

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): February 10, 2022

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: LRP-2021-369 Villwock 5 LLC - Parcel 26-612600

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: Ohio County/parish/borough: Trumbull City: Howland Township

Center coordinates of site (lat/long in degree decimal format): Lat. 41.21195° N, Long. 80.72333° W.

Universal Transverse Mercator: 17 523210.469193 X, 4562317.354209 Y

Name of nearest waterbody: Mosquito Creek

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Mahoning River Name of watershed or

Hydrologic Unit Code (HUC): 05030103 Mahoning

☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☒ Office (Desk) Determination. Date: December 27, 2021

☒ Field Determination. Date(s): September 14, 2021

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

☐ Waters subject to the ebb and flow of the tide.

☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **are and are not** "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply):¹

- ☐ TNWs, including territorial seas
- ☐ Wetlands adjacent to TNWs
- ☐ Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs
- ☒ Non-RPWs that flow directly or indirectly into TNWs
- ☒ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
- ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
- ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
- ☐ Impoundments of jurisdictional waters
- ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify (estimate) size of waters of the U.S. in the review area:

Non-wetland waters: 384 linear feet: 2-4 width (ft) and/or 0.026 acres.

Wetlands: 4.197 acres.

c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual

Elevation of established OHWM (if known): n/a.

2. Non-regulated waters/wetlands (check if applicable):³

- ☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
Explain: **Wetlands W003, W007, W009, W100, and W102 do not display a direct surface connection, and the information available does not suggest a shallow subsurface connection, to other aquatic resources either up-or downstream. There is no information available to show that any of these aquatic resources 1) are or could be used in interstate commerce; , 2) produce fish or shellfish which are or could be taken and sold in interstate or foreign**

¹ Boxes checked below shall be supported by completing the appropriate sections in Section III below.

² For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

³ Supporting documentation is presented in Section III.F.

commerce, or 3) are or could be used for industrial purposes by industries in interstate commerce. Wetlands W003, W007, W009, W100, and W102 are therefore not jurisdictional.

Wetland W101 flows into Wetland W008 via a vegetated ditch (DF-2), and outlets to a stormwater culvert and catch basin along Stillwagon Road, which then flows into the municipal storm sewer system. DF-2 is a vegetated upland ditch that connects Wetlands W101 and W008, and exhibited discontinuous bed, bank, and ordinary high water mark. There is no information available to show that any of these aquatic resources 1) are or could be used in interstate commerce; 2) produce fish or shellfish which are or could be taken and sold in interstate or foreign commerce, or 3) are or could be used for industrial purposes by industries in interstate commerce. Wetlands W101 and W008 and DF-2 are therefore not jurisdictional.

DF-5 and DF-6 are either compacted depressions due to vehicle travel, or were intentionally graded approximately 6 inches deep; these features exhibit discontinuous bed, bank, and ordinary high water mark and gradually dissipate in uplands west of the project area. There is no information available to show that either of these aquatic resources 1) are or could be used in interstate commerce; 2) produce fish or shellfish which are or could be taken and sold in interstate or foreign commerce, or 3) are or could be used for industrial purposes by industries in interstate commerce. DF-5 and DF-6 are therefore not jurisdictional.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW

Identify TNW: .

Summarize rationale supporting determination: .

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is “adjacent”: .

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are “relatively permanent waters” (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:

Watershed size: ephemeral stream DF-1 drains approximately 7 acres onsite **acres**

Drainage area: Unnamed tributary to Mosquito Creek total drainage area is <1 **square miles**

Average annual rainfall: 40 inches

Average annual snowfall: 31 inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

☐ Tributary flows directly into TNW.

☒ Tributary flows through **2** tributaries before entering TNW.

Project waters are **5-10** river miles from TNW.

Project waters are **1 (or less)** river miles from RPW.

Project waters are **2-5** aerial (straight) miles from TNW.

Project waters are **1 (or less)** aerial (straight) miles from RPW.

Project waters cross or serve as state boundaries. Explain: .

Identify flow route to TNW⁵: DF-1 originates on the site from concentrated runoff from flooding events in Wetland W010. DF-1 is an ephemeral channel that that continues offsite into a rock-lined ditch and East Point Drive SE through

⁴ Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

⁵ Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

intermittent streams for approximately 1.8 miles to an eventual confluence with Mosquito Creek. Mosquito Creek flows south for another 3 miles to its confluence with the Mahoning River, a TNW.

Tributary stream order, if known: 1st.

(b) General Tributary Characteristics (check all that apply):

Tributary is: ☐ Natural
☐ Artificial (man-made). Explain: .
☒ Manipulated (man-altered). Explain: Rock-lined ditch, then culverted at road crossing.

Tributary properties with respect to top of bank (estimate):

Average width: 3 feet

Average depth: 0.5 feet

Average side slopes: **4:1 (or greater)**.

Primary tributary substrate composition (check all that apply):

<input type="checkbox"/> Silts	<input type="checkbox"/> Sands	<input type="checkbox"/> Concrete
<input type="checkbox"/> Cobbles	<input type="checkbox"/> Gravel	<input checked="" type="checkbox"/> Muck
<input type="checkbox"/> Bedrock	<input checked="" type="checkbox"/> Vegetation. Type/% cover: 10%	
<input type="checkbox"/> Other. Explain: .		

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: Channel is shallow linear swale that appears stable.

Presence of run/riffle/pool complexes. Explain: none apparent.

Tributary geometry: **Relatively straight**

Tributary gradient (approximate average slope): 1 %

(c) Flow:

Tributary provides for: **Ephemeral flow**

Estimate average number of flow events in review area/year: **6-10**

Describe flow regime: Runoff perched atop clay soils concentrates into shallow swale with 1-2% slope.

Other information on duration and volume: Evidence of periodic concentrated flow was observed including sediment and woody debris / wrack deposits and scoured paths through leaf litter.

Surface flow is: **Overland sheetflow**. Characteristics: .

Subsurface flow: **Unknown**. Explain findings: .

☐ Dye (or other) test performed: .

Tributary has (check all that apply):

<input checked="" type="checkbox"/> Bed and banks	
<input checked="" type="checkbox"/> OHWM ⁶ (check all indicators that apply):	
<input type="checkbox"/> clear, natural line impressed on the bank	<input checked="" type="checkbox"/> the presence of litter and debris
<input type="checkbox"/> changes in the character of soil	<input type="checkbox"/> destruction of terrestrial vegetation
<input type="checkbox"/> shelving	<input type="checkbox"/> the presence of wrack line
<input checked="" type="checkbox"/> vegetation matted down, bent, or absent	<input type="checkbox"/> sediment sorting
<input checked="" type="checkbox"/> leaf litter disturbed or washed away	<input type="checkbox"/> scour
<input type="checkbox"/> sediment deposition	<input type="checkbox"/> multiple observed or predicted flow events
<input type="checkbox"/> water staining	<input type="checkbox"/> abrupt change in plant community
<input type="checkbox"/> other (list):	
<input type="checkbox"/> Discontinuous OHWM. ⁷ Explain: .	

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

<input type="checkbox"/> High Tide Line indicated by:	<input type="checkbox"/> Mean High Water Mark indicated by:
<input type="checkbox"/> oil or scum line along shore objects	<input type="checkbox"/> survey to available datum;
<input type="checkbox"/> fine shell or debris deposits (foreshore)	<input type="checkbox"/> physical markings;
<input type="checkbox"/> physical markings/characteristics	<input type="checkbox"/> vegetation lines/changes in vegetation types.
<input type="checkbox"/> tidal gauges	
<input type="checkbox"/> other (list):	

(iii) **Chemical Characteristics:**

⁶A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

⁷Ibid.

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain: Channel is dry, portions of stream bed are moist.

Identify specific pollutants, if known: .

(iv) **Biological Characteristics. Channel supports (check all that apply):**

- ☐ Riparian corridor. Characteristics (type, average width): .
- ☒ Wetland fringe. Characteristics: abuts Wetland W010.
- ☐ Habitat for:
 - ☐ Federally Listed species. Explain findings: .
 - ☐ Fish/spawn areas. Explain findings: .
 - ☐ Other environmentally-sensitive species. Explain findings: .
 - ☐ Aquatic/wildlife diversity. Explain findings: .

2. **Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW**

(i) **Physical Characteristics:**

(a) General Wetland Characteristics:

Properties:

Wetland size: delineated onsite Wetlands W010 and W011 total 4.197 (estimated total size 16) acres

Wetland type. Explain: palustrine forested (PFO) woodland and palustrine emergent (PEM) edge.

Wetland quality. Explain: ORAM Category 2.

Project wetlands cross or serve as state boundaries. Explain: no.

(b) General Flow Relationship with Non-TNW:

Flow is: **Ephemeral flow**. Explain: Wetlands W010 and W011 are part of a depressional area that derives its hydrology from direct precipitation in shallow depressions perching water atop aquitard clay soils on flat land. When significant precipitation occurs, Wetlands W010 and W011 overflow into DF-1 and flow continues down the watercourse. Flow is not associated with the groundwater table that is 10-20 feet below ground in the vicinity, based on available groundwater well records maintained by the consultant.

Surface flow is: **Discrete and confined**

Characteristics: Wetlands W010 and W011 directly abut DF-1, which is an ephemeral channel averaging 2 to 4 feet wide that receives runoff from Wetlands W010 and W011 and their surrounding upland areas, and continues into a rock-lined ditch and then into an intermittent stream across East Point Drive SE. Evidence of periodic concentrated flow was observed including sediment and woody debris / wrack deposits and scoured paths through leaf litter. DF-1 extends for approximately 200 linear feet to a culvert under East Point Road, where an intermittent flow regime begins. From East Point Road, DF-1 is approximately 1.8 miles upstream from its confluence with Mosquito Creek, which flows approximately 3 miles to its confluence with the Mahoning River, a TNW.

Subsurface flow: **Unknown**. Explain findings: Subsurface flow from Wetland W010 to DF-1 is suspected due to the positioning of the stream channel and its surrounding wetland, but this was not confirmed.

☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

- ☒ Directly abutting
- ☐ Not directly abutting
 - ☐ Discrete wetland hydrologic connection. Explain: .
 - ☐ Ecological connection. Explain: .
 - ☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **5-10** river miles from TNW.

Project waters are **2-5** aerial (straight) miles from TNW.

Flow is from: **Wetland to navigable waters**.

Estimate approximate location of wetland as within the **500-year or greater** floodplain.

(ii) **Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: During the site visit, water was clear, with some areas where leaf litter had accumulated; water was faintly brown in these areas. Overall water quality is good, and .

Identify specific pollutants, if known: .

(iii) **Biological Characteristics. Wetland supports (check all that apply):**

- ☒ Riparian buffer. Characteristics (type, average width): ~200 foot woodlands at headwater origin of ephemeral streams.
- ☒ Vegetation type/percent cover. Explain: deciduous woodland / 80% cover.
- ☐ Habitat for:
 - ☐ Federally Listed species. Explain findings: .
 - ☐ Fish/spawn areas. Explain findings: .
 - ☐ Other environmentally-sensitive species. Explain findings: .
 - ☐ Aquatic/wildlife diversity. Explain findings: .

3. Characteristics of all wetlands adjacent to the tributary (if any)

All wetland(s) being considered in the cumulative analysis: **2**

Approximately (4.197) acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>	<u>Directly abuts? (Y/N)</u>	<u>Size (in acres)</u>
Wetland W010	3.935	Y	
Wetland W011	0.262	Y	

Summarize overall biological, chemical and physical functions being performed: The primary functions provided by these wetlands is organic food matter production for downstream waters foodwebs and interception of precipitation to attenuate downstream peak flows. Detention capacity is limited due to dense clay soils.

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: n/a.
2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: Ephemeral channel DF-1 and Wetlands W010/W011 are located at the origin of an unnamed tributaries to Mosquito Creek 1.8 miles from the confluence of Mosquito Creek and 5 miles from confluence with Mahoning River. DF-1 is a non-RPW that flows indirectly into a TNW. Wetlands W010 & W011 are part of a larger approximately 16-acre wetland area at the interfluvium between Mosquito Creek and Squaw Creek. The compacted clay soils in the wetland are an aquitard and do not appear to retain significant groundwater or runoff for flood water retention or pollutant removal/trapping. However, based on the forested wetland size and ephemeral channel connections to Mosquito Creek, the stream and wetland have the capacity to provide lifecycle support functions for aquatic organisms and to transfer nutrients and organic carbon to support downstream foodwebs. Therefore this stream and wetlands have more than a speculative or insubstantial effect on the chemical, physical, or biological integrity of the TNW, and are jurisdictional..
3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:
☐ TNWs: linear feet width (ft), Or, acres.
☐ Wetlands adjacent to TNWs: acres.

2. RPWs that flow directly or indirectly into TNWs.

- ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: .
- ☐ Tributaries of TNW where tributaries have continuous flow “seasonally” (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: .

Provide estimates for jurisdictional waters in the review area (check all that apply):

- ☐ Tributary waters: linear feet width (ft).
- ☐ Other non-wetland waters: acres.
- Identify type(s) of waters: .

3. Non-RPWs⁸ that flow directly or indirectly into TNWs.

- ☒ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):

- ☒ Tributary waters: **384** linear feet **3** width (ft).
- ☐ Other non-wetland waters: acres.
- Identify type(s) of waters: .

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.

- ☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
- ☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .
- ☐ Wetlands directly abutting an RPW where tributaries typically flow “seasonally.” Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.

- ☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.

- ☒ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: **4.197** acres.

7. Impoundments of jurisdictional waters.⁹

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.

- ☐ Demonstrate that impoundment was created from “waters of the U.S.,” or
- ☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
- ☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

⁸See Footnote # 3.

⁹ To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):¹⁰

- ☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
- ☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
- ☐ which are or could be used for industrial purposes by industries in interstate commerce.
- ☐ Interstate isolated waters. Explain: .
- ☐ Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

Provide estimates for jurisdictional waters in the review area (check all that apply):

- ☐ Tributary waters: linear feet width (ft).
- ☐ Other non-wetland waters: acres.
- Identify type(s) of waters: .
- ☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

- ☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- ☒ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
 - ☒ Prior to the Jan 2001 Supreme Court decision in “*SWANCC*,” the review area would have been regulated based solely on the “Migratory Bird Rule” (MBR).
- ☐ Waters do not meet the “Significant Nexus” standard, where such a finding is required for jurisdiction. Explain: .
- ☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☒ Wetlands: Wetland W003 (0.505 acre), W007 (0.723 acre), W008 (0.031 acre), W009 (0.336 acre), W100 (0.326 acre), W101 (0.280 acre), and W102 (0.831 acre) total 3.032 acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the “Significant Nexus” standard, where such a finding is required for jurisdiction (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☒ Wetlands: 0.505 acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

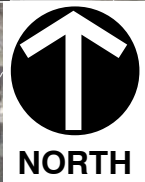
- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: CEC Waters Delineation Report, September 2021.
- ☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
 - ☒ Office concurs with data sheets/delineation report.
 - ☐ Office does not concur with data sheets/delineation report.
- ☐ Data sheets prepared by the Corps: .
- ☐ Corps navigable waters’ study: .
- ☒ U.S. Geological Survey Hydrologic Atlas: DF-1 is mapped as the origin of an NHD stream.
 - ☒ USGS NHD data.
 - ☒ USGS 8 and 12 digit HUC maps.
- ☒ U.S. Geological Survey map(s). Cite scale & quad name: 7.5 minute Girard, OH quadrangle.
- ☒ USDA Natural Resources Conservation Service Soil Survey. Citation: Trumbull County Soil Survey and USDA-NRCS Web Soil Survey data (refer to sections 3.1.3 and Figure 2 of CEC report).

¹⁰ Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

- ☒ National wetlands inventory map(s). Cite name:USFWS NWI maps dated 2020 (refer to CEC report Section 3.1.2 and Figure 2).
- ☐ State/Local wetland inventory map(s): .
- ☐ FEMA/FIRM maps: no flood hazard zones mapped .
- ☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
- ☒ Photographs: ☒ Aerial (Name & Date): aerial imagery Ohio OSIP 2006, GoogleEarth 2019.
or ☒ Other (Name & Date):wetland and stream photographs in Appendix A and C of CEC Waters Delienation Report.
- ☐ Previous determination(s). File no. and date of response letter: .
- ☒ Applicable/supporting case law: Rapanos v. US; Carabell v. US.
- ☐ Applicable/supporting scientific literature: .
- ☐ Other information (please specify): .

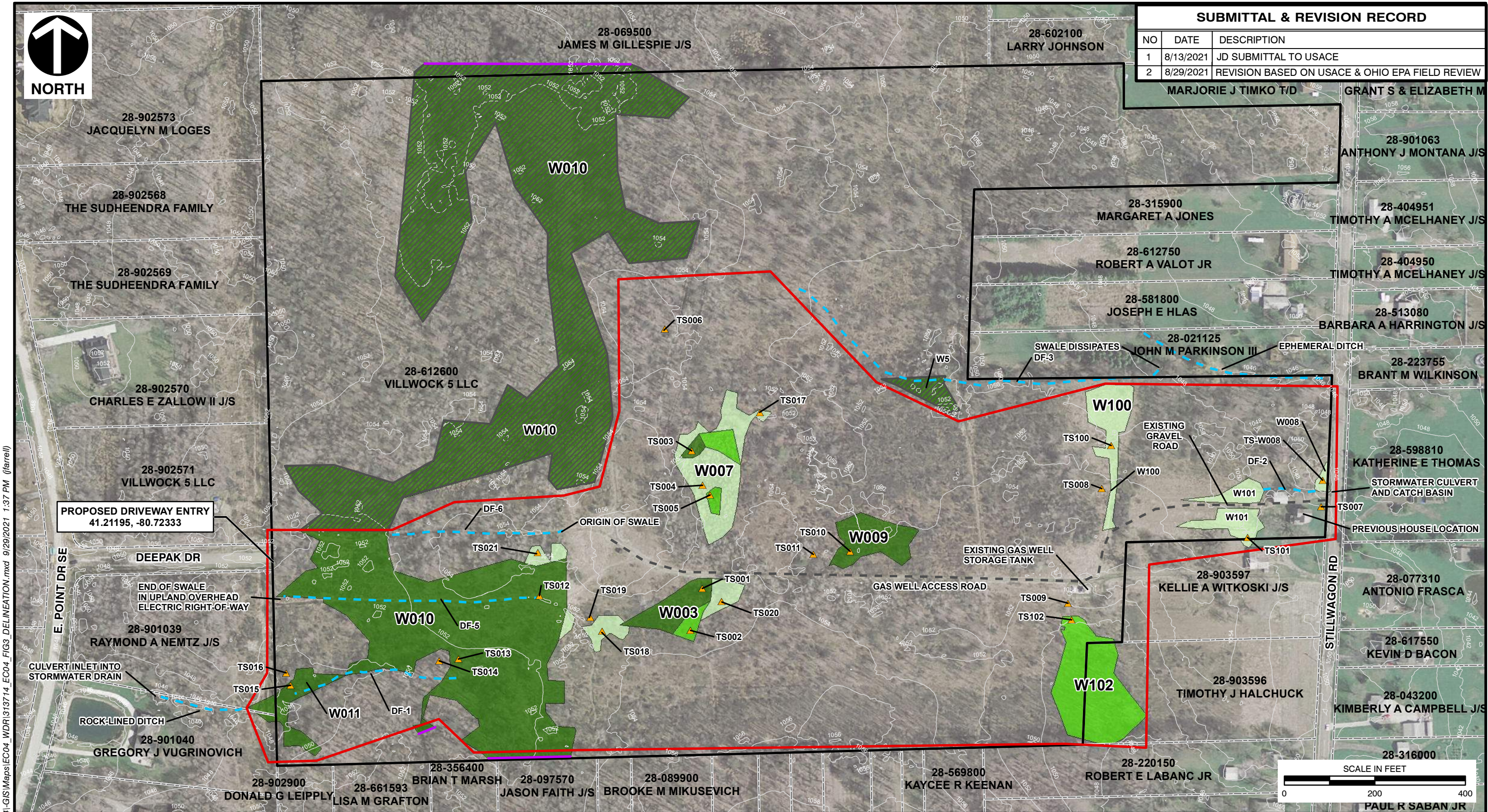
B. ADDITIONAL COMMENTS TO SUPPORT JD:

The delineated boundary of Wetland W003 was expanded westward through a recently disturbed area following a regulatory site visit in September 2021, as documented by data forms TS018 and TS019; as a result, the gap between Wetlands W003 and W010 was reduced to 19 feet. However, this data was taken after several months of above-average precipitation (June-July 125% and August 300%) according to the National Oceanic & Atmospheric Administration (NOAA) National Weather Service, so the wetland boundaries documented by CEC are possibly larger than normal. Wetland W003 is separated from Wetland W010 by a 19 foot gap and is adjacent but not abutting the origin of a non-RPW ephemeral stream (DF-1). Wetland W003 is therefore not "similarly situated," and therefore was not included in the Wetland W010/W011 cumulative SND analysis as adjacent to a non-RPW to a TNW. Wetland W003 does not intercept or detain runoff into any defined channels or drainageways with direct connections to the Mahoning River (TNW), does not contain groundwater to sustain flow to an RPW, and does not appear to have a significant effect on water quality in Mosquito Creek or Mahoning River. In comparison, Wetland W010 is a large forested complex that abuts a non-RPW ephemeral tributary to Mosquito Creek and could intercept runoff into a municipal storm sewer system along East Point Dr.



SUBMITTAL & REVISION RECORD

NO	DATE	DESCRIPTION
1	8/13/2021	JD SUBMITTAL TO USACE
2	8/29/2021	REVISION BASED ON USACE & OHIO EPA FIELD REVIEW



LEGEND

- TEST SITE
- CEC WETLAND (PEM)
- CEC WETLAND (PSS)
- CEC WETLAND (PFO)
- OPEN-ENDED WETLAND BOUNDARY
- WETLAND (DELINEATED BY OTHERS)
- POTENTIAL CHANNELS / SWALES / DITCHES
- WATERS REVIEW AREA
- PROPERTY BOUNDARY
- APPROXIMATE PARCEL BOUNDARY
- 2-FOOT CONTOUR

REFERENCE

- Trumbull, OH 2007 OSIP Aerial Imagery
- Contours derived from the Ohio Statewide Imagery Program (OSIP) 2.5 foot DEM in ArcInfo GRID format, 2006-2008.
- Trumbull County Parcel Boundaries, July 2021.



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DRAWN BY: JLR/CLC

DATE: 9/29/2021

CHECKED BY: JLS/MMW

SCALE: 1" = 200'

APPROVED BY:

PROJECT NO: 313-714

* Hand signature on file

JRF

FIGURE NO:

3

VILLWOCK 5, LLC
PARCEL 26-612600 DEVELOPMENT
HOWLAND TOWNSHIP
TRUMBULL COUNTY, OHIO

WATERS DELINEATION MAP



NORTH

