DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, ST. LOUIS DISTRICT
1222 SPRUCE STREET
ST. LOUIS, MISSOURI 63103

CEMVSOD-F 8 April 2024

MEMORANDUM FOR RECORD

SUBJECT: US Army Corps of Engineers (Corps) Pre-2015 Regulatory Regime Approved Jurisdictional Determination in Light of *Sackett v. EPA*, 143 S. Ct. 1322 (2023) ,[1] MVS-2020-406

BACKGROUND. An Approved Jurisdictional Determination (AJD) is a Corps document stating the presence or absence of waters of the United States on a parcel or a written statement and map identifying the limits of waters of the United States on a parcel. AJDs are clearly designated appealable actions and will include a basis of JD with the document.[2] AJDs are case-specific and are typically made in response to a request. AJDs are valid for a period of five years unless new information warrants revision of the determination before the expiration date or a District Engineer has identified, after public notice and comment, that specific geographic areas with rapidly changing environmental conditions merit re-verification on a more frequent basis.[3] For the purposes of this AJD, we have relied on section 10 of the Rivers and Harbors Act of 1899 (RHA),[4] the Clean Water Act (CWA) implementing regulations published by the Department of the Army in 1986 and amended in 1993 (references 2.a. and 2.b. respectively), the 2008 *Rapanos-Carabell* guidance (reference 2.c.), and other applicable guidance, relevant case law and longstanding practice, (collectively the pre-2015 regulatory regime), and the *Sackett* decision (reference 2.d.) in evaluating jurisdiction.

This Memorandum for Record (MFR) constitutes the basis of jurisdiction for a Corps AJD as defined in 33 CFR §331.2. The features addressed in this AJD were evaluated consistent with the definition of "waters of the United States" found in the pre-2015 regulatory regime and consistent with the Supreme Court's decision in *Sackett*. This AJD did not rely on the 2023 "Revised Definition of 'Waters of the United States,'" as amended on 8 September 2023 (Amended 2023 Rule) because, as of the date of this decision, the Amended 2023 Rule is not applicable in this state (Missouri) due to litigation.

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[1] While the Supreme Court's decision in *Sackett* had no effect on some categories of waters covered under the CWA, and no effect on any waters covered under RHA, all categories are included in this Memorandum for Record for efficiency.
[2] 33 CFR 331.2.
[3] Regulatory Guidance Letter 05-02.
[4] USACE has authority under both Section 9 and Section 10 of the Rivers and Harbors Act of 1899 but for convenience, in this MFR, jurisdiction under RHA will be referred to as Section 10.

1. SUMMARY OF CONCLUSIONS.

   a. Provide a list of each individual feature within the review area and the jurisdictional status of each one (i.e., identify whether each feature is/is not a water of the United States and/or a navigable water of the United States).

      i. Mill Creek - 3,270 linear feet, jurisdictional under Section 404

      ii. Impoundment 1 (Pond 6) - 1.71 acres, jurisdictional, Section 404

      iii. Impoundment 2 (Pond 7) - 2.99 acres, jurisdictional, Section 404

      iv. Channel 1 - 560 linear feet, non-jurisdictional

      v. Pond Complex (Pond 1 - 0.22 acres, Pond 2 - 0.36 acres, Pond 3 - 0.42 acres, Pond 4 - 0.84 acres, & Pond 5 - 2.88 acres), non-jurisdictional

      vi. Pond 8 - 0.007 acres, non-jurisdictional

      vii. Pond 9 - 0.12 acres, non-jurisdictional

      viii. Forested Wetland 1 - 1.23 acres, non-jurisdictional

2. REFERENCES.

   a. Final Rule for Regulatory Programs of the Corps of Engineers, 51 FR 41206 (November 13, 1986).

   b. Clean Water Act Regulatory Programs, 58 FR 45008 (August 25, 1993).

   c. U.S. EPA & U.S. Army Corps of Engineers, Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in *Rapanos v. United States & Carabell v. United States* (December 2, 2008)

   d. *Sackett v. EPA*, 598 U.S. _, 143 S. Ct. 1322 (2023)

   e. Memorandum to Re-evaluate Jurisdiction for NOW-2003-60436 (December 19, 2023).

3. REVIEW AREA. The review area is approximately 45-acre area, located within Section 4, Township 36 North, Range 8 East at approximately 37.8479˚ latitude and -90.153029˚ longitude. The street address is 19380 Mill Creek, Ste. Genevieve, Ste.

Genevieve County, Missouri 63670. Of note review area consists of a site that has a dam structure previously constructed and then intentionally breached which has resulted in unique site conditions and aquatic resources which are detailed in the subsequent sections.

Figure 1. Overall Review Area

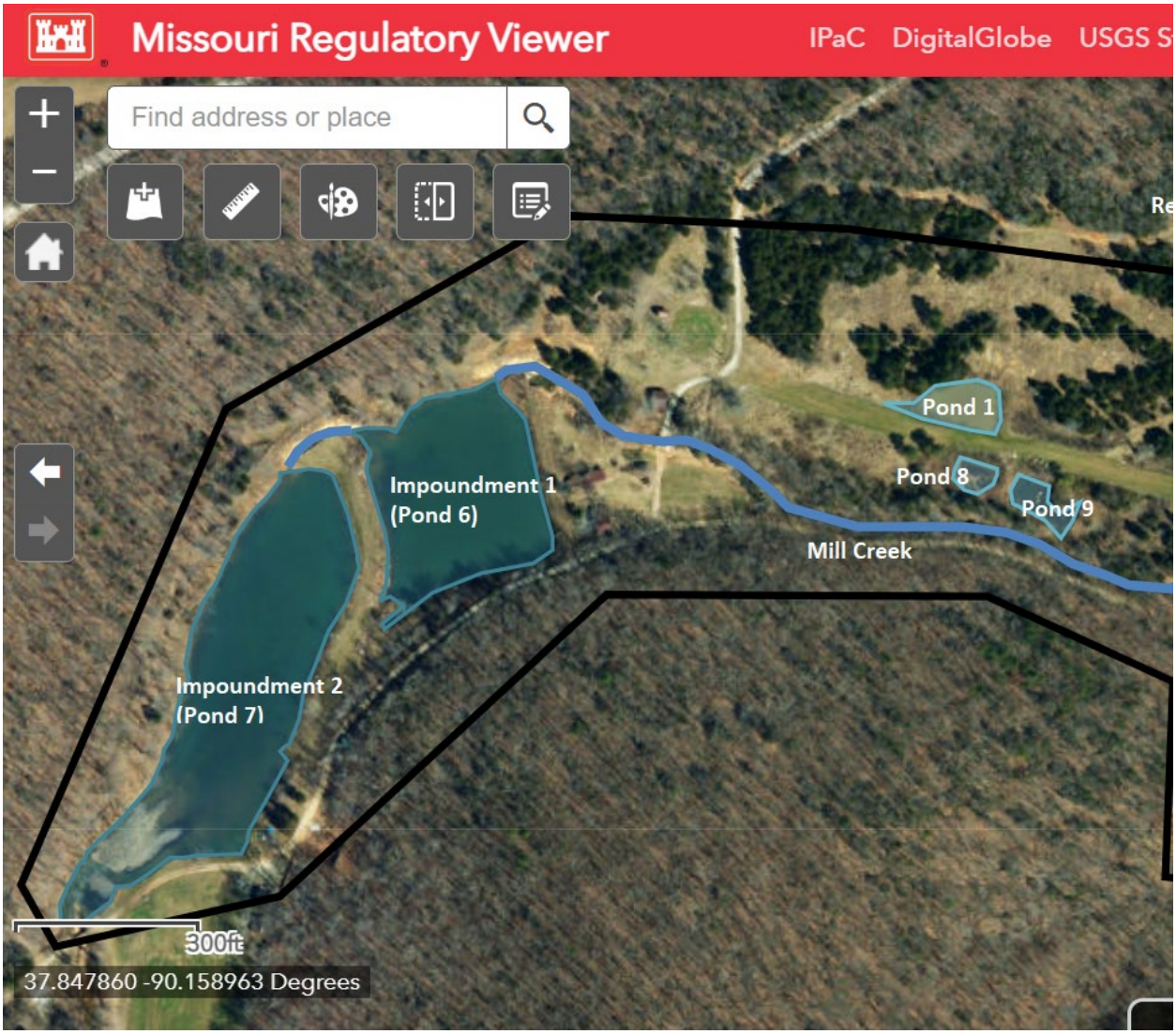

Figure 2. Western Extent of Review Area

Figure 3. Eastern Extent of Review Area

4. NEAREST TRADITIONAL NAVIGABLE WATER (TNW), INTERSTATE WATER, OR THE TERRITORIAL SEAS TO WHICH THE AQUATIC RESOURCE IS CONNECTED. The nearest downstream TNW is the navigable Mississippi River.

5. FLOWPATH FROM THE SUBJECT AQUATIC RESOURCES TO A TNW, INTERSTATE WATER, OR THE TERRITORIAL SEAS. Mill Creek flows into River Aux Vases which flows into the Old River Slough and then into the Mississippi River near River Mile 110.

6. SECTION 10 JURISDICTIONAL WATERS[5]: Describe aquatic resources or other features within the review area determined to be jurisdictional in accordance with Section 10 of the Rivers and Harbors Act of 1899. Include the size of each aquatic resource or other feature within the review area and how it was determined to be jurisdictional in accordance with Section 10.[6] N/A

7. SECTION 404 JURISDICTIONAL WATERS: Describe the aquatic resources within the review area that were found to meet the definition of waters of the United States in accordance with the pre-2015 regulatory regime and consistent with the Supreme Court's decision in *Sackett*. List each aquatic resource separately, by name, consistent with the naming convention used in section 1, above. Include a rationale for each aquatic resource, supporting that the aquatic resource meets the relevant category of "waters of the United States" in the pre-2015 regulatory regime. The rationale should also include a written description of, or reference to a map in the administrative record that shows, the lateral limits of jurisdiction for each aquatic resource, including how that limit was determined, and incorporate relevant references used. Include the size of each aquatic resource in acres or linear feet and attach and reference related figures as needed.

   a. TNWs (a)(1): N/A

   b. Interstate Waters (a)(2): N/A

   c. Other Waters (a)(3): N/A

   d. Impoundments (a)(4):

      Impoundment 1 (Pond 6) – 1.71 acres
      The waterbody is a permanent impoundment of relatively permanent tributary, Mill Creek, that appears to have been constructed to impound Mill Creek at an undetermined time prior to 1974, when it was first document via aerial imagery. It is the downstream-most impoundment of Mill Creek in a series of two adjoining instream impoundments of Mill Creek. The USGS map first identifies the impoundment in the 1980, 1:24,000 scale map and is shown in subsequent years

[5] 33 CFR 329.9(a) A waterbody which was navigable in its natural or improved state, or which was susceptible of reasonable improvement (as discussed in § 329.8(b) of this part) retains its character as "navigable in law" even though it is not presently used for commerce, or is presently incapable of such use because of changed conditions or the presence of obstructions.
[6] This MFR is not to be used to make a report of findings to support a determination that the water is a navigable water of the United States. The district must follow the procedures outlined in 33 CFR part 329.14 to make a determination that water is a navigable water of the United States subject to Section 10 of the RHA.

maps. The impoundment is visible in all available Google Earth imagery ranging from 1996 to 2022. The USFWS's National Wetlands Inventory (NWI) map shows the impoundment as a freshwater pond feature. Mill Creek is mapped in all available USGS years from 1907 to 2022 as a perennial, named stream. Its relative permanence, and the determination of its jurisdictional status as a tributary, is discussed further below in Section e. The feature has been determined to be jurisdictional as it is a persistent open water feature was created from a water of the United States (Mill Creek, a relatively permanent tributary) at the time of its construction and currently impounds a jurisdictional water (Mill Creek, a relatively permanent tributary).

Impoundment 2 (Pond 7) – 2.99 acres
The waterbody is a permanent impoundment of relatively permanent Mill Creek that appears to have been constructed at an undetermined time prior to 1974, when it was first document via aerial imagery. It is the upper-most impoundment of Mill Creek in a series of two adjoining instream impoundments of Mill Creek. The USGS map first identifies the impoundment in the 1980, 1:24,000 scale map and is shown in subsequent years maps. The impoundment is visible in all available Google Earth imagery ranging from 1996 to 2022. The USFWS's National Wetlands Inventory (NWI) map shows the impoundment as a freshwater pond feature. Mill Creek is mapped in all available USGS years from 1907 to 2022 as a perennial, named stream. Its relative permanence, and the determination of its jurisdictional status as a tributary, is discussed further below in Section e. The feature has been determined to be jurisdictional as it is a persistent open water feature was created from a water of the United States (Mill Creek, a relatively permanent tributary) at the time of its construction and currently impounds a jurisdictional water (Mill Creek, a relatively permanent tributary).

e. Tributaries (a)(5):

Mill Creek – 3,270 linear feet
The review area contains Mill Creek as a stream channel for 140 linear feet between Impoundment 2 (Pond 7) and Impoundment 1 (Pond 6); and 3,130' downstream of Impoundment 1 (Pond 6) to the downstream-most extent of the proposed dam structure. At the downstream most section of the stream within the review area, the tributary drains an approximately 1,265-acre watershed that is primarily undeveloped forested hillslopes. Mill Creek is mapped in all available USGS years from 1907 to 2022 as a perennial, named stream. The USFWS NWI map shows Mill Creek as a riverine system that flows through Impoundments 1 & 2 and the free flowing through the remainder of the review area. We believe the stream reach within the review area is within the downstream most reach of the

2nd Order segment of Mill Creek and becomes a 3rd Order stream just downstream of the review area. The conditions of the downstream-most portion of the 2nd Order Stream reach appears to be representative of the conditions of the entire Stream Order 2 segment from our review of the portions within the landowner's property and from desktop resources. On site observations by USACE and site delineators showed perennial flow present during all observations (USACE 1/8/2021, USACE 3/9/2023, S&W 11/30/2023, and S&W 1/24/2024). Based on the available information, the reach appears to typically flow year-round and thus is a relatively permanent water.

f. The territorial seas (a)(6): N/A

g. Adjacent wetlands (a)(7): N/A

8. NON-JURISDICTIONAL AQUATIC RESOURCES AND FEATURES

a. Describe aquatic resources and other features within the review area identified as "generally non-jurisdictional" in the preamble to the 1986 regulations (referred to as "preamble waters").[7] Include size of the aquatic resource or feature within the review area and describe how it was determined to be non-jurisdictional under the CWA as a preamble water. N/A

b. Describe aquatic resources and features within the review area identified as "generally not jurisdictional" in the *Rapanos* guidance. Include size of the aquatic resource or feature within the review area and describe how it was determined to be non-jurisdictional under the CWA based on the criteria listed in the guidance. N/A

c. Describe aquatic resources and features identified within the review area as waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA. Include the size of the waste treatment system within the review area and describe how it was determined to be a waste treatment system. N/A

d. Describe aquatic resources and features within the review area determined to be prior converted cropland in accordance with the 1993 regulations (reference 2.b.). Include the size of the aquatic resource or feature within the review area and describe how it was determined to be prior converted cropland. N/A

[7] 51 FR 41217, November 13, 1986.

e. Describe aquatic resources (i.e. lakes and ponds) within the review area, which do not have a nexus to interstate or foreign commerce, and prior to the January 2001 Supreme Court decision in "*SWANCC*," would have been jurisdictional based solely on the "Migratory Bird Rule." Include the size of the aquatic resource or feature, and how it was determined to be an "isolated water" in accordance with *SWANCC*.

Pond Complex (Pond 1, Pond 2, Pond 3, Pond 4, and Pond 5)

General Findings: The eastern portion of the review area was primarily cleared, and soils scraped, in many areas to support the construction of the dam in the later 1970s by the previous landowner. The 1974 aerial imagery shows Impoundments 1 & 2 of Mill Creek present but does not show site disturbance for the lake dam construction. USGS topographic maps show the lakebed partially inundated in the 1980 1:24,000 scale map and the Impoundments 1 & 2. The applicant states that the dam was intentionally breached in the 1980s by the previous landowner. The Corps does not have any Regulatory records of these events and believes they may be associated with Missouri State Dam Safety requirements. USGS maps erroneously show the lake pool present from the 1980s to the most recent 2022 maps. Aerial imagery from 1996 supports the applicant's statements that the dam was intentionally breached in the 1980s. The imagery shows that the site has been scrapped and early cedar growth visible in the disturbed footprint, with the dam breached. The disturbance can be still clearly observed by exposed soils and a stark contrast in the vegetative community in recent aerial imagery and site photos. Pond 5 is visible in the 1996 imagery and appears to have been an excavated pit at the base of the dam embankment used for borrow material. No recent excavation of Pond 5 can be observed in aerial imagery and the features is considered abandoned.

During the 2000s the applicant excavated a series of shallow ponds (Ponds 1-4) in originally upland areas within the previous lakebed for fish rearing/wildlife habitat and for fill material to be used in repairs through the property. There is a constructed road embankment, which serves as a minor levee, which runs west to east, perpendicular to the slope of the landscape, and intercepts overland sheet flow (flowing from north to south). The levee redirects overland flow to the east through the pond systems rather than allowing the overland sheet flow into Mill Creek (that would occur without the roadbed embankment). Over the years connective features formed, which include erosional ditches, swales, and beaver slides, and linear wetlands that allow for connectivity during high precipitation times from Pond 1 to Pond 2, to Pond 3, to Pond 4 and ultimately to the Forested Wetland 1 and Pond 5. In addition, the hydrology around those areas appears to have expanded over time and the USACE believes that the pools have captured

eroded sediments from the previously disturbed lake basin slopes and accumulated organic matter, reducing the shallow ponds water storage capacity, and expanding the areas of inundation around the Ponds as well as increased the scrub shrub palustrine wetland fringe below the pond complexes Ordinary High Water Mark. In addition, there is an active beaver population in the lower ponds and Mill Creek, creating beaver dams and increasing hydrology in areas. This was evidenced by areas of saturated areas with standing dead cedar trees which only form in dry conditions but have been killed by the change in hydrology. These features originally were separate and have become increasingly hydrologically connected over time and are now considered an interconnected pond complex. The redirection of surface flows through the ponds as a result of the roadway levee and the reduction of storage in the ponds all have led to an expansion of these features into an interconnected pond complex. The USFWS NWI map partially captures the features. It generally groups the series of ponds, Pond 1-4 & the Forested Wetland, into a freshwater emergent feature and Pond 5 is partially captured by a freshwater pond polygon. The map also shows a riverine feature draining through the center of the dam from Pond 5 which does not exist, nor did exist prior to these features construction.

Pond 1, 0.22 acres
A pond constructed in historic uplands that first became visible in Google Earth Aerial Imagery starting in 2018. A review of subsequent aerial imagery shows fluctuations in water level seasonally within the shallow open water pool and emergent wetland fringe below the pond Ordinary High Water Mark that would be considered a component of the pond feature. The pond does appear to occasionally discharge during wet times of the year along the roadside ditch/swale (adjacent to the north) of the roadbed for over 580 linear feet to the east towards Pond 2 (USACE Site Photo TimePhoto_134-528).

Pond 2, 0.36 acres
A pond constructed in historic uplands that first became visible in Google Earth Aerial Imagery starting in 2007. It receives drainage from approximately 21.5 acres of the adjacent hillslopes which sheet flows towards the feature or is redirect towards the feature by the roadbed running perpendicular to the landscape slope (which includes drainage from Pond 1). The feature currently is most appropriately described as a shallow open water feature with fringe emergent and scrub shrub wetland. The eastern berm is low, estimate 1.5 feet, and narrow (15 wide) with no constructed spillway structure, which has forced flow to discharge along the lowest topographic area. There was evidence of a swale at the northeastern edge of the feature which discharges during high rainfall periods into the downgradient Pond 3 (USACE Site Photo TimePhoto_20230309_133547 & _133549).

Pond 3, 0.42 acres
A pond constructed in historic uplands that first became visible in Google Earth Aerial Imagery starting in 2007. Similar to the other pond features it consists of a of shallow open water pool with emergent and scrub shrub portions. It receives flow from Pond 1, Pond 2 and the adjacent hillslopes. The roadway berm restricts flow from the previous drainage path to the south overflow from the pond appears to discharge atop pond berm. This berm is low in elevation relative to its pool but has greater slope along the backslope with about 3 feet of fall across a more gradual (100 foot) distance. Diffuse overland flows as well as concentrated flow passage through a beaver slide connect flow into the downgradient Pond 4 (USACE Site Photo TimePhoto_20230309_132838).

Pond 4, 0.84 acres
A pond constructed in historic uplands that first became visible in Google Earth Aerial Imagery starting in 2007. The feature has developed overtime to form emergent and scrub shrub wetland portions in addition to the original open water wetland feature. Pond 4 receives flow from the adjacent hillslopes and the pond features to the west that are located upgradient of the road embankment. The road embankment restricts any flow from discharging into Mil Creek and the wetland area was observed to discharge through a linear wetland swale (USACE Site Photo TimePhoto_20230309_131958) in its northeast into the Forested Wetland 1 during the USACE March 9, 2023 site visit.

Pond 5, 2.88 acres
Pond 5 was constructed in historic uplands that first became visible in Google Earth Aerial Imagery starting in 1996. It is believed that this area was likely heavily used as a borrow site for the lake dam, which it is located at the base of. Following the intentional breach of the lake dam, the feature appears to have consistently been present but not actively utilized, it was minorly expanded in 2009 increasing the open water areas with no further modifications.

Hydrological Assessment: These features are the final catchment of the overland flow off the adjacent hillside and flow that is diverted by the road embankment through the series of ponds with interconnecting wetland fringe. It received flow that travels from through Pond 1 to Pond 2 to Pond 3 to Pond 4 to the Forested Wetland 1 and open water Pond 5. It captures a 48-acre watershed area and the abandoned borrow pit, which has converted into open water and forested wetland has no direct discharge features into Mill Creek. The roadbed serves as the pond embankment but also the left descending bank of Mill Creek. Hydrological outputs were found to be limited to evapotranspiration with no direct discharge mechanism from pond complex during normal conditions.

The pond complex appears to primary lose water through evapotranspiration, but it does appear that during wetter than normal conditions, during the wet season, when excessive rainfall and flow from the Pond Complex contributes to the capacity of the Pond 5 basin being exceeded, that flow overtops the roadway berm via overland sheet flow into Mill Creek at two low lying locations along the embankment (each estimated at approximately 65 feet wide). Of nine aerial imagery captures taken since 2012 only one image shows the basin sheet flowing over the roadway embankment in April 25, 2022. The APT finds that this flow occurred during the wet season in wetter than normal conditions, not representing normal site conditions. Sheet flow across the roadway embankment was observed in low lying areas during the spring March 9, 2023 but not during the USACE's initial site visit September 11, 2020. In reviewing the APT the flow observed on March 9, 2023 was during the wet season in wetter than normal conditions and the lack of flow on September 11, 2020 occurred during the dry season under normal conditions. The review of flow observations from both aerial imagery and site observations show that Pond 5 overtops the basin under wetter than normal conditions, during the wet season, and outside of those conditions flow has not been observed to occur from Pond 5 into Mill Creek.

Figure 4. An April 25, 2022 Google Earth aerial of overtopping area during wet season in wetter than normal conditions.

Figure 5. USACE site visit photo (TimePhoto_20230309_130422) showing areas where embankment overtops during wet season in wetter than normal conditions.

Figure 6. USACE September 11, 2020 site visit photo of road embankment without any overflow during dry season with normal conditions present.

Observation Type	Observation Date	Condition Observed	APT Findings
Google Earth	2023-07-11	No Flow	Dry Season; Drier than Normal
USACE Site Visit	2023-03-09	Limited Flow	Wet Season; Wetter than Normal
Digital Globe	2023-02-25	No Flow	Wet Season; Normal Conditions
Digital Globe	2022-09-15	No Flow	Dry Season; Wetter than Normal
Google Earth	2022-08-30	No Flow	Dry Season; Normal Conditions
Google Earth	2022-04-25	Flow	Wet Seasons; Wetter than Normal
Digital Globe	2021-10-10	No Flow	Wet Season; Wetter than Normal
USACE Site Visit	2020-09-11	No Flow	Dry Season; Normal Conditions
Digital Globe	2018-10-17	No Flow	Wet Season; Normal Conditions
Google Earth	2015-10-12	No Flow	Wet Season Normal Conditions
Google Earth	2012-06-04	No Flow	Dry Season; Drier than Normal

Conclusion: The pond complex (including forested wetland 1 below the OHWM of Pond 5) was found to not meet the definition of a jurisdictional waters of the U.S. First, the feature was determined not to meet the definition of an (a)1

navigable water. These features were also assessed under the provision in the 1986 definition's preamble covering "generally non-jurisdictional" features, particularly "Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States." While the features were found to generally met the provisions of the preamble provision for "generally non-jurisdictional features," all features were found to be "created in dry land incidental to construction activity and pits excavated in dry land" and might still qualify for this generally non-jurisdictional category because although abandoned they qualify because the features were found not to meet the definition of any WOTUS category (see following paragraph). However, it was determined that the redirection of hydrology through the complex, resulting in the expansion of aquatic resources beyond that of solely "water filled depressions," made it most appropriate to document the non-jurisdictional status of these aquatic resources in sections 8.e. and 8.f. of this MFR.

The desktop resources have confirmed that the pond complex was constructed in historic uplands for activities that included the excavation for fill material. Desktop and on-site observations were able to confirm that the excavation operations have been abandoned in the features for numerous years. An assessment of whether the pond complex now meeting the definition of a waters of United States is as follows: the pond complex is separated by the upland constructed roadway embankment from Mill Creek throughout its length. At the downstream most receiving point in the pond complex, at Pond 5, Mill Creek is incised at this location (potentially for previous relocation associated with original dam construction) and separated by the roadway berm. The difference in pool elevations from Pond 5 to Mill Creek is significant approximately 4-foot elevation difference. Hydrological interaction between the Pond Complex and Mill Creek is limited only to the diffuse sheet flow overtopping of two areas of slightly lower topographic elevation (each approximately 65 feet wide) along the roadway levee and into Mill Creek, similar to levee overtopping areas. We do not believe that the overland sheet overtopping of the roadway embankment in the lower elevation areas constitute a jurisdictional connection that would support the open water features meeting the definition of a waters of the United States as a tributary or as an impoundment. The pond complex was also evaluated under paragraph (a)(3) of the 1986 definition, and it was determined that the pond features have no capacity to contribute to or affect interstate or foreign commerce as they are contained within a residential property used for private recreation. Therefore, the pond complex was therefore determined to not meet the definition of a water of the United States.

Pond 8 - 0.007 acres
A small pond constructed in historic uplands, that did not impound a Waters of the U.S., that first became visible in Google Earth Aerial Imagery starting in 2007. This is a deeply incised pond that appears to only hold rainfall that falls within this footprint with no outfall. The pond is excavated within an elevated terrace along Mill Creek and due to the difference in elevation the pond does not appear to contribute any surface water to the nearby Mill Creek from overland flow. The pond feature does not meet any of the requirements for a jurisdictional WOTUS and was found to be non-jurisdictional aquatic resource.

Pond 9 - 0.12 acres
A pond constructed in historic uplands that first became visible in Google Earth Aerial Imagery starting in 2007. The conditions of this pond are nearly identical to that of Pond 8. It is a small, deep, isolated pool constructed in uplands that captures only rainfall that falls on within its footprint, with no outlet structure and does not contribute surface water flows to Mill Creek. The pond feature does not meet any of the requirements for a jurisdictional feature and was found to be a non-jurisdictional aquatic resource.

*Note: In addition, both ponds were evaluated on whether they could be considered an A(3) Other Waters and was not found to contribute nor affect interstate or foreign commerce. The pond is extremely small and used to create wildlife habitat on a small scale within a private residential property that does not have any commercial value and does not contribute, or have a nexus to, interstate nor foreign commerce.

f. Describe aquatic resources and features within the review area that were determined to be non-jurisdictional because they do not meet one or more categories of waters of the United States under the pre-2015 regulatory regime consistent with the Supreme Court's decision in *Sackett* (e.g., tributaries that are non-relatively permanent waters; non-tidal wetlands that do not have a continuous surface connection to a jurisdictional water).

Channel 1 – 560 linear feet
An ephemeral stream channel that drains a small 25-acre watershed located south of the review area. The stream channel drains the adjacent hillslopes following rainfall events and does not appear to have any groundwater influence to extend flows beyond that of those shortly after a rainfall event. The stream channel does not support relatively permanent flow (i.e. the stream does not

have continuous flow at least seasonally) and therefore was determined to not be a jurisdictional water.

Forested Wetland 1, 1.23 acres

Forested Wetland 1 is directly connected to the upgradient Pond 4 via linear wetland and is within the upper gradient area (western portion) of Pond 5, with a large portion below the Ordinary High Water Mark of Pond 5. Saturation signatures within the Forested Wetland area are visible in the Google Earth 1996 aerial and subsequent years show recruitment of voluntary vegetation, shifting through the successional stages to its current condition of a forested wetland with full growth tree canopy. Current conditions include a range of permanently flooded to semipermanently flooded forested wetland depended upon the Ordinary High Water Mark of Pond 5 and the overall Pond Complex.
The feature appears to have been formed from expanded hydrology from the upgradient portion of the pond complex (Ponds 1-4) and also expansion of inundation areas associated with abandoned borrow pit, Pond 5. Forested Wetland 1 is in direct hydrological connection with Pond 5 and drains towards Pond 5 during fluctuating water levels. As discussed more in-depth above in Section 8.e., Pond 5 does not have a direct connection to Mill Creek and is separated by the southern embankment, which also serves as the left descending bank of Mill Creek, an (a)5 waters. Flow from the Ponds 1-4, forested wetland 1, and Pond 5 only discharges into Mill Creek during wetter than wet conditions in the wet season in two overland flow locations (each approximately 65’ wide), similar in manner to a levee overtopping. This limited connection was not found to support a viable continuous surface connection needed in order for Forested Wetland 1 to be considered an adjacent wetland.

9. DATA SOURCES. List sources of data/information used in making determination. Include titles and dates of sources used and ensure that information referenced is available in the administrative record.

a. USACE September 11, 2020 & March 9, 2023 Site Visits

b. Shannon & Wilson Waters of the U.S. Summary Report, January 24, 2024

c. Google Earth Aerial Imagery, 3/9/1996, 12/31/2002 (exact date likely incorrect due to leaf on during winter months), 7/28/2004, 6/14/2005, 6/9/2006, 6/14/2007, 6/15/2009, 10/5/2010, 6/4/2012, 11/29/2013, 10/12/2015, 10/17/2018, 4/25/2022, 8/30/2022

d. USGS Topographic Maps, accessed via TopoViewer.gov on 12/12/2023

e. USFWS National Wetlands Inventory maps, 1/24/2024

f. USACE National Regulatory Viewer, accessed 12/12/2023

g. HistoricAerials.com, accessed 12/12/2023

h. MAXAR Global Enhanced GEOINT Delivery Digital Globe aerials, accessed 2/8/2024

i. Antecedent Precipitation Tool, accessed 2/8/2024

10. OTHER SUPPORTING INFORMATION. NA

11. NOTE: The structure and format of this MFR were developed in coordination with the EPA and Department of the Army. The MFR's structure and format may be subject to future modification or may be rescinded as needed to implement additional guidance from the agencies; however, the approved jurisdictional determination described herein is a final agency action.