

**PIQUA WASHINGTON ROAD
364.1-ACRE STUDY AREA
WEST OF NORTH COUNTY ROAD 25A
NORTH OF FARRINGTON ROAD
EAST OF WASHINGTON ROAD
SOUTH OF DRAKE ROAD
WASHINGTON TOWNSHIP AND
CITY OF PIQUA, MIAMI COUNTY, OHIO**

Investigation of Waters of the U.S.

The New Albany Company LLC

and

The Piqua Land Company LLC

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1.0 INTRODUCTION

A routine delineation of Waters of the United States, including wetlands, has been conducted by EMH&T for an approximately 364.1-acre study area (Piqua Washington Road Site) located west of North County Road 25A, north of Farrington Road, east of Washington Road, and south of Drake Road, in Washington Township and the City of Piqua, Miami County, Ohio (Exhibit 1). The approximate center coordinates of the site are 40.113109°, -82.254518°. The site is located in the Garby Creek – Great Miami River subbasin (HUC: 05080001-07-05). The study area is regulated by the U.S. Army Corps of Engineers (USACE) Huntington District. This study was performed at the request of and for the exclusive use of The New Albany Company LLC and The Piqua Land Company LLC.

The study area consists of active farm fields, farmsteads/single-family residential lots, and wooded areas. The majority of the site consists of farm fields. Farmsteads and single-family residential lots are located along Farrington Road and Washington Road. Woodlots are located within the eastern and southeastern portions of the study area. Fencerows extend through the central and southern portions of the site.

Field investigations of the site were conducted on August 19 and 20, 2024 by EMH&T environmental scientists. The location and extent of the identified surface water features are summarized in the following sections. The New Albany Company LLC and The Piqua Land Company LLC are requesting a Preliminary Jurisdictional Determination and Approved Jurisdictional Determination for the potentially jurisdictional and non-jurisdictional features described below.

2.0 LITERATURE REVIEW

A review was made of available topographic maps, soils maps, and wetland inventory maps. This information helped determine topography and soil types present in the study area. It also identified any previously mapped wetlands and whether any portions of the study area were located within mapped floodways.

2.1 Topographic Features

As shown on Exhibit 2, the majority of the study area lies between approximately 910 feet and 950 feet in elevation (National Geodetic Vertical Datum) according to the United States Geological Survey (USGS) 7.5' Series *Pleasant Hill, Ohio* quadrangle (USGS, 1962). Two (2) streams are mapped within the study area. One (1) stream is mapped on the southern portion of the site and the second stream is mapped on the east-central portion of the site. No marsh symbols or open water ponds are mapped for the study area. During the field investigation, EMH&T observed a stream that corresponds to the stream mapped on the southern portion of the site.

2.2 Mapped Soils

According to the online *Soil Survey Geographic Database* for Miami County, Ohio (United States Department of Agriculture [USDA] - Natural Resources Conservation Service [NRCS], 2022) (Exhibit 3A), six (6) soils are mapped for the study area. The mapped soils are listed in Table 1 along with their hydric status. According to the historical *Soil Survey of Miami County, Ohio* (USDA, 1973), no marsh symbols or open water ponds are located within the study area (Exhibit 3B). Three (3)

drainageways are mapped on the site. The drainageway mapped on the southern portion of the study area corresponds to Stream 1 observed during the investigation. The drainageway mapped on the east-central portion of the study area was not observed during the field investigation, which means that is most likely represents a drain tile within the farm field. The drainageway mapped on the northeastern portion of the study area was observed along the northern boundary of the site, near the Drake Road right-of-way. This mapped drainageway was not observed within the farmed portion of the site, only at the culvert beneath Drake Road. This mapped drainageway most likely represents a drain tile within the farm field.

TABLE 1: Onsite Mapped Soils

Mapped Soil Unit	Map Unit Symbol	Hydric Status	Hydric Inclusions (%)	Location of Hydric Inclusions
Brookston silty clay loam, fine texture, 0 to 2 percent slopes	Bs	Hydric	--	--
Celina silt loam, 2 to 6 percent slopes	CeB	Non-hydric with hydric inclusions	Brookston (5%) Kokomo (5%)	Depressions
Crosby silt loam, Southern Ohio Till Plain, 0 to 2 percent slopes	CrA	Non-hydric with hydric inclusions	Kokomo, drained (5%)	Depressions
Crosby silt loam, Southern Ohio Till Plain, 2 to 6 percent slopes	CrB	Non-hydric with hydric inclusions	Kokomo, drained (5%)	Depressions
Medway silt loam	Md	Non-hydric with hydric inclusions	Sloan (5%)	Flood plains
Miamian silt loam, 2 to 6 percent slopes, eroded	MhB2	Non-hydric with hydric inclusions	Kokomo (5%) Celina (5%)	Depressions, moraines

A hydric soil is a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (USDA-NRCS, 2018). As shown on the Web Soil Survey for Miami County, Ohio (Exhibit 3A), Brookston silty clay loam, fine texture, 0 to 2 percent slopes (Bs), is mapped as a hydric soil. The remaining five (5) mapped soils are non-hydric soils with inclusions of Kokomo, Brookston, Millsdale, and Celina soils in depressions and ground moraines.

2.3 Hydrologic Conditions

As shown on Exhibit 4, the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) was reviewed for the study area (FEMA, 2011). The majority of the study area lies within Zone X (unshaded), which are areas mapped outside the 500-year floodplain. The corridor of the stream located within the southern portion of the site is mapped within Zone A, which are areas mapped inside the 100-year floodplain.

The United States Fish and Wildlife Service's (USFWS) National Wetlands Inventory Map (NWI) was also reviewed for the study area (USFWS, 2021). As shown on Exhibit 5, two (2) features were mapped partially within the study area. Two (2) riverine, intermittent, streambed, seasonally flooded (R4SBC) features are mapped within the east-central and southern sections of the study area. EMH&T observed one (1) stream during the field investigation on the southern section of the site. The mapped feature on the east-central portion of the site was not observed during the field investigation.

3.0 DELINEATION INVESTIGATION RESULTS

EMH&T conducted field investigations of the study area on August 19 and 20, 2024 to determine the location, extent, and quality of potential Waters of the United States, including streams and wetlands. The investigative methodology employed is summarized in Appendix A.

As shown on Exhibit 6, seven (7) potential wetlands and one (1) stream (or portions thereof) were identified within the study area. Table 2 lists the extent of the surface water features identified. The USACE wetland and upland data forms are provided in Appendix B. Photographs of the surface water features are included in the Photographs section.

3.1 Streams

One (1) potential stream was observed within the study area:

- Stream 1 is a seasonal intermittent stream that originates offsite and flows east onto the site from a culvert beneath Washington Road. The stream flows through the study area for 3,269 linear feet (LF). Stream 1 is an unnamed tributary to the Great Miami River. Stream 1 generally flows east and southeast through the study area before continuing off-site via a culvert under Farrington Road. Stream 1 has a watershed area of approximately 0.98 square mile upstream of this point. Stream 1 was observed to have a reliable ordinary high water mark (OHWM) approximately 8 feet wide, with a channel defined by bed and banks, and cobble/gravel/silt dominated substrate. Stream 1 was not flowing at the time of the field investigation. EMH&T observed saturated/pooled areas within the streambed. This seasonal intermittent stream is relatively permanent and, as such, is potentially jurisdictional.

3.2 Wetlands

Seven (7) potential wetlands were identified within the study area:

- Wetland A (0.30 acre) is a forested wetland that directly abuts Stream 1, a seasonally intermittent stream. The wetland has an observed, continuous surface connection to a seasonally intermittent stream within the study area and is therefore potentially jurisdictional.
- Wetland B (0.10 acre) is a forested wetland that directly abuts and has continuous surface connection to Stream 1, a seasonally intermittent, relatively permanent stream. As such, Wetland B is potentially jurisdictional.
- Wetland C (0.07 acre) is an emergent wetland that is entirely located within the farm field. Wetland C has a continuous surface connection to Stream 1, a seasonally intermittent, relatively permanent stream. As such, Wetland C is potentially jurisdictional.
- Wetland D (0.05 acre) is an emergent wetland that is partially located within the farm field and slopes into a cleared section of the woodlot. Wetland D is dominated by emergent vegetation. Wetland D has a continuous surface connection to Stream 1, a seasonally intermittent, relatively permanent stream. As such, Wetland D is potentially jurisdictional.
- Wetland E (0.09 acre) is a forested wetland located within a closed depression at the entrance of a residential lot along Farrington Road. Wetland E is located approximately 420 feet west of Stream 1. The intervening land consists of an upland farm field. No

evidence of a continuous surface water connection between Wetland E and any other surface water feature was observed. As such, Wetland E is potentially non-jurisdictional.

- Wetland F (0.20 acre) is an emergent wetland located within a closed depression at the edge of a farm field. Wetland F is located approximately 630 feet west of Stream 1. The intervening land consists of a mowed grass lawn and upland farm field. No evidence of a continuous surface water connection between Wetland F and any other surface water feature was observed. As such, Wetland F is potentially non-jurisdictional.
- Wetland G (0.06 acre) is an emergent wetland located within a closed depression at the eastern edge of the study area. This wetland is situated within a previously cleared area along a mowed trail. Wetland G is located more than 900 feet northwest of Stream 1. The intervening land consists of upland woods and upland farm field. No evidence of a continuous surface water connection between Wetland G and any other surface water feature was observed. As such, Wetland G is potentially non-jurisdictional.

3.3 Other Surface Water Features

No other surface water features were observed during the field investigation.

EMH&T collected four (4) individual upland points (Up -1 through Up -4) within the study area. The upland points were located within the farm fields. The farm field were planted with corn and soybeans during the field investigation. The fields appeared well maintained and there were no wetland indicators observed. The upland points are included in Appendix B.

TABLE 2: Extent of Onsite Surface Water Features

Feature ID	Location		Classification*	Stream		Wetland (AC)	Open Water (AC)	Ditch/Swale (LF)
	Latitude	Longitude		Length (LF)	Area (AC)			
Stream 1	40.107736°	-84.255455°	Seasonally Intermittent	3,269**	0.6	--	--	--
Wetland A	40.106889°	-84.252823°	PFO	--	--	0.30	--	--
Wetland B	40.106310°	-84.252878°	PFO	--	--	0.10	--	--
Wetland C	40.106350°	-84.252381°	PEM	--	--	0.07	--	--
Wetland D	40.105698°	-82.251979°	PEM	--	--	0.05	--	--
Wetland E	40.104578°	-82.253476°	PFO	--	--	0.09	--	--
Wetland F	40.104535°	-82.254107°	PEM	--	--	0.20	--	--
Wetland G	40.113339°	-82.250583°	PEM	--	--	0.06	--	--
Total				3,269	0.6	0.87	--	--
Potentially Jurisdictional				3,269	0.6	0.52	--	--
Potentially Non-Jurisdictional				--	--	0.35	--	--

*Wetland communities are classified according to the classification scheme of Cowardin et al. (1979):

PEM: Palustrine, Emergent

PFO: Palustrine, Forested

**Feature continues off-site.

4.0 REGULATORY JURISDICTION

Federal jurisdiction over various classes of water resources under the Clean Water Act has been recently redefined following the United States Supreme Court decision in *Sackett v. Environmental Protection Agency*. The Sackett decision defines Waters of the United States as: traditional navigable waters (TNWs); relatively permanent, standing or continuously flowing bodies of water that are connected to a TNW; and wetlands with a continuous surface connection to a relatively permanent water (RPW) or TNW. Additionally, under the 2008 *Rapanos* Guidance (United States Environmental Protection Agency [USEPA] & USACE, 2008), relatively permanent waters include tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically three months). Based upon the foregoing, perennial and intermittent tributaries and wetlands that abut/adjoin perennial and intermittent tributaries are potentially jurisdictional.

The Revised Definition of “Waters of the United States”; *Conforming* was published in the Federal Register (33 CFR Part 328 & 33 CFR Part 120, 2023) and became effective on September 8, 2023. This final rule conforms the definition of “waters of the United States” to the Sackett decision. However, this rule is currently enjoined in 27 states, including Ohio. In those states, the USACE is interpreting “waters of the United States” consistent with the pre-2015 regulatory regime and the Sackett decision.

Based on this understanding, the potential jurisdictional status of the waters identified within the study area is summarized in Table 3. This understanding of federal jurisdiction is subject to change, pending the issuance of additional guidance by the USACE, rulemaking and/or litigation. An Approved Jurisdictional Determination is requested for the potentially non-jurisdictional features.

TABLE 3: Jurisdictional Classification of Onsite Surface Water Features

Feature ID	Streams			Wetlands			Ponds			Ditch/ Swale
	TNW	RPW	Non-RPW	(A)	(B)	(C)	(A)	(B)	(C)	
Stream 1	--	X	--	--	--	--	--	--	--	--
Wetland A	--	--	--	--	X	--	--	--	--	--
Wetland B	--	--	--	--	X	--	--	--	--	--
Wetland C	--	--	--	--	X	--	--	--	--	--
Wetland D	--	--	--	--	X	--	--	--	--	--
Wetland E	--	--	--	--	--	X	--	--	--	--
Wetland F	--	--	--	--	--	X	--	--	--	--
Wetland G	--	--	--	--	--	X	--	--	--	--

TNW: Traditional Navigable Water

RPW: Relatively Permanent Waters (non-navigable tributaries that flow continuously year-round or at least seasonally)

Non-RPW: Non-Relatively Permanent Waters (non-jurisdictional)

Wetlands: (A) Abutting/adjoining a TNW; (B) Abutting/adjoining an RPW; (C) Non-Jurisdictional

Ponds: (A) Impoundment or abutting/adjoining a TNW; (B) Impoundment or abutting/adjoining an RPW; (C) Non-jurisdictional

Impacts to Waters of the United States, including jurisdictional streams and wetlands, are regulated by the USACE and the USEPA through Section 404 of the Clean Water Act (33 U.S.C. 1344). Prior to federal authorization for impacts to streams or wetlands, certification must also be obtained from the Ohio EPA as defined in Section 401 of the Clean Water Act (33 U.S.C. 1341). Accordingly, no

filling may occur in the potentially jurisdictional streams and wetlands described in this document without appropriate permits and authorization from the USACE and Ohio EPA.

The Ohio EPA regulates discharges of fill to non-jurisdictional (isolated) wetlands in the State of Ohio as provided in Sections 6111.021 through 6111.029 of the Ohio Revised Code (ORC). Accordingly, no filling may occur in non-jurisdictional wetlands without an appropriate Isolated Wetland Permit from the state. Additionally, confirmation of non-jurisdictional status must first be obtained through an Approved Jurisdictional Determination by the USACE. Impacts to certain other non-jurisdictional waters considered Waters of the State (as defined under ORC 1521.01), may be authorized via a Waters of the State Authorization Letter under ORC 6111.03(J)(1).

5.0 CONCLUSIONS

A routine delineation of Waters of the United States, including streams and wetlands, was conducted and a report was prepared by EMH&T for the (Piqua Washington Road Site. The approximately 364.1-acre study area is located west of North County Road 25A, north of Farrington Road, east of Washington Road, and south of Drake Road, in Washington Township and the City of Piqua, Miami County, Ohio. This study was performed at the request of and for the exclusive use of The New Albany Company LLC and The Piqua Land Company LLC.

The results of the delineation identified one (1) potentially jurisdictional, seasonally intermittent stream (3,269 LF) and four (4) potentially jurisdictional wetlands (0.52 acre). Four (4) potentially non-jurisdictional wetlands (0.35 acre) were also identified within the study area boundaries. The boundaries and jurisdictional status of the surface water features are potential until verified by the USACE.

6.0 REFERENCES

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APPENDIX A:
Investigative Methodology

INVESTIGATIVE METHODOLOGY

Wetlands

According to the Federal Register (1980; 1982), wetlands are defined as *Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.* Potential wetlands located on non-agricultural lands are identified using the 1987 Wetland Delineation Manual (Environmental Laboratory, 1987) for confirmation by the U.S. Army Corps of Engineers (USACE).

Under normal site conditions, all three (3) indicators of jurisdictional wetlands including the presence of hydrophytic macrophytes, hydric soils and certain hydrologic indicators must be identified to meet the criteria for a jurisdictional wetland (Environmental Laboratory, 1987). As such, identification of potential wetlands requires 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 are determined, in accordance with the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region, Version 2.0* (USACE, 2010). Recorded vegetative data consists 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 are recorded. Within a 30' radius of the plot center, trees with the largest relative basal area and woody vines with the greatest number of stems are recorded. Species within each of these layers are listed on data forms in order of dominance.

Dominance is determined for each stratum individually. Dominant species include those that comprise 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 is determined to be present when more than 50 percent of the dominants in a sample area are listed as facultative (FAC), facultative wetland (FACW) or obligate wetland (OBL) plants according to Lichvar (2016).

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

The boundaries of areas that meet all three (3) wetland criteria are identified and measured in the field. Points at which dominant vegetation species changes from wetland to upland, where soils change from hydric to non-hydric, or where indicators of wetland hydrology are no longer observed are noted. The characteristics of each community type are recorded on dataforms and sample points are chosen to represent both an identified potential wetland and its surrounding upland community. All potential wetlands delineated in the field are marked with flagging and mapped using a Trimble GeoXH GPS unit. The dominant vegetation, soils, and indicators of wetland

hydrology are described on delineation forms. Wetland communities are classified according to the classification scheme of Cowardin et al. (1979).

Wetlands are further classified using the Ohio Rapid Assessment Method (ORAM) Version 5 (Ohio EPA, 2001). The ORAM seeks to determine whether wetlands are rated as Category 1, 2, or 3 based on the State of Ohio Wetland Water Quality Standards. Category 1 wetlands exhibit limited quality, function, or value. Category 2 wetlands exhibit moderate quality, function, or value; this includes wetlands that have been degraded but have reasonable potential for restoration (Modified Category 2). Category 3 wetlands are wetlands of superior quality, function, or value.

Streams

The centerline of the streams are mapped for their entire length found on-site using a Trimble® GPS unit. Ordinary High Water Marks (OHWM), which define the outermost regulatory boundaries of streams and open waters, are flagged and mapped using the GPS unit.

Streams are classified as ephemeral, intermittent, or perennial based on site observations, and are assigned a regulatory classification according to the most recent USACE guidance. Streams are also assessed using the Ohio EPA's Qualitative Habitat Evaluation Index (QHEI) and/or Headwater Habitat Evaluation Metric (HHEI). Assessment locations are placed in representative reaches of the streams within the assessment area.

The QHEI is used for streams with drainage areas greater than one square mile and pools with maximum water depths greater than 15.75 in (40 cm) (Ohio EPA 2006). QHEI scoring is based on substrate types, in-stream cover, channel morphology, riparian quality and bank erosion, pool/glide and riffle/run quality, and gradient. These metrics reflect stream habitat features that are correlated with the potential to attain the aquatic life use designation for Ohio streams.

Streams that do not meet these requirements are assessed using the HHEI (Ohio EPA, 2020). HHEI scoring is based on three (3) parameters that are associated with habitat quality in small headwater streams: substrate type, maximum pool depth and bankfull width. Using the HHEI scoring system, streams may be categorized as Class I, II or III primary headwaters (PHW). Class III represents streams with perennial flow with moderately to highly diverse communities of cold water adapted fauna present year-round; Class II represents streams with intermittent or perennial flow derived from shallow groundwater with moderately diverse communities of warm water adapted fauna present either seasonally or year-round; and Class I represents ephemeral (seasonally dry) streams with limited aquatic life potential.

Open Water Habitat

The boundaries of open water systems (deepwater aquatic habitats, such as ponds and lakes) are delineated either using recent aerial photography or by flagging boundaries in the field and locating them using a GPS unit. Based on the 1987 Wetland Delineation Manual (Environmental Laboratory, 1987), deepwater aquatic habitats are areas that are permanently inundated at mean annual water depths >6.6 ft or permanently inundated areas <6.6 ft in depth that do not support rooted-emergent or woody plant species.

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