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): 1/12/2021
ORM Number: MVS-2018-132 Kenny Ross Construct Lake
Associated JDs: N/A
Review Area Location[1]: State/Territory: MO City: Scopus County/Parish/Borough: Bollinger
Center Coordinates of Review Area: Latitude 37.415575 Longitude -89.925606

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
Baker Branch	1,600	linear feet	(a)(2) Perennial tributary contributes surface water flow directly or indirectly to an (a)(1) water in a typical year.	Channel contributes perennial surface water flow on a typical year, which was observed during two site visits. Fish were found to be utilizing the stream length during site visits and evidence of groundwater seeps contributing to the stream flow were present. The USGS Topo map has this area transitioning from perennial to intermittent flow; Southern Baker Branch Tributary is the intermittent upper reach of this perennial length. Within the review area there is a low water crossing structures that does not sever jurisdiction as water passes through the structure in

[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
				a typical year. Baker Branch flows into Little Whitewater Creek, Whitewater River, Headwater Diversion Channel to an (a)(1) water, the Mississippi River.
Southern Baker Branch Tributary	1,430	linear feet	(a)(2) Intermittent tributary contributes surface water flow directly or indirectly to an (a)(1) water in a typical year.	Upper reach of Baker Branch that has intermittent surface flows during a typical year. As the downstream most section of an intermittent water flows are present for greater than 3 months of the year and seasonal groundwater seeps contribute to flow. An at grade low water crossing is present within the length in the review area but allows unimpeded connection with the downstream length and does not sever the jurisdictional status. This reach flows into the perennial length of Baker Branch then onto Little Whitewater Creek, Whitewater River, Headwater Diversion Channel to an (a)(1) water, the Mississippi River
Northwest Baker Branch Tributary	975	linear feet	(a)(2) Intermittent tributary contributes surface water flow directly or indirectly to an (a)(1) water in a typical year.	The tributary contributes intermittent flow downstream to the perennial Baker Branch. During the December site visit numerous pools were observed in the length with fragmented flow between the pools. The presence of macroinvertebrates was unable to be evaluated due to the seasonally cooler temperatures. Although specific seeps were not identified there was a distinctly increased number of pools and the connectivity of flow within this reach, indicative of surface flow greater than 3 months a year. This reach has a driveway crossing in the review area that allows for intermittent surface flow to the downstream length and the feature does not sever jurisdiction. The Northwest Baker Branch Tributary flows downstream in the perennial Baker Branch to Little Whitewater Creek, Whitewater River, Headwater Diversion Channel to an (a)(1) water, the Mississippi River

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
Stock Pond	0.39	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.	Pond that was constructed to impound a spring that flows from the toe of the adjacent hillside into Baker Branch. The pond currently outlets from a pipe under the driveway into the perennial portion of the upper branch of Baker Branch. Baker Branch to Little Whitewater Creek, Whitewater River, Headwater Diversion Channel to an (a)(1) water, the Mississippi River. The USGS Topo Map at a 1:24,000 scale does not identify this feature.

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.

D. Excluded Waters or Features

Excluded waters ((b)(1) – (b)(12)):[4]				
Exclusion Name	Exclusion Size		Exclusion[5]	Rationale for Exclusion Determination
Ephemeral Stream 1	2,230	linear feet	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool.	Ephemeral Stream 1 drains a localized 60 acre watershed that contains 6 acre lake that the streams origination. The streambed was dry with lots of rough cobble along the bed with a steep stream profile. No surface water flow was seen at any portion of the stream length during the site visit and the feature was determined to only contribute surface water runoff following storm events, meeting the definition of an ephemeral stream. The tributary is mapped as an intermittent length in USGS Topo Maps but on-site conditions did not support this determination. A newly constructed upstream impoundment built sometime between 2015 and 2018, which captures the majority of the watershed above this reach, may have affected the hydrology within this reach. If the impoundment is not allowing for intermittent discharges from the outfall structure within a typical year then dewatering of this length may have occurred. Ephemeral Stream 1 flows directly into the perennial Baker Branch, then onto Little Whitewater Creek, Whitewater River, Headwater Diversion Channel to an (a)(1) water, the Mississippi River
Ephemeral Stream 2	690	linear feet	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool.	Ephemeral Stream 2 drains a 45 acre watershed, composed of the hillside drainage between Intermittent Stream 1 and Ephemeral Stream 3 and flows into Baker Branch. The stream supports surface flow in direct response to rainfall events, no sustained flow or pools were present. The USGS Topo Maps show topographic relief that would indicate a drainage feature but no blue line mapping was shown. Baker Branch to Little Whitewater Creek, Whitewater River, Headwater Diversion Channel to an (a)(1) water, the Mississippi River

[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 Stream 3	515	linear feet	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool.	Ephemeral Stream 3 drains another localized 30 acre watershed just to the north of Ephemeral Stream 2 and drains into Baker Branch. The stream supports surface flow following rainfall events and does not support flow or pools outside of in response to rainfall events. The USGS Topo Maps show topographic relief that would indicate a drainage feature, but no blue line mapping was shown. Baker Branch to Little Whitewater Creek, Whitewater River, Headwater Diversion Channel to an (a)(1) water, the Mississippi River
Ephemeral Stream 4	1,945	linear feet	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool.	Ephemeral Stream 4 is the upper reach of Intermittent Stream 2. The reach drains a 100 acre watershed that includes the 30 acre watershed of Ephemeral Stream 5. The surface flows in this reach are in response to rainfall events. A distinct lack of the pools and that were present within the downstream intermittent reach support a determination of ephemeral flows in this upper reach. The USGS Topo Maps show topographic relief that would indicate a drainage feature, but no blue line mapping was shown. Ephemeral Stream 4 flows into the Intermittent Stream 2 reach before flowing into the perennial, Baker Branch to Little Whitewater Creek, Whitewater River, Headwater Diversion Channel to an (a)(1) water, the Mississippi River
Ephemeral Stream 5	975	linear feet	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool.	Ephemeral Stream 5 drains a 30 acre watershed into Ephemeral Stream 4. No flow was present at the time of the site visit and the drainage appears to support flow only in response to rainfall events. The USGS Topo maps show topographic relief that would indicate a drainage feature, but no blue line mapping was shown. The Ephemeral Stream 5 flows into Ephemeral Stream 4, then into the Intermittent Stream 2 reach and then into Baker Branch to Little Whitewater Creek, Whitewater River, Headwater Diversion Channel to an (a)(1) water, the Mississippi River

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: Title(s) and/or date(s).

☒ Corps site visit(s) conducted on: May 31, 2018 and December 22, 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: USDA SoilWeb Google Earth layer with live link to USDA-NCSS SSURGO and STATSGO Soil Survey Products; quieried 1/8/2021

☒ USFWS NWI maps: Wetlands Mapper, live linked FWS Wetlands & Riparian layer; quieried 1/8/2021

☒ USGS topographic maps: Scopus Quardrangle 1:24,000 scale, years: 2017, 2015, 2012, 1980

Other data sources used to aid in this determination:

Data Source (select)	Name and/or date and other relevant information
USGS Sources	N/A.
USDA Sources	N/A.
NOAA Sources	N/A.
USACE Sources	N/A.
State/Local/Tribal Sources	N/A.
Other Sources	N/A.

B. Typical year assessment(s): Two site visits were conducted by the Corps to evaluate the aquatic resources on the property, with different areas of focus during each of the visits. These two visits provide a good reference point as one was conducted during wetter spring time and another completed in drier winter conditions. During the first visit on May 31, 2018 the Corps viewed Baker Branch, Ephemeral Stream 1, Intermittent Stream 1, Ephmeral Stream 2 and Ephemeral Stream 3. During this May 2018 site visit the daily rainfall values (and those days immediately proceeding) were witin the normal range of a typical year. The Palmer Index found that conditions were of mild wetness during the site visit due to the rainfall quantities in the previous two months being substaintially higher than normal. With the karst topography in the area supporting springs on the site and in the vicinity this could have had an influence on site conditions depending on subterrenian flow rates (no information available on the springs on this site specifically). The second site visit was completed on December 22, 2020 and Baker Branch, Ephemeral Stream 1, the Stock Pond, Intermittent Stream 2, Ephemeral Stream 4 and 5 were viewed at that time. During the December 2020 site visit the daily rainfall values (and those days immediately proceeding) were within the normal range of a typical year. The Palmer Index found that the site visit was during a period of severe wetness due to above average precipitation rates in the preceeding month of Novermber. The month of December was within the normal rainfall range and with the site visit at the end of the month the hydrology would have regained normal conditions.

C. Additional comments to support AJD: In the adjacent hillside to Ephemeral Stream 1 is a mapped, named stream Stillhouse Spring that flows into Baker Branch downstream of the review area portion. It does indicate that the area consists of karst topography with the potential for the landscape to contain ground water seeps and springs as well as losing streams where flows infiltrate the streambed into groundwater. As a note the USGS Topo maps had consistant mapping of the features throughout the various years accessed at the 1:24,000 scale.