

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

CEMVS-RD

21 February 2025

MEMORANDUM FOR RECORD

SUBJECT: US Army Corps of Engineers (Corps) Approved Jurisdictional Determination in accordance with the "Revised Definition of 'Waters of the United States'"; (88 FR 3004 (January 18, 2023) as amended by the "Revised Definition of 'Waters of the United States'; Conforming" (8 September 2023) ,¹ MVS-2021-335²

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.³ 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.⁴

On January 18, 2023, the Environmental Protection Agency (EPA) and the Department of the Army ("the agencies") published the "Revised Definition of 'Waters of the United States," 88 FR 3004 (January 18, 2023) ("2023 Rule"). On September 8, 2023, the agencies published the "Revised Definition of 'Waters of the United States'; Conforming", which amended the 2023 Rule to conform to the 2023 Supreme Court decision in *Sackett v. EPA*, 598 U.S., 143 S. Ct. 1322 (2023) ("*Sackett*").

This Memorandum for Record (MFR) constitutes the basis of jurisdiction for a Corps AJD as defined in 33 CFR §331.2. For the purposes of this AJD, we have relied on Section 10 of the Rivers and Harbors Act of 1899 (RHA),⁵ the 2023 Rule as amended, as well as other applicable guidance, relevant case law, and longstanding practice in evaluating jurisdiction.

¹While the Revised Definition of "Waters of the United States"; Conforming 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 When documenting aquatic resources within the review area that are jurisdictional under the Clean Water Act (CWA), use an additional MFR and group the aquatic resources on each MFR based on the TNW, the territorial seas, or interstate water that they are connected to. Be sure to provide an identifier to indicate when there are multiple MFRs associated with a single AJD request (i.e., number them 1, 2, 3, etc.).

³ 33 CFR 331.2.

⁴ Regulatory Guidance Letter 05-02.

⁵ 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.

SUBJECT: 2023 Rule, as amended, Approved Jurisdictional Determination in Light of *Sackett v. EPA*, 143 S. Ct. 1322 (2023), MVS-2021-335

- 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).
 - 1. Channel E (1,184 feet), non-jurisdictional
 - 2. Channel G (1st Order) (361 feet), non-jurisdictional
 - 3. Channel G (2nd Order) (1,271 feet), non-jurisdictional
 - 4. Channel G (3rd Order) (1,892 feet), non-jurisdictional
 - 5. Channel G4 (652 feet), non-jurisdictional
 - 6. Channel G5 (870 feet), non-jurisdictional
 - 7. Channel G6 (763 feet), non-jurisdictional
 - 8. Channel G8 (995 feet), non-jurisdictional
 - 9. Channel G9 (1st Order) (607 feet), non-jurisdictional
 - 10. Channel G9 (2nd Order) (890 feet), non-jurisdictional
 - 11. Channel G9A (302 feet), non-jurisdictional
 - 12. Channel G9B (87 feet), non-jurisdictional
 - 13. Channel G10 (663 feet), non-jurisdictional
 - 14. Channel G11 (785 feet), non-jurisdictional
 - 15. Channel G12 (780 feet), non-jurisdictional
 - 16. Channel SR-1 (2nd Order) (413 feet), non-jurisdictional
 - 17. Channel SR-1 (3rd Order) (1,931 feet), non-jurisdictional
 - 18. Channel SR-2 (120 feet), non-jurisdictional
 - 19. Channel SR-3 (266 feet), non-jurisdictional
 - 20. Channel SR-4 (1st Order) (1,040 feet), non-jurisdictional
 - 21. Channel SR-4 (2nd Order) (259 feet), non-jurisdictional
 - 22. Channel SR-5 (365 feet), non-jurisdictional
 - 23. Channel SR-6 (445 feet), non-jurisdictional
 - 24. Channel SR-9 (129 feet), non-jurisdictional
 - 25. Channel SR-15 (837 feet), non-jurisdictional
 - 26. Open Water A (0.29-acre), non-jurisdictional
 - 27. Open Water B (0.50-acre), non-jurisdictional
 - 28. Wetland A (0.24-acre), non-jurisdictional
 - 29. Wetland B (0.05-acre), non-jurisdictional

2. REFERENCES.

- a. "Revised Definition of 'Waters of the United States," 88 FR 3004 (January 18, 2023) ("2023 Rule")
- b. "Revised Definition of 'Waters of the United States'; Conforming" 88 FR 61964(September 8, 2023)

- c. Sackett v. EPA, 598 U.S. 651, 143 S. Ct. 1322 (2023)
- d. Citing to the 27 September coordination memo, specifically to the language which reads, "Because the Supreme Court in Sackett adopted the Rapanos plurality standard and the 2023 rule preamble discussed the Rapanos plurality standard, the implementation guidance and tools in the 2023 rule preamble that address the regulatory text that was not amended by the conforming rule, including the preamble relevant to the Rapanos plurality standard incorporated in paragraphs (a)(3), (4), and (5) of the 2023 rule, as amended, generally remain relevant to implementing the 2023 rule, as amended."
- 3. REVIEW AREA. The Review Area is the approximately 436.9-acre footprint of a proposed coal refuse disposal area at Sugar Camp Mine No. 1 located at Latitude 38.0339° and Longitude -88.7478°, south of Highway 14, north of Thompsonville, Franklin County, Illinois.
- 4. NEAREST TRADITIONAL NAVIGABLE WATER (TNW), THE TERRITORIAL SEAS, OR INTERSTATE WATER TO WHICH THE AQUATIC RESOURCE IS CONNECTED. Big Muddy River (TNW)
- 5. FLOWPATH FROM THE SUBJECT AQUATIC RESOURCES TO A TNW, THE TERRITORIAL SEAS, OR INTERSTATE WATER. Akin Creek is the receiving water for all the surface drainage that leaves the Review Area to south. Akin Creek is a tributary to the Middle Fork Big Muddy River, which eventually intersects the Big Muddy River, a TNW. The Big Muddy River is a Section 10 water from mile 0 to mile 51.9, near DeSoto, Illinois.
- 6. SECTION 10 JURISDICTIONAL WATERS⁶: 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 10.⁷ N/A

⁶ 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.

⁷ 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.

SUBJECT: 2023 Rule, as amended, Approved Jurisdictional Determination in Light of *Sackett v. EPA*, 143 S. Ct. 1322 (2023), MVS-2021-335

- 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 2023 Rule as amended, 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 2023 Rule as amended. 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. Traditional Navigable Waters (TNWs) (a)(1)(i): N/A
 - b. The Territorial Seas (a)(1)(ii): N/A
 - c. Interstate Waters (a)(1)(iii): N/A
 - d. Impoundments (a)(2): N/A
 - e. Tributaries (a)(3): N/A
 - f. Adjacent Wetlands (a)(4): N/A
 - g. Additional Waters (a)(5): N/A

8. NON-JURISDICTIONAL AQUATIC RESOURCES AND FEATURES

- a. Describe aquatic resources and other features within the review area identified in the 2023 Rule as amended as not "waters of the United States" even where they otherwise meet the terms of paragraphs (a)(2) through (5). Include the type of excluded aquatic resource or feature, the size of the aquatic resource or feature within the review area and describe how it was determined to meet one of the exclusions listed in 33 CFR 328.3(b).⁸ N/A
- b. 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 2023 Rule as amended (e.g., tributaries that are non-relatively permanent waters; non-tidal wetlands that do not have a continuous surface connection to a jurisdictional water).
 - Wetland A is a linear depressional wetland along SR-1 (2nd Order) where the surrounding topography flattens out capturing flow from the upslope non-RPW tributaries during large precipitation events. Drainage exits the wetland south in SR-1 (2nd Order) before draining into SR-1 (3rd Order)

⁸ 88 FR 3004 (January 18, 2023)

SUBJECT: 2023 Rule, as amended, Approved Jurisdictional Determination in Light of *Sackett v. EPA*, 143 S. Ct. 1322 (2023), MVS-2021-335

shortly thereafter. SR-1 (3rd Order) flows 2,334 feet before intersecting SR-10, a RPW tributary at Latitude 38.0282° and Longitude -88.7346°.

Flow Path: Wetland A -> SR-1 (2nd Order) (210 feet) -> SR-1 (3rd Order) (2,334 feet) -> SR-10 (Requisite Water – RPW tributary).

Based on the length of the flow path (2,544 feet) through two (2) non-RPW tributaries, the Corps has determined that the approximately 0.48-mile physical connection between the wetland and the relatively permanent water is long, and the connection is via non-RPW tributaries. After consideration of flow, the number and types, and the length of connection, the 2,534-foot length of connection between this wetland and the requisite covered water is not physically close enough to meet the continuous surface connection requirement. Thus, Wetland A does not have a continuous surface connection to the downstream relatively permanent tributary and, consistent with Sackett, is not "adjacent."

- Wetland B is a depressional wetland that collects run-off from within surrounding uplands, and diffuse flow exiting Open Water A. Drainage exiting Wetland B flows into an upland grass waterway, which was constructed to facilitate surface run-off from the adjacent agricultural fields south out of the Review Area. North of the waterway, a non-RPW tributary (SR-15) remains in a narrow riparian corridor. The waterway continues south out of the Review Area where it eventually begins to down-cut into a non-RPW tributary. The non-RPW tributary continues south eventually intersecting an RPW tributary (requisite water) at Latitude 38.0226° and Longitude -88.7367°.
 - Flow Path: Wetland B -> grass waterway (2,050 feet) -> culvert (45 feet) -> non-RPW tributary (875 feet) -> Requisite Water RPW tributary.

Based on the length of the flow path (2,970 feet) through three (3) features, the Corps has determined that the approximately 0.56-mile physical connection between the wetland and the relatively permanent water is long, and the connection is via an upland waterway, culvert, and a non-RPW tributary between the wetland and the requisite water. The upland waterway has predominantly weak physical indicators of flow frequency and duration, except during and after a precipitation event when water is flowing, or vegetation is bent over. After consideration of flow, the number and types, and the length of connection, the 2,970-foot length of connection between this wetland and the requisite covered water is not physically close enough to meet the continuous surface connection

CEMVS-RD SUBJECT: 2023 Rule, as amended, Approved Jurisdictional Determination in Light of *Sackett v. EPA*, 143 S. Ct. 1322 (2023), MVS-2021-335

requirement. Thus, Wetland B does not have a continuous surface connection to the downstream relatively permanent tributary and, consistent with Sackett, is not "adjacent."

- **Open Water A** & **B** exist as wetlands but were constructed as ponds with • earthen embankments. The earthen embankments previously breached, permanently lowering water levels. Since being breached, the features have developed wetland characteristics within their respective limits, meeting the definition of a wetland rather than a deepwater aquatic habitat. Neither feature was observed with a tributary entering or exiting the limits of the OHWM nor was either feature constructed on an aquatic resource that would have previously met or currently meets the definition of a water of the United States. As such, the features were evaluated as (a)(4) waters. The features lie in the remnant depressions of previous open water features that have small, localized watersheds (<7-acres). Outflow through the embankment breaches is limited as evidenced by the presence of upland areas and lack of discrete features immediately downslope. Diffuse flow through the breaches and into upland areas would be limited to only during large precipitation events.
 - Flow Path: Open Water A -> uplands (126 feet) -> Wetland B (80 feet) -> grass waterway (2,050 feet) -> culvert (45 feet) -> non-RPW tributary (875 feet) -> Requisite Water RPW tributary.
 - Flow Path: Open Water B -> uplands (242 feet) -> Channel G4 (1,163 feet) -> Channel G (3,118 feet) ->(Requisite Water – RPW tributary.

As flow exits each of these aquatic resources via diffuse flow across upland areas with limited indicators of flow frequency or duration, followed by other long non-RPW aquatic resources, neither Open Water A nor B contains a continuous surface connection to a downslope requisite water.

Channels: G (1st Order), G (2nd Order), G12, G11, G10, G9A, G9B, G9 (1st Order), G9 (2nd Order), G8, G6, G5, G4, SR-15, SR-1(2nd Order), SR-2, SR-3, SR-4 (1st Order), SR-4 (2nd Order), SR-5, SR-6, SR-9, SR-12, SR-15, E

Each of these twenty-four (24) tributaries are first- or second- tributaries, that lie within the upper extents of small agricultural and/or forested watersheds. Based on observed conditions during site visits performed by both Alliance and/or USACE and each tributaries physical characteristics, the onset of streamflow coincides with precipitation events and ceases

SUBJECT: 2023 Rule, as amended, Approved Jurisdictional Determination in Light of *Sackett v. EPA*, 143 S. Ct. 1322 (2023), MVS-2021-335

shortly after the termination of overland run-off. These systems do not have large enough watersheds or groundwater connections that would sustain baseflows at least seasonally, but rather maintain a repeated sequence of streamflow, flow cessation, and channel drying throughout the year. Based on their location within their respective watershed, and the lack of standing or flowing water for more than a short duration in direct response to precipitation, these features would not meet the Relatively Permanent Standard.

- Channel SR-1 (3rd Order) (1,931 Feet) is a third-order tributary with a • roughly 142-acre watershed. The tributary was observed with varying physical characteristics throughout the stream reach, as evidenced by the changes in depth to top of bank, channel width, and differences in OHWM. The onset of streamflow coincides with precipitation events and cease shortly after the termination of overland run-off. Even with presumed back-to-back storm events throughout the watersheds, the system would not sustain baseflows for extended periods of time, but rather maintain a repeated sequence of streamflow, flow cessation, and channel drying throughout the year. The flow characteristics at the downstream end of the reach accurately represented the stream reach to be evaluated. The stream reach contained an inconsistent bed and bank and ordinary highwater mark width because of a <150-acre watershed and relatively modest slopes. There was no evidence of groundwater, only flows from precipitation events. Based on its location within the local watershed and the lack of standing or flowing water for more than a short duration in direct response to precipitation, Channel SR-1 (3rd Order) would not meet the Relatively Permanent Standard.
- Channel G (3rd Order) (1,892 Feet) is a third order stream with an • evaluated reach (6,086 feet) extending from the confluence of Channel G9 (2nd Order) and Channel G (2nd Order) south to its confluence with another third order unnamed tributary to Akin Creek. Slopes within the stream reach fall between 1 and 2 percent and the watershed is approximately 283-acres in size. The reach lies within a narrowly mapped Belknap soil series, surrounded by Ava and Blair soil series, which primarily have hydrologic group ratings of C and D (moderate to high run-off potential when wetted) and 1-to-3-foot depths to saturated zones in the soil (water table) during the wet season. These mapped soils do not coincide directly with observed substrates within the streambed, which were dominated by coarse sands, as well as some gravel and sandstone. The upper limits of the reach, north of the rail loop, do not contain a consistent low-flow channel or thalweg, but rather an undulating bed elevation, demonstrating episodic flow associated with discrete precipitation events, which carry

SUBJECT: 2023 Rule, as amended, Approved Jurisdictional Determination in Light of *Sackett v. EPA*, 143 S. Ct. 1322 (2023), MVS-2021-335

sediment loads, but without continuous flow volumes and/or velocities for a long enough duration to maintain a consistent bed elevation through the reach. Numerous site visits conducted over the course of 18 months, primarily to observe Channel G and the other tributaries, provided opportunity to evaluate the stream reach in varying weather and climatic conditions (see Section 10 below). During the visits, the Corps was able evaluate the seasonal fluctuations and the cessation of flows following numerous precipitation events. During the dry season (June-October) and into the early wet season (October-January), flows were only observed within a day or two of precipitation events, including after 2+ inches of rainfall within 24-hours. The channel contained longer duration periods of flow and standing water (e.g. 2 to 4 weeks) during February and March 2024 because of back-to-back storm events and saturated conditions throughout the watershed; however, cessation of flows into isolated pools were also observed during early spring months following conclusion of outflow from the soil profile. The flow characteristics were observed being similar throughout the entire evaluated reach. Observed tributary conditions in various climatic conditions, desktop analyses, combined with the systems physical characteristics provide weight-of-evidence that the tributary flows in direct response to precipitation events for varying periods of time and maintains a repeated sequence of streamflow, flow cessation, and channel drying throughout the year. As such, the tributary does not have continuous flow at least seasonally, and therefore does not meet the Relatively Permanent Standard.

- 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. Revised Wetland Delineation Report Alliance Consulting (December 2024)
 - 1. Streams and Wetland Determinations; Eco-Source (February 2012)
 - 2. Wetland Delineation Info; HDR/CWI (April 2007)
 - 3. Wetland and Stream Inventory Report; Alliance Consulting (April 2008)
 - b. USACE Visits: 10-25-23 /1-24-24 /3-20-24 /4-30-24 /8-26-24 /10-10-24 /11-7-24
 - c. USGS Topographic Maps, 1:24,000 Scale, Macedonia, IL Quad
 - d. USGS NHDPlus
 - e. USGS Stream Stats
 - f. Antecedent Precipitation Tool
 - g. USDA-NRCS Soil Survey for Franklin County, Illinois
 - h. USFWS National Wetland Inventory, Color Infrared, 1980's, 1:58,000 Scale
 - i. Illinois Height Modernization (ILHMP) LiDAR Data
 - j. Illinois Historic Aerial Photography ISGS Geospatial Data Clearinghouse
 - k. Google Earth Pro Aerial Imagery, Various Aerial Images

SUBJECT: 2023 Rule, as amended, Approved Jurisdictional Determination in Light of *Sackett v. EPA*, 143 S. Ct. 1322 (2023), MVS-2021-335

10. OTHER SUPPORTING INFORMATION.

Joint Policy Memorandums: NWK-2024-00392, POH-2023-187, NWK-2022-00809, NAP-2023-01223, & SWG-2023-00284

Antecedent Precipitation Tool Results – Delineation & USACE Site Visit Dates:

Date of Visit (Company): WebWIMP Balance / Condition / PDSI (PPT in last 2 wks.)

February 28, 2007 (Alliance): Wet Season / Normal Cond. / Severe Wetness (3.39-in) March 2, 2007 (Alliance): Wet Season / Normal Cond. / Incipient Drought (1.51-in) October 18, 2011 (Eco-Source): Wet Season / Normal Cond. / Ext. Wetness (1.13-in) November 7, 2011 (Eco-Source): Wet Season / Normal Cond. / Ext. Wetness (1.13-in) October 25, 2023 (USACE): Wet Season / Normal Cond. / Mild Drought (0.34-in) January 24, 2024 (USACE): Wet Season / Normal Cond. / Mod. Drought (1.82-in) March 12, 2024 (Alliance): Wet Season / Normal Cond. / Severe Drought (0.85-in) March 20, 2024 (USACE): Wet Season / Normal Cond. / Severe Drought (0.83-in) August 26, 2024 (USACE): Dry Season / Drier than Normal / Mild Drought (0.51-in) October 10, 2024 (USACE): Wet Season / Normal Cond. / No D.I. (4.35-in) November 7, 2024 (USACE): Wet Season / Normal Cond. / Incip. Drought (2.62-in)

Rainfall Data (2024) – Weather Underground WunderMap

 (Station ID: KILTHOMP9) – 4.31-miles from Review Area July 1 to July 31: 5.15-inches August 1 to August 31: 1.73-inches September 1 to September 30: 7.33-inches

SDAM NESE (beta) Results:

- Channel G Reach 1: Ephemeral (beginning of 3rd Order downstream 114-meters)
- Channel G Reach 2: Ephemeral (Rail Loop North 228-meters)
- Channel G Reach 3: At least Intermittent (Rail Loop South 140-meters)

SUBJECT: 2023 Rule, as amended, Approved Jurisdictional Determination in Light of *Sackett v. EPA*, 143 S. Ct. 1322 (2023), MVS-2021-335

Feature ID	Stream Order (Del.)**	Latitude	Longitude	Length (feet)	NHD Stream Order	30-Percent Duration* (CFS)	Watershed Size (acres)	Flow
Channel E	1	38.0298°	-88.7512°	1,184	1	0.0028	25	NRPW
Channel G	1	38.0350°	-88.7414°	361	1	N/A	15	NRPW
Channel G	2	38.0341°	-88.7454°	1271	1	0.0206	135	NRPW
Channel G	3	38.0284°	-88.7495°	1892	1	0.0485	283	NRPW
Channel G4	1	38.0209°	-88.7476°	652		N/A	16	NRPW
Channel G5	1	38.0291°	-88.7476°	870		N/A	11	NRPW
Channel G6	1	38.0291°	-88.7476°	763		N/A	10	NRPW
Channel G8	1	38.0291°	-88.7476°	995		N/A	12	NRPW
Channel G9	1	38.0349°	-88.7458°	607		N/A	7	NRPW
Channel G9	2	38.0341°	-88.7454°	890		N/A	45	NRPW
Channel G9A	1	38.0353°	-88.7465°	302		N/A	10	NRPW
Channel G9B	1	38.0364°	-88.7468°	87		N/A	<5	NRPW
Channel G10	1	38.0304°	-88.7464°	663		N/A	9	NRPW
Channel G11	1	38.0359°	-88.7436°	785		N/A	18	NRPW
Channel G12	1	38.0354°	-88.7422°	780		N/A	28	NRPW
Channel SR-1	2	38.0339°	-88.7352°	413	1	0.0089	66	NRPW
Channel SR-1	3	38.0284°	-88.7495°	1931	1	0.0218	142	NRPW
Channel SR-2	1	38.0369°	-88.7366°	120		N/A	8	NRPW
Channel SR-3	1	38.0345°	-88.7360°	266		N/A	14	NRPW
Channel SR-4	1	38.0347°	-88.7345°	1040		N/A	13	NRPW
Channel SR-4	2	38.0352°	-88.7355°	259		N/A	31	NRPW
Channel SR-5	1	38.0352°	-88.7350°	365		N/A	14	NRPW
Channel SR-6	1	38.0320°	-88.7349°	445		N/A	13	NRPW
Channel SR-9	1	38.0288°	-88.7343°	129		N/A	<5	NRPW
Channel SR-15	1	38.0311°	-88.7387°	837	1	N/A	9	NRPW

Table 1. Streams within the Review Area

*Flow-Duration Statistics for Exceedance Probabilities taken from USGS Stream Stats are based on: Over, T.M., Riley, J.D., Marti, M.K., Sharpe, J.B., and Arvin, D., 2014, Estimation of regional flow-duration curves for Indiana and Illinois (ver. 2.0, April 2022): U.S. Geological Survey Scientific Investigations Report 2014–5177, 24 p. and additional downloads, tables 2–5, 8–13, and 18, <u>https://doi.org/10.3133/sir20145177</u>.

CEMVS-RD SUBJECT: 2023 Rule, as amended, Approved Jurisdictional Determination in Light of *Sackett v. EPA*, 143 S. Ct. 1322 (2023), MVS-2021-335

**Stream reaches and orders were determined based on field delineated channels, where applicable. In areas where field delineations had not been completed, assumptions were made based on available desktop resources and correlations with the field delineated channels.

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.

