U.S. ARMY CORPS OF ENGINEERS
REGULATORY PROGRAM
APPROVED JURISDICTIONAL DETERMINATION FORM (INTERIM)
NAVIGABLE WATERS PROTECTION RULE

I. ADMINISTRATIVE INFORMATION

Completion Date of Approved Jurisdictional Determination (AJD): 2/12/2021
ORM Number: LRB-2020-00740
Associated JDs: N/A
Review Area Location[1]: State/Territory: OH City: Chardon County/Parish/Borough: Geauga
Center Coordinates of Review Area: Latitude 41.5936 Longitude -81.2208

II. FINDINGS

A. Summary: Check all that apply. At least one box from the following list MUST be selected. Complete the corresponding sections/tables and summarize data sources.

- ☐ The review area is comprised entirely of dry land (i.e., there are no waters or water features, including wetlands, of any kind in the entire review area). Rationale: N/A or describe rationale.
- ☐ There are "navigable waters of the United States" within Rivers and Harbors Act jurisdiction within the review area (complete table in Section II.B).
- ☒ There are "waters of the United States" within Clean Water Act jurisdiction within the review area (complete appropriate tables in Section II.C).
- ☒ There are waters or water features excluded from Clean Water Act jurisdiction within the review area (complete table in Section II.D).

B. Rivers and Harbors Act of 1899 Section 10 (§ 10)[2]

§ 10 Name	§ 10 Size		§ 10 Criteria	Rationale for § 10 Determination
N/A.	N/A.	N/A	N/A.	N/A.

C. Clean Water Act Section 404

Territorial Seas and Traditional Navigable Waters ((a)(1) waters):[3]				
(a)(1) Name	(a)(1) Size		(a)(1) Criteria	Rationale for (a)(1) Determination
N/A.	N/A.	N/A.	N/A.	N/A.

Tributaries ((a)(2) waters):				
(a)(2) Name	(a)(2) Size		(a)(2) Criteria	Rationale for (a)(2) Determination
Stream 2	528	linear feet	(a)(2) Intermittent tributary contributes surface water flow directly or indirectly to an (a)(1) water in a	Waters on-site flow off-site to Big Creek, which flows to the Grand River. Big Creek and Grand River are identified on U.S.G.S. topographic as (a)(2) Perennial tributaries that contribute surface water flow directly or indirectly to an (a)(1) water, which is Lake Erie, in a typical year. Lake Erie is identified as navigable waterway in the Buffalo District. Stream 2 enters the property from the west and has well defined bed and bank, an ordinary high-water mark and sediment sorting. Pools and riffles were observed in the stream channel. Stream 2 originates outside of the delineation area at a culvert and wetland complex that flows into the delineation area. A review of aerial

[1] Map(s)/figure(s) are attached to the AJD provided to the requestor.
[2] If the navigable water is not subject to the ebb and flow of the tide or included on the District's list of Rivers and Harbors Act Section 10 navigable waters list, do NOT use this document to make the determination. The District must continue to follow the procedure outlined in 33 CFR part 329.14 to make a Rivers and Harbors Act Section 10 navigability determination.
[3] A stand-alone TNW determination is completed independently of a request for an AJD. A stand-alone TNW determination is conducted for a specific segment of river or stream or other type of waterbody, such as a lake, where upstream or downstream limits or lake borders are established. A stand-alone TNW determination should be completed following applicable guidance and should NOT be documented on the AJD Form.

Tributaries ((a)(2) waters):				
(a)(2) Name	(a)(2) Size		(a)(2) Criteria	Rationale for (a)(2) Determination
			typical year.	imagery shows that an upstream, offsite wetland provides a source of water to Stream 2. Photos taken on the day of the delineation, 4/8/2020 show water in the stream channel. On the day of the Corps site visit, 8/25/2020, only pools of water were observed in the stream channel. A review of aerial imagery ConnectExplore 4/2/2018, 2/4/2013, 4/8/2013, 4/5/2010 and Geauga County GIS 2017, 2013, 2010, 2008 consistenly shows water flowing in the upstream segment of Stream 2. A typical year's assessment was performed and an Antecedent Precipitation Condition (APC) calculation was completed for the dates noted above. The date of the site visit was conducted in the dry season during normal precipitation conditions. The remainder of the dates assessed fell within the wet season during normal or wetter than normal preciptation conditions. This indicates that the stream flow observed on the dates considered for this analysis would be typical for the upper segment of Stream 2. See Section III.B for a discussion of the results of the typical year's assessment. Based upon a review of available information, it has been determined that the upper segment of Stream 2 within the delineation area has intermittent flow and is an (a)(2) intermittent tributary that contributes surface water directly or indirectly to an (a)(1) water in a typical year.
Stream 2	634	linear feet	(a)(2) Perennial tributary contributes surface water flow directly or indirectly to an (a)(1) water in a typical year.	Waters on-site flow off-site to Big Creek, which flows to the Grand River. Big Creek and Grand River are identified on U.S.G.S. topographic as (a)(2) Perennial tributaries that contribute surface water flow directly or indirectly to an (a)(1) water, which is Lake Erie, in a typical year. Lake Erie is identified as navigable waterway in the Buffalo District. The lower portion of Stream 2 has a well-defined bed and bank, an ordinary high-water mark and sediment sorting. Pools and riffles were observed in the stream channel. The flow of water in Stream 2 increases where it flows into Wetland C. Photos taken on the day of the delineation 4/8/2020 show water in the stream channel. On the day of the Corps site visit, 8/25/2020, water was observed flowing in the stream channel. A review of aerial imagery from ConnectExplore 4/2/2018, 2/4/2013, 4/8/2013, 4/5/2010 and Geauga County GIS 2017, 2013, 2010, 2008 show that water is consistently flowing in this segment of the stream channel. A typical year's assessment was performed, and an Antecedent Precipitation Condition (APC) calculation was completed for the dates noted above. The date of the site visit was conducted in the dry season during normal precipitation conditions. The remainder of the dates assessed fell within the wet season during normal or wetter than normal precipitation conditions. This indicates that the stream flow observed on the dates considered for this analysis would be typical for the lower portion of Stream 2. See Section III.B for a discussion of the results of the typical years assessment. Based upon a review of available information, it has been determined that the lower segment of Stream 2 has perennial flow within the delineation

Tributaries ((a)(2) waters):				
(a)(2) Name	(a)(2) Size		(a)(2) Criteria	Rationale for (a)(2) Determination
				area and is an (a)(2) perennial tributary that contributes surface water directly or indirectly to an (a)(1) water in a typical year.
Stream 3	195	linear feet	(a)(2) Perennial tributary contributes surface water flow directly or indirectly to an (a)(1) water in a typical year.	Waters on-site flow off-site to Big Creek, which flows to the Grand River. Big Creek and Grand River are identified on U.S.G.S. topographic as (a)(2) Perennial tributaries that contribute surface water flow directly or indirectly to an (a)(1) water, which is Lake Erie, in a typical year. Lake Erie is identified as navigable waterway in the Buffalo District. Stream 3 has a well-defined bed and bank, an ordinary high-water mark and sediment sorting. Pools and riffles were observed in the stream channel. Stream 3 originates off-site to the west of the delineation area at a large wetland complex. Photos taken on the day of the delineation, 4/8/2020 shows water in the stream channel. On the day of the Corps site visit, 8/25/2020, water was observed flowing in the stream channel. A review of aerial imagery ConnectExplore 4/2/2018, 2/4/2013, 4/8/2013, 4/5/2010 and Geauga County GIS 2017, 2013, 2010, 2008 show that water is consistently flowing in this segment of the stream channel. A typical year's assessment was performed, and an Antecedent Precipitation Condition (APC) calculation was completed for the dates noted above. The date of the site visit was conducted in the dry season during normal precipitation conditions. The remainder of the dates assessed fell within the wet season during normal or wetter than normal precipitation conditions. This indicates that the stream flow observed on the date of the site visit would be typical for lower segment of perennial Stream 3. See Section III.B for a discussion of the results of the typical years assessment. Based upon a review of available information, it has been determined that Stream 3 within the delineation area has perennial flow and is an (a)(2) perennial tributary that contributes surface water directly or indirectly to an (a)(1) water in a typical year.
Stream 4	777	linear feet	(a)(2) Intermittent tributary contributes surface water flow directly or indirectly to an (a)(1) water in a typical year.	Waters on-site flow off-site to Big Creek, which flows to the Grand River. Big Creek and Grand River are identified on U.S.G.S. topographic as (a)(2) Perennial tributaries that contribute surface water flow directly or indirectly to an (a)(1) water, which is Lake Erie, in a typical year. Lake Erie is identified as navigable waterway in the Buffalo District. Stream 4 has a well defined bed and bank, an ordinary high water mark and sediment sorting. Pool and riffle development was observed in the stream channel. Stream 4 orginates at Wetland D which is 2.55 acres. Wetland D directly abuts Stream 4. Photos taken on the day of the delineation, 4/8/2020 show water in the stream channel. On the day of the Corps site visit, 8/25/2020, a moist stream channel was observed. A review of aerial imagery ConnectExplore 4/2/2018, 2/4/2013, 4/8/2013, 4/5/2010 and Geauga County GIS 2017, 2013, 2010, 2008 show consitent water in this segment of the stream channel. A review of multiple aerial images also show inundation and saturation in Wetland D and that Wetland D provides water to Stream 4 for more

Tributaries ((a)(2) waters):				
(a)(2) Name	(a)(2) Size		(a)(2) Criteria	Rationale for (a)(2) Determination
				than a response to precipitation events in a typical year. A typical year's assessment was performed and an Antecedent Precipitation Condition (APC) calculation was completed for the dates noted above. The date of the site visit was conducted in the dry season during normal precipitation conditions. The remainder of the dates assessed fell within the wet season during normal or wetter than normal preciptation conditions. This indicates that the stream flow observed on the dates considered for this analysis would be typical for Stream 4. See Section III.B for a discussion of the results of the typical year's assessment. Based upon a review of available information, it has been determined that Stream 4 has intermittent flow and is an (a)(2) intermittent tributary that contributes surface water directly or indirectly to an (a)(1) water in a typical year.
Stream 5	161	linear feet	(a)(2) Intermittent tributary contributes surface water flow directly or indirectly to an (a)(1) water in a typical year.	Waters on-site flow off-site to Big Creek, which flows to the Grand River. Big Creek and Grand River are identified on U.S.G.S. topographic as (a)(2) Perennial tributaries that contribute surface water flow directly or indirectly to an (a)(1) water, which is Lake Erie, in a typical year. Lake Erie is identified as navigable waterway in the Buffalo District. Stream 5 has a well-defined bed and bank, an ordinary high-water mark and sediment sorting. Pool and riffle development were observed in the stream channel. Stream 5 originates off-site at a large wetland complex just outside of the delineation area. This wetland contributes water to Stream 5 for more than a response to precipitation events in a typical year. An improved paved bike trail was constructed between 2014 and 2015 (Google Earth Pro) through the wetland. ConnectExplore (4/02/2018) shows two areas where water flows from the off-site wetland under the paved bike path through culverts into Stream 5. Photos taken on the day of the delineation, 4/8/2020 shows water in the stream channel. On the day of the Corps site visit, 8/25/2020, a moist stream channel was observed. A review of aerial imagery ConnectExplore 4/2/2018, 2/4/2013, 4/8/2013, 4/5/2010 and Geauga County GIS 2017, 2013, 2010, 2008 show water in this segment of the stream channel. A typical year's assessment was performed, and an Antecedent Precipitation Condition (APC) calculation was completed for the dates noted above. The date of the site visit was conducted in the dry season during normal precipitation conditions. The remainder of the dates assessed fell within the wet season during normal or wetter than normal precipitation conditions. This indicates that the stream flow observed on the dates considered for this analysis would be typical for Stream 5. See Section III.B for a discussion of the results of the typical years assessment. Based upon a review of available information, it has been determined that Stream 5 within the delineation area has intermittent flow and is an (a)(2) intermittent tributary that contributes surface water directly or indirectly to an (a)(1) water in a typical year.

Tributaries ((a)(2) waters):				
(a)(2) Name	(a)(2) Size		(a)(2) Criteria	Rationale for (a)(2) Determination
Stream 6	340	linear feet	(a)(2) Perennial tributary contributes surface water flow directly or indirectly to an (a)(1) water in a typical year.	Waters on-site flow off-site to Big Creek, which flows to the Grand River. Big Creek and Grand River are identified on U.S.G.S. topographic as (a)(2) Perennial tributaries that contribute surface water flow directly or indirectly to an (a)(1) water, which is Lake Erie, in a typical year. Lake Erie is identified as navigable waterway in the Buffalo District. Stream 6 has a well defined bed and bank, an ordinary high-water mark and sediment sorting. Pools and riffles were observed in the stream channel. Stream 6 originates off-site to the west at a large wetland complex and is a downstream segment of Stream 3. Photos taken on the day of the delineation, 4/8/2020 shows water in the stream channel. On the day of the Corps site visit, 8/25/2020, water was observed flowing in the stream channel. A review of aerial imagery ConnectExplore 4/2/2018, 2/4/2013, 4/8/2013, 4/5/2010 and Geauga County GIS 2017, 2013, 2010, 2008 show water in this segment of the stream channel. A typical year's assessment was performed, and an Antecedent Precipitation Condition (APC) calculation was completed for the dates noted above. The date of the site visit was conducted in the dry season during normal precipitation conditions. The remainder of the dates assessed fell within the wet season during normal or wetter than normal precipitation conditions. This indicates that the stream flow observed on the dates considered for this analysis would be typical for Stream 6. See Section III.B for a discussion of the results of the typical years assessment. Based upon a review of available information, it has been determined that Stream 6 within the delineation area has perennial flow and is an (a)(2) perennial tributary that contributes surface water directly or indirectly to an (a)(1) water in a typical year.
Stream 8	812	linear feet	(a)(2) Perennial tributary contributes surface water flow directly or indirectly to an (a)(1) water in a typical year.	Waters on-site flow off-site to Big Creek, which flows to the Grand River. Big Creek and Grand River are identified on U.S.G.S. topographic as (a)(2) Perennial tributaries that contribute surface water flow directly or indirectly to an (a)(1) water, which is Lake Erie, in a typical year. Lake Erie is identified as navigable waterway in the Buffalo District. Stream 8 has a well defined bed and bank, an ordinary high-water mark, and sediment sorting. Pools and riffles were observed in the stream channel. Stream 8 originates off-site and is depicted as perennial stream on USGS topographic maps. Photographs taken on the day of the delineation, 4/8/2020 shows water in the stream channel. During the date of the Corps site visit on 8/25/2020, Stream 8 had water flow and fishes were observed swimming in the deeper pools. A review of aerial imagery ConnectExplore 4/2/2018, 2/4/2013, 4/8/2013, 4/5/2010 and Geauga County GIS 2017, 2013, 2010, 2008 show that water in this segment of the stream channel. A typical year's assessment was performed, and an Antecedent Precipitation Condition (APC) calculation was completed for the dates noted above. The date of the site visit was conducted in the dry season during normal

Tributaries ((a)(2) waters):				
(a)(2) Name	(a)(2) Size		(a)(2) Criteria	Rationale for (a)(2) Determination
				precipitation conditions. The remainder of the dates assessed fell within the wet season during normal or wetter than normal precipitation conditions This indicates that the stream flow observed on the dates considered for this analysis would be typical for Stream 8. See Section III.B for a discussion of the results of the typical years assessment. Based upon a review of available information, it has been determined that Stream 8 has perennial flow and is an (a)(2) perennial tributary that contributes surface water directly or indirectly to an (a)(1) water in a typical year.

Lakes and ponds, and impoundments of jurisdictional waters ((a)(3) waters):				
(a)(3) Name	(a)(3) Size		(a)(3) Criteria	Rationale for (a)(3) Determination
Open Water 1	0.81	acre(s)	(a)(3) Lake/pond or impoundment of a jurisdictional water contributes surface water flow directly or indirectly to an (a)(1) water in a typical year.	Waters on-site flow off-site to Big Creek, which flows to the Grand River. Big Creek and Grand River are identified on U.S.G.S. topographic as (a)(2) Perennial tributaries that contribute surface water flow directly or indirectly to an (a)(1) water, which is Lake Erie, in a typical year. Lake Erie is identified as navigable waterway in the Buffalo District. Open Water 1 is an impoundment of the lower portion of Stream 2, which has been determined to be an (a)(2) perennial tributary that contributes surface water directly or indirectly to an (a)(1) water in a typical year. Open Water 1 also receives stormwater from the surrounding commercial properties. Open Water 1 has an outlet under a bike path located on the southeast corner of the delineation area where the tributary then continues to flow an additional 1.22 miles northeast into Big Creek. Based upon an a Corps site visit on 8/25/2020 and a review of multiple aerial imagery sources and USGS topographic mapping, it has been determined that Open Water 1 is an (a)(3) Lake/pond or impoundment of a jurisdictional water that contributes surface water flow directly or indirectly to an (a)(1) water in a typical year. See Section II.C. for the jurisdictional determination rationale for the lower portion of Stream 2.

Adjacent wetlands ((a)(4) waters):				
(a)(4) Name	(a)(4) Size		(a)(4) Criteria	Rationale for (a)(4) Determination
Wetland C	2.02	acre(s)	(a)(4) Wetland abuts an (a)(1)-(a)(3) water.	Wetland C meets the definition of a wetland and it is in the center of the delineation area. During the date of the site visit on August 25, 2020, Wetland C was observed directly abutting the lower portion of Stream 2 an (a)(2) Perennial tributary that contributes surface water flow directly or indirectly to an (a)(1) water in a typical year. Based upon a review of available information, it has been determined that Wetland C is an (a)(4) wetland that abuts an (a)(1) – (a)(3) water. See Section II.C. for the jurisdictional determination rationale for the lower portion of Stream 2.
Wetland D	2.36	acre(s)	(a)(4) Wetland abuts an (a)(1)-(a)(3) water.	Wetland D meets the definition of a wetland and it is located approximately in the center of the delineation area. During the date of the Corps site visit on 8/25/2020, Wetland D was observed directly abutting Stream 4, an (a)(2) Intermittent tributary that contributes surface water flow directly or indirectly to an (a)(1) water in a typical year. Based upon a review of available information, it has been determined that Wetland D is an (a)(4) wetland that abuts an (a)(1) – (a)(3) water. See Section II.C. for the jurisdictional determination rationale for Stream 4.
Wetland F	0.27	acre(s)	(a)(4) Wetland abuts an (a)(1)-(a)(3) water.	Wetland F meets the definition of a wetland and it is located on the western boundary of the delineation area. During the date of the Corps site visit on 8/25/2020, Wetland F was observed directly abutting Stream 3, an (a)(2) Intermittent tributary that contributes surface water flow directly or indirectly to an (a)(1) water in a typical year. Based upon a review of available information, it has been determined that Wetland F is an (a)(4) wetland that abuts an (a)(1) – (a)(3) water. See Section II.C. for the jurisdictional determination rationale for Stream 3.
Wetland H	0.15	acre(s)	(a)(4) Wetland abuts an (a)(1)-(a)(3) water.	Wetland H meets the definition of a wetland and it is located in the northern portion of the delineation area. During the date of the Corps site visit on 8/25/2020, Wetland H was observed directly abutting Stream 4, an (a)(2) Intermittent tributary that contributes surface water flow directly or indirectly to an (a)(1) water in a typical year. Based upon a review of available information, it has been determined that Wetland H is an (a)(4) wetland that abuts an (a)(1) – (a)(3) water. See Section II.C. for the jurisdictional determination rationale for Stream 4.

Adjacent wetlands ((a)(4) waters):				
(a)(4) Name	(a)(4) Size		(a)(4) Criteria	Rationale for (a)(4) Determination
Wetland I	1.14	acre(s)	(a)(4) Wetland abuts an (a)(1)-(a)(3) water.	Wetland I meets the definition of a wetland and it is located in the northern portion of the delineation area. During the date of the Corps site visit on 8/25/2020, Wetland I was observed directly abutting Stream 8, an (a)(2) perennial tributary that contributes surface water flow directly or indirectly to an (a)(1) water in a typical year. Based upon a review of available information, it has been determined that Wetland I is an (a)(4) wetland that abuts an (a)(1) – (a)(3) water. See Section II.C. for the jurisdictional determination rationale for Stream 8.

D. Excluded Waters or Features

Excluded waters ((b)(1) – (b)(12)):[4]				
Exclusion Name	Exclusion Size		Exclusion[5]	Rationale for Exclusion Determination
Wetland A	0.05	acre(s)	(b)(1) Non-adjacent wetland.	Wetland A meets the definition of a wetland and it is located approximately 70 feet to the north of 7th Ave and 700 feet to the south of the upper portion of Stream 2, an (a)(2) Intermittent tributary that contributes surface water flow directly or indirectly to an (a)(1) water in a typical year. During the date of the Corps site visit, 8/25/2020, there was no evidence of wrack lines, sediment deposits or any other indication of flooding from Stream 2, or any other on-site stream, to Wetland A. Based upon a review of Geauga County GIS Aerial Imagery dates for 2017, 2013, 2010 and 2008 and ConnectExplorer 4/2/2018, there was no evidence of inundation from Stream 2, or any other on-site stream, to Wetland A. Wetland A is a depressional wetland that is surrounded by upland and does not abut an (a)(1)-(a)(3) water and Wetland A would not be inundated by flooding from an (a)(1)-(a)(3) water in a typical year. There are no natural or artificial berms located between Wetland A and an (a)(1)-(a)(3) water. Based upon an on-site review, a review of multiple aerial images and the assessment of corresponding Antecedent Precipitation Condition (APC) for each aerial image date, it has been determined that Wetland A meets the

[4] Some excluded waters, such as (b)(2) and (b)(4), may not be specifically identified on the AJD form unless a requestor specifically asks a Corps district to do so. Corps districts may, in case-by-case instances, choose to identify some or all of these waters within the review area.
[5] Because of the broad nature of the (b)(1) exclusion and in an effort to collect data on specific types of waters that would be covered by the (b)(1) exclusion, four sub-categories of (b)(1) exclusions were administratively created for the purposes of the AJD Form. These four sub-categories are not new exclusions, but are simply administrative distinctions and remain (b)(1) exclusions as defined by the NWPR.

Excluded waters ((b)(1) – (b)(12)):[4]				
Exclusion Name	Exclusion Size		Exclusion[5]	Rationale for Exclusion Determination
				Exclusion (b)(1) Non-adjacent wetland. See Section II.C. for the jurisdictional determination rationale for Stream 2. See Section III.B for a discussion of the results of the typical years assessment and APC.
Wetland B	0.06	acre(s)	(b)(1) Non-adjacent wetland.	Wetland B meets the definition of a wetland and it is located approximately 345 feet to the north of 7th Ave., and 518 feet to the south of the upper portion of Stream 2, an (a)(2) Intermittent tributary that contributes surface water flow directly or indirectly to an (a)(1) water in a typical year. During the date of the Corps site visit, 8/25/2020, there was no evidence of wrack lines, sediment deposits or any other indication of flooding from Stream 2 to Wetland B, or any other on-site stream, to Wetland B. Based upon a review of Geauga County GIS Aerial Imagery dates for 2017, 2013, 2010 and 2008 and ConnectExplore 4/2/2018, there was no evidence of inundation from Stream 2 to Wetland B. Wetland B is a depressional wetland that is surrounded by upland and does not abut an (a)(1)-(a)(3) water and Wetland B would not be inundated by flooding from an (a)(1)-(a)(3) water in a typical year. There are no natural or artificial berms located between Wetland B and an (a)(1)-(a)(3) water. Based upon an on-site review, a review of multiple aerial images and the assessment of corresponding Antecedent Precipitation Condition (APC) for each aerial image date, it has been determined that Wetland B meets the Exclusion (b)(1) Non-adjacent wetland. See Section II.C. for the jurisdictional determination rationale for Stream 2. See Section III.B for a discussion of the results of the typical years assessment and APC.
Stream 1	53	linear feet	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool.	Waters on-site flow off-site to Big Creek, which flows to the Grand River. Big Creek and Grand River are identified on U.S.G.S. topographic as (a)(2) Perennial tributaries that contribute surface water flow directly or indirectly to an (a)(1) water, which is Lake Erie, in a typical year. Lake Erie is identified as navigable waterway in the Buffalo District. Stream 1 ephemeral segment orginates on-site and flows off-site towards the northeast and had a shallow channel with a bed and bank, ordinary high water mark and sediment sorting. Pools and

Excluded waters ((b)(1) – (b)(12)):[4]				
Exclusion Name	Exclusion Size		Exclusion[5]	Rationale for Exclusion Determination
				riffles were not present in the stream channel. The shallow channel and a lack of pools and riffles indicate a lack of water flow for a prolonged period of time. Photos taken on the day of the delineation, 4/8/2020, showed water in the stream channel. On the day of the Corps site visit, 8/25/2020, water was not observed flowing in the stream channel. There was no evidence of a spring or seep or any other groundwater contribution to the stream channel. A review of aerial imagery ConnectExplore 4/2/2018, 4/8/2013, 4/18/2008 and Geauga County GIS 2017, 2013, 2010, 2008 show that the upper portion of Stream 1 located in the delineation area lacks consistent water flow. A typical years assessment was performed and an Antecedent Precipitation Condition (APC) calculation was completed for the dates noted above. The date of the site visit was conducted in the dry season during normal precipitation conditions. The remainder of the dates assessed fell within the wet season during normal or wetter than normal preciptation conditions. This indicates that the stream flow observed on the date of the site vist would be typical for Stream 1. See Section III.B for a discussion of the results of the typical years assessment. Based upon a review of available information, it has been determined that the upper portion of Stream 1 within the delineation area has ephemeral flow and is an excluded water feature (b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool.
Stream 7	103	linear feet	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool.	Waters on-site flow off-site to Big Creek, which flows to the Grand River. Big Creek and Grand River are identified on U.S.G.S. topographic as (a)(2) Perennial tributaries that contribute surface water flow directly or indirectly to an (a)(1) water, which is Lake Erie, in a typical year. Lake Erie is identified as navigable waterway in the Buffalo District. Stream 7 ephemeral has a shallow channel with a bed and bank, ordinary high water mark and sediment sorting. Pools and riffles were not present in the stream channel. The shallow channel and a lack of pools and riffles indicate a lack of water flow for a prolonged period of time. Stream 7 ephemeral orginates on-site at Wetland G and drains

Excluded waters ((b)(1) – (b)(12)):[4]				
Exclusion Name	Exclusion Size		Exclusion[5]	Rationale for Exclusion Determination
				towards Stream 8. Photos taken on the day of the delineation, 4/8/2020, showed water in the stream channel. On the day of the Corps site visit, 8/25/2020, water was not observed flowing in the stream channel and the channel was dry. A review of aerial imagery ConnectExplore 4/2/2018, 4/8/2013, 4/18/2008 and Geauga County GIS 2017, 2013, 2010, 2008 show that Stream 7 lacks consistent water flow. A typical years assessment was performed and an Antecedent Precipitation Condition (APC) calculation was completed for the dates noted above. The date of the site visit was conducted in the dry season during normal precipitation conditions. The remainder of the dates assessed fell within the wet season during normal or wetter than normal preciptation conditions. The stream flow observed on the date of the site vist would be typical for Stream 7. See Section III.B for a discussion of the results of the typical years assessment. Based upon a review of available information, it has been determined that Stream 7 has ephemeral flow and is an excluded water feature (b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool.
Stream 9	63	linear feet	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool.	Waters on-site flow off-site to Big Creek, which flows to the Grand River. Big Creek and Grand River are identified on U.S.G.S. topographic as (a)(2) Perennial tributaries that contribute surface water flow directly or indirectly to an (a)(1) water, which is Lake Erie, in a typical year. Lake Erie is identified as navigable waterway in the Buffalo District. Stream 9 ephemeral has a shallow channel with a bed and bank, ordinary high water mark and sediment sorting. Pools and riffles were not present in the stream channel. The shallow stream channel anda lack of pools and riffles indiacte a lack of water flow for a prolonged period of time. Stream 9 ephemeral orginates outside of the delineation area flows into Stream 8. Photos taken on the day of the delineation, 4/8/2020, showed water in the stream channel. On the day of the Corps site visit, 8/25/2020, water was not observed flowing in the stream channel and the chanel was dry. A review of aerial imagery ConnectExplore 4/2/2018, 4/8/2013, 4/18/2008 and Geauga

Excluded waters ((b)(1) – (b)(12)):[4]				
Exclusion Name	Exclusion Size		Exclusion[5]	Rationale for Exclusion Determination
				County GIS 2017, 2013, 2010, 2008 show that Stream 9 lacks consistent water flow. A typical years assessment was performed and an Antecedent Precipitation Condition (APC) calculation was completed for the dates noted above. The date of the site visit was conducted in the dry season during normal precipitation conditions. The remainder of the dates assessed fell within the wet season during normal or wetter than normal preciptation conditions. he stream flow observed on the date of the site vist would be typical for Stream 9. See Section III.B for a discussion of the results of the typical years assessment. It has been determined that Stream 9 has ephemeral flow and is an excluded water feature (b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool.
Wetland E	0.40	acre(s)	(b)(1) Non-adjacent wetland.	Wetland E meets the definition of a wetland and it is located approximately in the center of the delineation area near the western boundary. Wetland E drains to the north into an erosional feature, which flows into Wetland G and then into Stream 7, which was determined to be a (b)(3) ephemeral stream. Wetland E is located approximately 260 feet to the southeast of Stream 6 and 137 feet to the east of Stream 3, which both were determined to be (a)(1)-(a)(3) waters. During the date of the Corps site visit, 8/25/2020, there was no evidence of wrack lines, sediment deposits or any other indication of flooding from Stream 3 or Stream 6 into Wetland E. Based upon a review of Geauga County GIS Aerial Imagery dates for 2017, 2013, 2010 and 2008 and ConnectExplore 4/2/2018, there was no evidence of inundation from Stream 3 or Stream 6 to Wetland E. Wetland E does not abut an (a)(1)-(a)(3) water and Wetland E would not be inundated by flooding from an (a)(1)-(a)(3) water in a typical year. There are no artificial or artificial berms located between Wetland E and an (a)(1)-(a)(3) water. Based upon an on-site review, a review of multiple aerial images and the assessment of corresponding Antecedent Precipitation Condition (APC) for each aerial image date, it has been determined that Wetland E meets the Exclusion (b)(1) Non-adjacent wetland. See Section II.C. for the jurisdictional

Excluded waters ((b)(1) – (b)(12)):[4]				
Exclusion Name	Exclusion Size		Exclusion[5]	Rationale for Exclusion Determination
				determination rationale for Streams 3 and 6. See Section II.D. for the jurisdictional determination rational for Stream 7.
Wetland G	0.05	acre(s)	(b)(1) Non-adjacent wetland.	Wetland G meets the definition of a wetland and it is in the center of the delineation area near the western boundary. Wetland G receives water from an erosional feature that drains Wetland E. Wetland E drains into Stream 7, which was determined to be a (b)(3) ephemeral stream. Stream 7 flows north into Stream 6, an (a)(2) Intermittent tributary that contributes surface water flow directly or indirectly to an (a)(1) water in a typical year. During the date of the Corps site visit, 8/25/2020, there was no evidence of wrack lines, sediment deposits or any other indication of flooding from Stream 6 to Wetland G. Based upon a review of Geauga County GIS Aerial Imagery dates for 2017, 2013, 2010 and 2008 and ConnectExplorer 4/2/2018, there was no evidence of inundation from Stream 6 to Wetland G. Wetland G does not abut an (a)(1)-(a)(3) water and Wetland G would not be inundated by flooding from an (a)(1)-(a)(3) water in a typical year. There are no artificial or artificial berms located between Wetland G and an (a)(1)-(a)(3) water. Based upon an on-site review, a review of multiple aerial images and the assessment of corresponding Antecedent Precipitation Condition (APC) for each aerial image date, it has been determined that Wetland G meets the Exclusion (b)(1) Non-adjacent wetland. See Section III.B for a discussion of the results of the typical years assessment, it has been determined that Wetland G meets the Exclusion (b)(1) Non-adjacent wetland. See Section II.C. for the jurisdictional determination rationale for Stream 6. See Section II.D. for the jurisdictional determination rational for Stream 7.
Erosional Feature 1	61	Linear feet	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool.	Erosional Feature 1 is located in-between Wetland E and Wetland G. Water drains from Wetland G into Wetland H, Wetland H drains into Stream 7, which was determined to be a (b)(3) ephemeral stream. Stream 7 flows into Stream 6, which flows into Stream 8. Stream 6 and Stream 8 were determined to be (a)(2) intermittent and perennial tributaries that contributes surface water flow directly or indirectly to an (a)(1) water in a typical year.

Excluded waters ((b)(1) – (b)(12)):[4]				
Exclusion Name	Exclusion Size		Exclusion[5]	Rationale for Exclusion Determination
				Erosional Feature 1 is an incised rill feature that lacks an ordinary high-water mark, defined bed and bank and sediment sorting. Photos taken on the day of the delineation, 4/8/2020, showed water in the erosional feature. On the day of the Corps site visit, 8/25/2020, water was not observed flowing in the erosional feature. A review of aerial imagery ConnectExplore 4/2/2018, 4/8/2013, 4/18/2008 and Geauga County GIS 2017, 2013, 2010, 2008 show that erosional feature lacks consistent water flow. A typical years assessment was performed and an Antecedent Precipitation Condition (APC) calculation was completed for the dates noted above. The date of the site visit was conducted in the dry season during normal precipitation conditions. The remainder of the dates assessed fell within the wet season during normal or wetter than normal preciptation conditions. This indicates that water flow observed on the date of the site vist would be typical for Erosion Feature 1. See Section III.B for a discussion of the results of the typical years assessment. Based upon a review of available information, it has been determined that Erosional Feature 1 lacks features indicative of a stream channel and has ephemeral flow and is an excluded water feature (b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool. See Section II.C. for the jurisdictional determination rationale for Streams 6 and 8. See Section II.D. for the jurisdictional determination rational for Stream 7.

III. SUPPORTING INFORMATION

A. Select/enter all resources that were used to aid in this determination and attach data/maps to this document and/or references/citations in the administrative record, as appropriate.

☒ Information submitted by, or on behalf of, the applicant/consultant: Jurisdictional Determination Request, Redwood Acquisition, LLC. – Chardon Property, Chardon Geauga County, Ohio, June 8, 2020. And Revised December 21, 2020.

This information is sufficient for purposes of this AJD.

Rationale: N/A or describe rationale for insufficiency (including partial insufficiency).

☐ Data sheets prepared by the Corps: Title(s) and/or date(s).

☒ Photographs: Aerial: Title(s) and/or date(s).

- ☒ Corps site visit(s) conducted on: 25-AUG-2020
- ☐ Previous Jurisdictional Determinations (AJDs or PJDs): ORM Number(s) and date(s).
- ☒ Antecedent Precipitation Tool: *provide detailed discussion in Section III.B*.
- ☐ USDA NRCS Soil Survey: Title(s) and/or date(s).
- ☐ USFWS NWI maps: Title(s) and/or date(s).
- ☐ USGS topographic maps: Title(s) and/or date(s).

Other data sources used to aid in this determination:

Data Source (select)	Name and/or date and other relevant information
USGS Sources	USACE ORM2 Database
USDA Sources	N/A.
NOAA Sources	N/A.
USACE Sources	USACE ORM 2 Dataset
State/Local/Tribal Sources	N/A.
Other Sources	Geauga County GIS Web Mapping Application, ConnectExplore aerial imagery, Google Earth Pro

B. Typical year assessment(s): The APT pulls precipitation data from NOAA's Daily Global Historical Climatology Network. The APT evaluates normal precipitation conditions based on the three 30-day periods preceding the observation date. For each period, a weighted condition value is assigned by determining whether the 30-day precipitation total falls within, above, or below the 70th and 30th percentiles for totals from the same date range over the preceding 30 years. The APT then makes a determination of "normal," "wetter than normal," or "drier than normal" based on the condition value sum. The APT also displays results generated via the Palmer Drought Severity Index and the University of Delaware WebWIMP.

An APT evaluation was run, associated with ConnectExplore aerial images for 4/2/2018, 4/8/2013 and 4/18/2008 and Geauga County GIS aerial images from Spring 2017, 2013, 2010 and 2008. The APT was run for Chardon, Kirtland-Holden 2, Kirtland 0.9 SW, Kirtland-Holden, Montville 1.2 SSE and Hiram. The Antecedent Precipitation Condition (APT) for 4/08/2020 was that the date is within wet season, had wet conditions for the date and was experiencing moderate wetness. The APT condition for 8/25/2020 was that the date is within the dry season, had mild wet conditions and was experiencing drier than normal precipitation conditions. The APT condition for 4/02/2018 was that the date was in the wet season, had moderate wetness conditions and was experiencing wetter than normal precipitation conditions. The APT condition for 4/08/2013 was that the date was in the wet season, had mild wetness conditions and was experiencing normal precipitation conditions. The APT condition for 4/18/2008 was that the date was in the wet season, had severe wetness, and was experiencing wetter than normal precipitation conditions. The APT condition for 5/01/2017 was that the date was in the wet season, had wetter than normal precipitation conditions, and was experiencing wetter than normal precipitation conditions. The APT condition for 5/01/2013 was that the date was in the wet season, had drier than normal precipitation conditions, and was experiencing incipient wetness conditions. The APT condition for 5/01/2010 was that the date was in the wet season, had normal precipitation conditions, and was experiencing severe wetness conditions.

Latitude	Longitude	Date	PDSI Value	PDSI Class	Season	ARC Score	Antecedent Precip Condition
41.59506	-81.22107	8/4/2020	1.32	Mild wetness	Dry Season	12	Normal Conditions
41.59506	-81.22107	8/25/2020	1.32	Mild wetness	Dry Season	8	Drier than Normal

41.59506	-81.22107	4/2/2018	2.23	Moderate wetness	Wet Season	17	Wetter than Normal
41.59506	-81.22107	4/8/2013	1.69	Mild wetness	Wet Season	13	Normal Conditions
41.59506	-81.22107	4/18/2008	3.72	Severe wetness	Wet Season	15	Wetter than Normal
41.59506	-81.22107	5/1/2017	1.66	Mild wetness	Wet Season	15	Wetter than Normal
41.59506	-81.22107	5/1/2013	0.71	Incipient wetness	Wet Season	9	Drier than Normal
41.59506	-81.22107	5/1/2010	0.12	Normal	Wet Season	13	Normal Conditions
41.59506	-81.22107	5/1/2008	3.54	Severe wetness	Wet Season	12	Normal Conditions

C. Additional comments to support AJD: A Typical Year's assessment was run to coincide with multiple aerial images obtained from ConnectExplore, Geauga County GIS Web Mapping Application and Google Earth Pro from 2020 through 2008. After a review of the Antecedent precipitation condition for each aerial image supports the findings that Erosional Feature 1, Stream 1, Stream 7 and Stream 9 have ephemeral flow and are excluded water features (b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool. The upper portion of Stream 2, Stream 4 and Stream 5 are (a)(2) intermittent tributaries that contributes surface water directly or indirectly to an (a)(1) water in a typical year. The lower portion of Stream 2, Stream 3, Stream 6 and Stream 8 are (a)(2) perennial tributaries that contributes surface water directly or indirectly to an (a)(1) water in a typical year. Wetlands A, B, E and G meet the Exclusion (b)(1) Non-adjacent wetland. Wetlands C, D, F, H and I are (a)(4) wetlands that abuts an (a)(1) – (a)(3) water. Open Water 1 is an (a)(3) Lake/pond or impoundment of a jurisdictional water contributes surface water flow directly or indirectly to an (a)(1) water in a typical year.