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): 7/13/2021
ORM Number: SPA2021-205
Associated JDs: N/A
Review Area Location[1]: State/Territory: New Mexico City: Kewa County/Parish/Borough: Sandoval
Center Coordinates of Review Area: Latitude 35.5178881° Longitude -106.348431°

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
Galisteo Creek	1740	linear feet	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool.	See Section III. C below for information supporting the exclusion determination.
Unnamed Tributary to Galisteo Creek	500	linear feet	(b)(3) Ephemeral feature, including an ephemeral stream, swale, gully, rill, or pool.	See Section III. C below for information supporting the exclusion determination.

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: **Beta Arid West Streamflow Duration Assessment Method**

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:
☐ Corps site visit(s) conducted on: Date(s).
☐ 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: July 7, 2021
☒ USFWS NWI maps: July 7, 2021
☒ USGS topographic maps: NM 2020

Other data sources used to aid in this determination:

Data Source (select)	Name and/or date and other relevant information
USGS Sources	N/A.
Other USDA data (specify)	N/A.
NOAA Sources	N/A.
USACE Sources	N/A.
State/Local/Tribal Sources	N/A.
Other Sources	A. Park Williams, Edward R. Cook, Jason E. Smerdon, Benjamin I. Cook, John T. Abatzoglou, Kasey Bolles, Seung H. Baek, Andrew M. Badger, Ben Livneh. 2018. Large Contribution from Anthropogenic Warming to an Emerging North American Megadrought. Science. Vol. 368 Issue 6488. Pp. 314-318.

[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.

B. Typical year assessment(s): According to the Antecedent Precipitation Tool (APT), July through October is the time of year with the most precipitation over a 30-year rolling period for the review area; and the monsoon season occurs between mid-June and the end of September. However, it should be noted that upon reviewing the ATP results discussed in the next section, this area experiences a highly variable amount of precipitation each year. Due to this lack of a consistent amount of precipitation from year to year for the review area, it is difficult to determine whether the analysis has been conducted during normal, wetter, or drier conditions. Regardless, the results of this AJD are not heavily reliant on the typical year assessment.

It is also worth noting that a recent study by Columbia University notes that the American Southwest is experiencing a historic "megadrought" not seen in centuries. In fact, for several western states, including New Mexico, the last twenty years ranks as the second-driest period in the past 1,200 years (A. Park. Williams, 2018). Based on this data, it seems reasonable that in New Mexico a typical year within the 30-year rolling period is characterized by drought conditions—even severe drought conditions.

C. Additional comments to support AJD: The review area for this AJD includes the location of one planned project (drainage channel improvements) by the applicant.

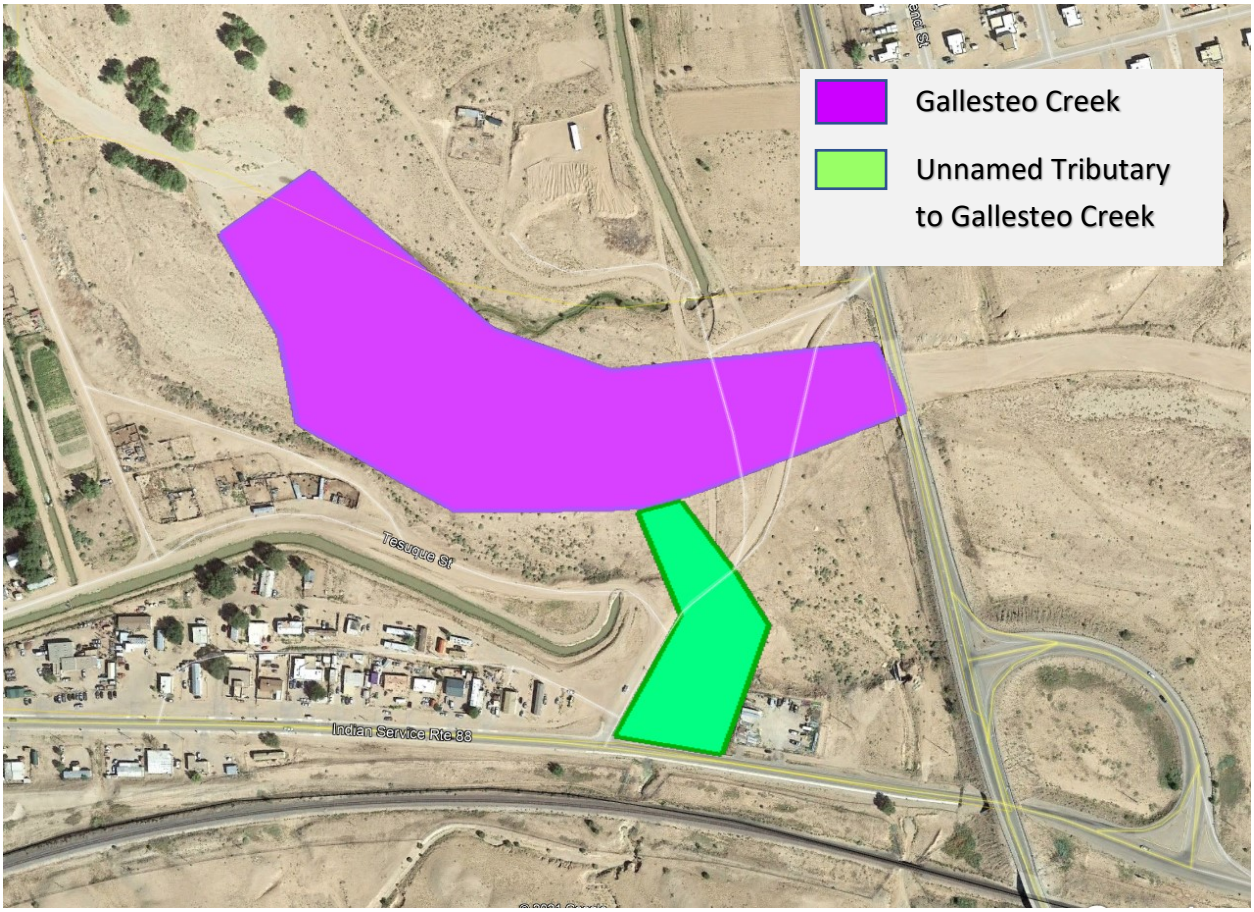
According to information provided by the Natural Resources Conservation Service, the review area has a semi-arid continental climate. There are distinct seasonal temperature variations. Mean annual precipitation varies from 10 to 16 inches. The overall climate is characterized by cold dry winters in which winter moisture is less than summer. Wide yearly and seasonal fluctuations are common for this climatic zone which can range from 5 to 25 inches. Of this, approximately 25-35% falls as snow, and 65-75% falls as rain between April 1 and November 1. The growing season is April through September. As much as half or more of the annual precipitation can be expected to come during the period of July through September. August is typically the wettest month of the year. The average annual total snowfall is 29.1 inches. Mean daily annual air temperature is about 29ºF to 69ºF, averaging about 37ºF for the winter and 67ºF in the summer.

There are two predominate soil types present in the review area: Riverwash complex, (90 percent) and Sedillo very gravelly fine sandy loam. The Riverwash complex soils typical profile consists of 0 to 6 inches of sand in the A Horizon and 6 to 60 inches stratified coarse sand to sandy loam in the C Horizon. The other soil in the area is the Sedillo very gravelly fine sandy loam soil, which is described as Well drained with a depth to restrictive feature of more than 80 inches and a depth to water table greater than 80 inches. The soil is also characterized as having a Very low capacity and does not flood or pond. A typical profile for this soil consists of 0 to 2 inches of very gravelly fine sandy loam in the A Horizon, 2 to 8 inches of very gravelly sandy clay loam in the Bt Horizon, .8 to 12 inches of very gravelly sandy loam in the Bk1 horizon, and 12 to 60 inches of extremely gravelly sandy loam in the Bk2 horizon.

The results of a Stream Duration Assessment Survey (SDAM) of the review area conducted on June 10, 2021 and prepared by Joseph Grimley, Hydrologist, High Water Mark, LLC was submitted with the AJD request. The Beta Arid West SDAM states that:

- The reach appeared to have no surface hydrology and the groundwater table for nearby gauges is approximately 90ft below the bed surface.
- No observed hydrology or evidence of recently flowing water.
- The vegetation observed in and around the surrounding reach of interest ranged from Facultative to Facultative Upland species, as designated in the USACE - Arid West: Regional Wetland Plant List. The overall ground cover of vegetation for the reach was less than 5%. The forbs identified were typical of dry arroyo beds and Pinyon-Juniper Woodlands. No hydrophytic vegetation was encountered during the site assessment.
- The reach appeared to have no signs of aquatic invertebrates during the 15-minute search. In addition, there was no evidence of aquatic stages of EPT (Ephemeroptera, Plecoptera, or Trichoptera).
- Algae was not detected in the survey area.
- No single indicator species were present at the site.

In addition to the field assessment conducted by High Water Mark, LLC, the APT was run for the following additional dates in conjunction with reviewing satellite imagery of the review area: December 18, 2020, June 10, 2020, June 1, 2020, April 4, 2018, November 1, 2015, and January 17, 2013 (see document 2021-205 APT Batch Results.pdf and 2021-205 Satellite images.pdf). The dates of December 18, 2020, June 10, 2020, June 1, 2020, and April 4, 2018 were selected because there is satellite imagery available for those dates and there was at least one precipitation event within the previous 2 weeks of that date of at least 0.2" of rain. The date of November 1, 2015 was selected because the drought index is listed as "Moderate wetness" approximately 2 weeks prior to this date there was an approximately 0.75" precipitation event and no signs of surface water or flow in the satellite imagery. Upon review of satellite imagery for these dates, no surface water or indication of recent flows were observed in the stream channel. As such, and in consideration of the other information provided above, it has been determined that the stream channel comprising the review area only experiences occasional flows in response to rain events and, therefore, is ephemeral.


Gallesteo Creek
Unnamed Tributary to Gallesteo Creek
Tesuque St
Indian Service Rte 88