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): 8/31/2020
ORM Number: MVS-2019-314 (P-3122)
Associated JDs: N/A
Review Area Location[1]: State/Territory: MO City: Bloomsdale County/Parish/Borough: Sainte Genevieve
Center Coordinates of Review Area: Latitude 38.08680 Longitude -90.238804

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
N/A.	N/A.	N/A.	N/A.	N/A.

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
N/A.	N/A.	N/A.	N/A.	N/A.

Adjacent wetlands ((a)(4) waters):				
(a)(4) Name	(a)(4) Size		(a)(4) Criteria	Rationale for (a)(4) Determination
N/A.	N/A.	N/A.	N/A.	N/A.

[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.

D. Excluded Waters or Features

Excluded waters ((b)(1) – (b)(12)):[4]				
Exclusion Name	Exclusion Size		Exclusion[5]	Rationale for Exclusion Determination
Ephemeral Feature 1	441	linear feet	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool.	This 2'- 4' wide ephemeral feature is in the steep Morrison Hollow bluff formation adjacent to the Mississippi River. Herbaceous vegetation is growing within the unconsolidated gravel, silt and debris filled ephemeral feature. Currently no defined Ordinary High Water elevation (OHW), shelving, flow or water is present in the drainage path. Recent heavy precipitation events washed and filled the feature with gravel and debris from the adjacent hillsides. The drainage feature conveys steep overland precipitation induced flow for short durations. Physical evidence of the ephemeral feature terminates at the base of the bluff where subsurface flow enters a fescue field. No defined surface channel features or associated surface hydrologic connectivity to the nearest tributary is identifiable within the fescue field.
Ephemeral Feature 2	490	linear feet	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool.	This 1'- 4' wide ephemeral feature is in the steep Morrison Hollow bluff formation adjacent to the Mississippi River. Vegetation growth is present in this unconsolidated gravel, silt and debris filled ephemeral feature. No defined OHW, shelving, flow or water is present after a recent above average precipitation event filled this drainage feature with unconsolidated gravel and debris from the adjacent hillsides. The ephemeral feature conveys steep overland precipitation induced flow for a short duration with some subsurface flow, but it is typically dry the majority of the year. Evidence of the drainage feature terminates at the base of the bluff where subsurface flow enters an adjacent fescue field. Attempts to take soil samples in the fescue field, near the drainage terminus, resulted in a finding of buried alluvial deposits of pebble to gravel sized material. Varying depths of alluvial sediment are also present just beneath the fescue vegetated surface. No defined surface channel features or associated surface hydrologic connectivity to the nearest tributary is physically identifiable within the fescue field.

[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
Ephemeral Feature 3	588	linear feet	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool.	This 1' – 3' ephemeral feature is in the steep Morrison Hollow bluff formation adjacent to the Mississippi River. This drainage source is located in slightly steeper topography than Ephemeral Features 1 and 2, with larger scattered pieces of natural stone in the upper half of the watershed. Smaller unconsolidated gravel, silt and debris is more prominent in the downstream half of the drainage feature with vegetation growth within the flow path. No defined OHW, shelving bed and bank features are consistently present. No flow or water is present in the ephemeral drainage feature within 24 hours after an above average rainfall event. Evidence of the recent heavy rain event flushed gravel, silt and debris into the drainage path from the adjacent hillsides from the upper to lower portions of the watershed. The ephemeral drainage feature conveys overland precipitation induced flow from the adjacent steep landscape for short durations. The presence of herbaceous vegetation growing within the drainage feature further supports evidence the channel is dry the majority of the time. Herbaceous vegetation would not tolerate the more frequent to continuous presence of water associated with intermittent and perennial flows. The physical drainage characteristics completely terminate at the downstream base of the bluff where subsurface flow enters the adjacent fescue field. No defined surface flow features or associated surface hydrologic connectivity to the nearest tributary is identifiable within the fescue field or the nearest tributary, Morrison Creek.
Ephemeral Feature 4	678	linear feet	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool.	This 1'- 2' wide drainage feature is in the steep Morrison Hollow bluff formation adjacent to the Mississippi River. A timber clear cut occurred approximately 2 - 3 years ago within the valley where this drainage feature exists. The stumps are still present, as well as a heavy stand of herbaceous growth and tree saplings naturally re-vegetating within the drainage feature itself and the adjacent clear cut areas. The flow path and location of the drainage feature cannot be seen through the thick re-vegetating growth without physically walking the area and pushing the vegetation aside. The vegetation growing and surviving within the ephemeral feature is

Excluded waters ((b)(1) – (b)(12)):[4]				
Exclusion Name	Exclusion Size		Exclusion[5]	Rationale for Exclusion Determination
				further evidence that infrequent and short duration flows are the most common hydrologic event type. If the ephemeral feature and associated drainage area supported larger reoccurring intermittent to perennial flows, the current vegetation in the flow path would not withstand, survive, or be present. Infrequent discharges of rainwater runoff into the ephemeral feature flows into Morrison Creek. No discharge of flow from the drainage feature was present on the day of the site visit, which was conducted within 24 hours after an above average 2.9 inch rain event occurred at the site. However, steady flow was observed in directly adjacent portions of the intermittent flow path of Morrison Creek on the same day and at the same time as the evaluation of this ephemeral drainage feature. No surface flow or water was present within this ephemeral drainage feature and no surface flow into Morrison Creek was evident on the review date.
Ephemeral Feature 5	1,842	linear feet	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool.	This 2' wide drainage feature is located in a broader, steep valley of the Morrison Hollow river bluff formation adjacent to the Mississippi River. A timber clear cut occurred approximately 2 - 3 years ago within the valley where this ephemeral feature exists. The stumps are still present, as well as a heavy stand of herbaceous growth and tree saplings naturally re-vegetating within the ephemeral feature itself and the adjacent clear cut area. The path and location of the ephemeral feature cannot be seen through the thick new growth without physically walking the area and pushing the vegetation aside. The vegetation growing within the ephemeral feature is further evidence that infrequent and short duration flow is the most common hydrologic event type. If the drainage feature and associated drainage area supported longer, reoccurring intermittent to perennial flows, the current vegetation in the flow path would not withstand, survive, or be present. Short duration discharges of rainwater runoff into this ephemeral feature flows into Morrison Creek. No water or discharge of flow from this ephemeral feature was present on the day of the site visit, which was conducted within 24 hours after an above average 2.9 inch rain event

Excluded waters ((b)(1) – (b)(12)):[4]				
Exclusion Name	Exclusion Size		Exclusion[5]	Rationale for Exclusion Determination
				occurred at the site. However, steady flow was observed in directly adjacent portions of the intermittent flow path of Morrison Creek on the same day and at the same time as the evaluation of this ephemeral drainage feature.

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: Title(s) and date(s)
This information Select. 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 and Other: Google Earth and USDA NAIP aerials, LiDAR with contour review, 28 June 2019 and 22 July 2020 site visit photographs.

☒ Corps site visit(s) conducted on: 28 June 2019 and 22 July 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: 1:12K USFWS Online NWI Surface Water and Wetland Mapper, Querried 8/13/20. No blue line surface water features shown in the five evaluated ephemeral features.

☒ USGS topographic maps: 1:24K Bloomsdale MO 1970 and 2017 USGS Topo Maps. No blue lines shown in the five evaluated ephemeral features.

Other data sources used to aid in this determination:

Data Source (select)	Name and/or date and other relevant information
USGS Sources	1970 and 2017 1:24K Bloomsdale MO USGS Topographic Maps
USDA Sources	NAIP Aerial Photography
NOAA Sources	NOAA Daily Global Historical Climatology Network
USACE Sources	Antecedent Precipitation Tool
State/Local/Tribal Sources	N/A.
Other Sources	Google Earth, USFWS NWI Surface Water and Wetland Mapper

B. Typical year assessment(s): The Antecedent Precipitation Tool was used to assess conditions for the July 22, 2020, site visit compared to 30 years of data in NOAA's Daily Global Historical Climatology Network. The site visit was conducted during the typical dry season, but the corresponding monthly Palmer Drought Severity Index showed site conditions to be under severe wetness. The 30 day rolling precipitation totals indicated site conditions were above NOAA's upper 70th percentile limits for the 30 year average precipitation range. The compiled data rated the area containing the evaluated ephemeral features under "Wetter Than Normal" conditions at the time of the July 22, 2020, site visit. The confirmed wetter than normal site conditions and the lack of standing water and the lack of flow in the five evaluated areas further confirms and supports the determinations they are non-jurisdictional, excluded (b)(3) ephemeral features.

C. Additional comments to support AJD: Specific details and supporting comments regarding each of the five (b)(3) ephemeral features excluded from Clean Water Act jurisdiction is shown in the table located in Section II.D