Conotton Creek watershed is mostly undeveloped farmland and this project is not expected to have a significant impact upon its water quality.

Phase I is already under construction, which has altered the topography, fauna, and flora on that portion of the site. The majority of the Phase II area has already been historically altered for agriculture while some portions of the Phase II area are currently forested. A few terrestrial biotas, including birds, amphibians, reptiles, small mammals, and invertebrates could be disturbed or displaced during construction. However, these wildlife species could re-colonize to other adjacent habitats.

Construction and grading activities will impact vegetation through removal of existing trees and shrubs within portions of the project site. Herbaceous ground cover will also be impacted by site grading. No impacts are anticipated to occur to threatened/endangered species as none are known to exist on the site, with the possible exception of the Indiana bat. Because of the possible presence of potential Indiana bat habitat, any onsite tree clearing will be completed between October 1st and March 31st. Written comments from USFWS and ODNR are further described in Section 4 of this report.

Minimal Degradation Alternative

The amount of impacts are substantially less on the Minimal Degradation Alternative. Expansion of the rail facility would still cause the displacement of some wildlife species. However, the impacts of the project upon water quality would be substantially less because of the avoidance of surface water features and almost all of the forested areas.

Non-Degradation Alternative

The Non-Degradation Alternative would not require the filling of any wetlands or streams, since no site development features would extend into the onsite stream/wetland areas.

7.3 Technical Feasibility, Cost Effectiveness, and Availability (10c):

Preferred Alternative

The Preferred Alternative is the most technically feasible and cost effective design for optimizing land use on site while providing for the most flexibility in fully expanding a NGL fractionation processing facility, NGL storage areas, and a rail distribution facility. The technology is available to complete this project as proposed. The Preferred Alternative provides for the Phase II expansion of the gas processing facility in addition to expanding Phase II of the rail facility. The Phase II gas processing facility is not feasible under the Minimal and Non-Degradation Alternatives due to the loss of significant developable space. Based on the economic benefits for the entire project, as outlined in the Social and Economic Justification (SEJ) table in Appendix G, the Preferred Alternative is the most cost effective based on the potential allowable development of a gas processing facility.

Minimal Degradation Alternative

The Minimal Degradation Alternative causes the loss of the Phase II portion of the gas processing facility, while still allowing for expansion of the rail facility and construction of some additional storage tanks. This Alternative is technically feasible to construct the rail portion of the project, but it is neither feasible nor cost effective as it pertains to the proposed expansion of the gas processing facility. The Minimal Degradation Alternative provides a much reduced number of stream and wetland impacts when compared with the Preferred Alternative. However, the resulting reduction of approximately 2,076,800 square feet of developable space would reduce the overall facility size by eliminating the gas processing facility. As shown on the SEJ table,

acceptance of the Minimal Degradation Alternative would greatly reduce economic benefits of the project.

Non-Degradation Alternative

The Non-Degradation Alternative is feasible in constructing the rail portion of the project, but not cost effective as compared to the Preferred Alternative as it pertains to the potential expansion of the gas processing facility. This Alternative is similar to the Minimal Degradation Alterative except that impacts to stream and wetlands would be eliminated by spanning them. Also, because other proposed road and utility stream crossings are not possible under this alternative, no additional storage tanks could be constructed. By eliminating impacts to all onsite jurisdictional waters, the Non-Degradation Alternative would result in the loss of 2,549,800 square feet of developable space as compared to the Preferred Alternative. As shown on the SEJ table, acceptance of the Non-Degradation Alternative would greatly reduce economic benefits.

7.4 Regional Sewage Collection and Treatment Facilities (10d):

A regional sewage collection and treatment facility is not applicable to this project.

7.5 Government and/or Privately Sponsored Conservation Projects (10e):

There are no government and/or privately sponsored conservation projects identified at the site.

7.6 Best Management Practices/Water Pollution Controls (10f):

Preferred Alternative

Best Management Practices (BMPs) for sediment and erosion control will be voluntarily implemented at all times during construction, in accordance with Ohio Division of Natural Resources guidance as outlined in their Rainwater and Land Development Manual. These site specific BMPs are being included in construction plans to decrease erosion and sedimentation during and after construction of the project. BMPs to be utilized include silt fence, filter socks, sediment traps, rock check dams, level spreaders, temporary and permanent seeding and mulching, construction road stabilization, temporary inlet protection, and sediment basins installed for construction and post-construction use. All BMP's will be maintained during construction activities and will remain in place until the site has been stabilized. All areas disturbed during construction will be seeded to encourage the establishment of a vegetative cover and decrease erosion potential.

UEOM is also voluntarily complying with water quality as required in the Ohio EPA NPDES stormwater general permit for construction activities. Stormwater detention will also be provided such that post-construction release rates are equal to or less than the pre-developed release rates from the site. Both detention and water quality will be provided by several onsite stormwater basins.

Minimal Degradation Alternative

The BMPs for sediment and erosion control are discussed as part of the Preferred Alternative.

Non-Degradation Alternative

The BMPs for sediment and erosion control are discussed as part of the Preferred Alternative.

7.7 Human Health and Water Resource Quality Impacts (10g):

Preferred Alternative

Since the surface waters at the site are not used for recreation or as a direct source of drinking water, no impacts are expected to occur to human health due to the potential implementation of the Preferred Alternative. The wetlands and streams impacted by the construction will lose pollutant-filtering, and sediment moving capabilities proportionate to the area of impact, but proposed wetland and stream mitigation will offset these impacts. The applicant is proposing to mitigate for wetland impacts off-site at a 1:1 ratio at the Little Stillwater mitigation site as well as by preserving 11.10 acres of Category 3 wetland and by enhancing 1.83 acres of Category 2 wetland on-site. The applicant is proposing to mitigate for stream impacts on-site by preserving 2,232 linear feet of potential Class III stream. Details regarding the mitigation plan are located in Section 7.11, Proposed Mitigation Techniques (10k) of this report.

Minimal Degradation Alternative

Since the surface waters at the site are not used for recreation or as a direct source of drinking water, the Minimal Degradation Alternative is not expected to have any impact on human health. The wetlands and streams impacted by the construction would lose pollutant-filtering and sediment moving capabilities proportionate to the area of impact, but proposed stream and wetland impacts would be offset by on-site preservation and purchasing credits at the Little Stillwater mitigation site.

Non-Degradation Alternative

Since the surface waters at the site are not used for recreation or as a direct source of drinking water, no impacts are expected to occur to human health under the Non-Degradation Alternative. Since no work would be performed in jurisdictional waters under the Non-Degradation Alternative, water quality functions and other wetland-related ecosystem services would remain essentially the same.

7.8 Social and Economic Benefits to be Gained (10h):

Preferred Alternative

The Social and Economic Benefits described for the Preferred Alternative are also shown in the SEJ Table in Appendix F and shown in the Preferred Alternative (Exhibits 9, 9a, 10, and 10a). Construction of the Harrison Hub Facility with its estimated 6,097,500 square feet of development

could potentially create 79 new permanent full time jobs and approximately 500 new temporary, construction jobs. The new permanent full time positions could potentially result in an estimated annual payroll of $12M while the 500 new temporary, construction jobs could potentially result in another $238M of payroll over the term of the project. Using these assumptions, the estimated annual federal payroll taxes for the new permanent full time positions would be approximately $1.8M while the estimated federal payroll taxes for the temporary jobs would be approximately $36.5M. Using the same assumptions, the estimated annual state payroll taxes for the new permanent full time positions would be approximately $478K while the estimated state payroll taxes for the temporary jobs would be approximately $9.5M. Over the term of the project, the local sales and use taxes generated from the potential Preferred Alternative would be an estimated $1.4M, while the state sales and use taxes generated from the project would be an estimated $5.2M. The Preferred Alternative is anticipated to generate approximately $114.8M in annual revenue.

The Preferred Alternative for the Harrison Hub Facility will potentially create 79 full time jobs and 500 temporary jobs. These jobs will provide benefits to the local community of Scio, Ohio as well as surrounding communities in Harrison County. Industrial growth on such a large scale is expected to create high paying jobs and provide the resulting tax revenue to the state and local communities. Additionally, the facility is expected to indirectly benefit the local economy. Workers will need to buy or build homes, shop at local stores, eat at local restaurants, and support many different local businesses.

Minimal Degradation Alternative

The Social and Economic Benefits described for the Minimal Degradation Alternative (Exhibits 11 and 11a) are also shown in the SEJ Table in Appendix G. Construction of the Minimal Degradation Alternative with its estimated 4,020,700 square feet of development could potentially create 66 new permanent full time jobs and approximately 400 new temporary, construction jobs. The new permanent full time positions could potentially result in an estimated annual payroll of $10M while the 400 new temporary, construction jobs could potentially result in another $75M of payroll over the term of the project. Using these assumptions, the estimated annual federal payroll taxes for the new permanent full time positions would be approximately $1.5M while the estimated federal payroll taxes for the temporary jobs would be approximately $11.5M. Using the same assumptions, the estimated annual state payroll taxes for the new permanent full time positions would be approximately $399K while the estimated state payroll taxes for the temporary jobs would be approximately $3M. Over the term of the project, the local sales and use taxes generated from the potential Minimal Degradation Alternative would be an estimated $654K, while the state sales and use taxes generated from the project would be an estimated $2.4M. The Minimal Degradation Alternative is anticipated to generate approximately $73.7M in annual revenue.

The Minimal Degradation Alternative for the Harrison Hub Facility will potentially create 66 full time jobs and 400 temporary jobs. These jobs will provide benefits to the local community of Scio, Ohio as well as surrounding communities in Harrison County. Industrial growth on such a large scale is expected to create high paying jobs and provide the resulting tax revenue to the state and local communities. Additionally, the facility is expected to indirectly benefit the local

economy. Workers will need to buy or build homes, shop at local stores, eat at local restaurants, and support many different local businesses.

The implementation of the Minimal Degradation Alternative, however, would have a lesser amount of social and economic benefits compared to the Preferred Alternative based on a 6,097,500 square foot development project that will generate $114.8M in annual revenue as part of the Preferred Alternative as compared to a 4,020,700 square foot development project that will generate $73.7M in annual revenue as part of the Minimal Degradation Alternative.

Non-Degradation Alternative

The Social and Economic Benefits described for the Non Degradation Alternative (Exhibits 12 and 12a) are also shown in the SEJ Table in Appendix G. Construction of the Non Degradation Alternative with its estimated 3,547,700 square feet of development could potentially create 50 new permanent full time jobs and approximately 300 new temporary, construction jobs. The new permanent full time positions could potentially result in an estimated annual payroll of $5M while the 300 new temporary, construction jobs could potentially result in another $64M of payroll over the term of the project. Using these assumptions, the estimated annual federal payroll taxes for the new permanent full time positions would be approximately $771K while the estimated federal payroll taxes for the temporary jobs would be approximately $9.8M. Using the same assumptions, the estimated annual state payroll taxes for the new permanent full time positions would be approximately $202K while the estimated state payroll taxes for the temporary jobs would be approximately $2.6M. Over the term of the project, the local sales and use taxes generated from the potential Non Degradation Alternative would be an estimated $588K, while the state sales and use taxes generated from the project would be an estimated $2.2M. The Non Degradation Alternative is anticipated to generate approximately $35.7M in annual revenue.

The implementation of the Non Degradation Alternative, however, would have a significantly lesser amount of social and economic benefits compared to the Preferred Alternative based on a 6,097,500 square foot development project that will generate $114.8M in annual revenue as part of the Preferred Alternative as compared to a 3,547,700 square foot development project that will generate $35.6M in annual revenue as part of the Non Degradation Alternative.

7.9 Social and Economic Benefits to be Lost (10i):

Since the resources at the site are not unique natural systems, the functions and values of the impacted waters can be replaced through the proposed mitigation. The size and quality of the existing tributaries make recreational opportunities such as fishing, swimming, and wildlife observation effectively non-existent.

No direct or indirect loss of jobs is anticipated due to the development of the property since the site's previous use was for agriculture. The only economic loss would be related to the crops and/or animal products that were previously produced by the farm. With the number of small farms located in the surrounding area, this economic loss is anticipated to be minimal. Any economic loss due to this change in use will be more than replaced by the development of Harrison Hub Facility on the site. No direct or indirect lowering of property values is anticipated due to the construction of the Harrison Hub Facility.

7.10 Environmental Benefits Lost or Gained (10j):

Preferred Alternative

The Preferred Alternative will result in the loss of 2.81 acres of Category 1 wetlands: Wetland 30 on the Eastern Project Site, Wetlands 5-8 on the Western Project Site, and the Wetland Ditch on the Western Project Site. Additionally, this Alternative will result in the loss of 5.91 acres of a low quality Category 2 wetland: Wetland 1 on the Western Project Site. These features will be filled and graded to construct the proposed rail, storage, and gas processing facilities. Filling and grading of these features will eliminate their water quality filtering capability. However, this loss will be mitigated through the purchase of 9.0 acres of wetland credit at Ohio Wetlands Foundation's (OWF) Little Stillwater mitigation site located in Harrison County, Ohio as well as through preservation and enhancement of several on-site wetlands: Wetlands 2 and 9 on the Western Project Site and Wetland 17 on the Eastern Project Site. Wetlands 2 and 9 are high quality Category 3 wetlands that together total 11.10 acres on the site. Wetland 17 is a medium quality Category 2 wetland that totals 1.83 acres on the site. Wetland 2 will be preserved in its existing condition. The majority of Wetland 9 can be enhanced through wetland plantings that aim to improve the diversity of the vegetation. The purchased mitigation credit and on-site enhancement projects will increase the amount and quality of wetland within the local watershed. Through mitigation the project will add wetlands with improved function and value to the watershed; thereby improving downstream water quality.

The Preferred Alternative will also result in the loss of 1,478 linear feet of intermittent stream: Stream 7 on the Eastern Project Site and Stream 1 and Stream 4 on the Western Project Site. These features will be filled and piped to construct the proposed rail, storage, and gas processing facilities. The natural sediment-moving capabilities of Streams 1 and 4 will be eliminated upon their entering a pipe or stormwater system. The stream impacts associated with the Preferred Alternative will be mitigated on-site by preserving the entire length, which totals 2,232 linear feet, of Stream 7 along with a 50 foot wide associated stream buffer. Stream 7 is one of the larger streams located on-site in both length and flow regime as well as a potential Class III PHWH stream. The majority of the current onsite stream benefits including aquatic habitat and natural sediment moving capabilities will therefore be preserved. Details regarding the wetland and stream mitigation are located in Section 7.11, Proposed Mitigation Techniques (10k) of this report.

Minimal Degradation Alternative

The Minimal Degradation Alternative would result in the loss of 0.18 acre of Category 1 and low quality Category 2 wetlands: Wetlands 1 and Wetland Ditch on the Western Project Site. Small portions of these features would be filled and graded to construct the proposed rail and storage facilities. Filling and grading of small portions of these features would slightly decrease their water quality filtering capability. This loss would be mitigated through purchasing credit at the Little Stillwater mitigation site.

The Minimal Degradation Alternative would also result in the loss of 190 linear feet of intermittent stream: Stream 7 (EPS) and Stream 4 (WPS). This feature would be culverted to construct the proposed rail facility and road crossings to the proposed storage facilities. The natural sediment-